

## Summary of Available Data for LOU 43 and LOU 61 in Evaluation Areas 08 and 09

Tronox Facility – Henderson, Nevada

- Name of Facility:** Unit 4 and Unit 5 Basements
- Goal of Closure:**
- Unit 4
- Closure, for commercial/industrial future use.
- Unit 5
- Continuation of current use – regulatory closure not presently requested.
- Site Investigation Area:**
- Note: The area under investigation is a single LOU comprising two structures, Unit 4 in EA09 and Unit 5 in EA08. Both are addressed below.
  - Size: Each building is approximately 200 feet by 250 feet (2.3-acres).
  - Location: Southeastern portion of the site, south of Chemstar facility.
- Description:**
- Sodium chlorate and sodium perchlorate were produced by electrolytic processes on the first floor of Units 4 and 5, in LOU 43, from 1945 to 1989. Sodium perchlorate production ceased approximately 1998 [Ref. 4].
  - Sodium chlorate and sodium perchlorate processes involved use sodium dichromate (hexavalent chromium) [Ref. 4].
  - Basements of both units were concrete-lined and were used as sumps to collect spillage and wash water [Ref. 4].
  - Floor cracks and deterioration noted (repairs in 1983 and 1984) in both Unit buildings. When the process was decommissioned, the process equipments (tanks, pipes, pumps etc.) were dismantled and transported off-site for disposal or recycling [Ref. 4].
  - Residual materials were managed as hazardous waste and transported to TSDF in Beatty, NV [Ref. 4].
  - Building areas were cleaned and made available for other uses [Ref. 4].
  - Since decommissioning of sodium chlorate process equipment in 1991, only portions of the Unit 5 building remain active in manufacturing manganese dioxide, boron, etc., and are reserved for future manufacturing use [Ref. 1].
- Known Potential Chemical Classes:**
- Metals
  - Hexavalent chromium
  - Perchlorate
  - Wet chemistry analytes

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Process Waste Stream	Known or Potential Constituents Associated with LOU 43
Sodium chlorate production wastes	<ul style="list-style-type: none"> <li>• Wet chemistry analytes</li> <li>• Chlorate</li> <li>• Hexavalent chromium</li> <li>• Ammonia</li> </ul>
Sodium perchlorate production wastes	<ul style="list-style-type: none"> <li>• Wet chemistry analytes</li> <li>• Perchlorate</li> <li>• Hexavalent chromium</li> <li>• Ammonia</li> </ul>
Manganese dioxide production wastes	<ul style="list-style-type: none"> <li>• Manganese</li> </ul>
Boron, Boron trichloride, Boron tribromide production wastes	<ul style="list-style-type: none"> <li>• Boron</li> </ul>

**Known or Potential Release Mechanisms:**

- Potential leaks or spills from basement sumps into the underlying soil and groundwater through the concrete floor or via cracks or deterioration of the concrete floors [Ref 4].
- In 1985, a hydrogeologic report by KMCC indicated that chromium contamination in groundwater originated from leakage of process solutions [Ref. 4].
- Concrete sealing and repairs of basement floors conducted in 1983 and 1984 [Ref. 4].

**Results of Historical Sampling:**

- Downgradient monitoring wells M-11, and M-12A are tested for hexavalent chromium and perchlorate as part of periodic or routine groundwater monitoring program. Analytical results are summarized on attached tables "LOU 43 Table 6" [Ref. 2].

**Did Historical Samples Address Potential Release?**

- Yes

**Summary of Phase A SAI:**

Soil

- None specifically conducted within this LOU. Closest borings (SA06 and SA07) are north (downgradient) and were partially designed to evaluate this LOU [Ref. 2].

Groundwater

- None specifically conducted within this LOU. Closest wells sampled (M-12A and M-11) are north (downgradient) and were partially designed to evaluate this LOU [Ref. 2].
- Analytical results for soil and groundwater from the Phase A sampling event are summarized in the attached tables: "LOU 1 Tables 1 through 5 and Tables 7 through 22" (see

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attached).

## Are Phase A Sample Locations in "Worst Case" Areas?

- Not completely. Phase A borings are located downgradient of the Unit buildings; however, there are no borings located within the Unit building footprints.

## Is Phase B Investigation Recommended?

- Yes

## Proposed Phase B Soil Investigation/Rationale:

- The following soil borings will be sampled as part of the focused Phase B Investigation for this LOU:
- Boring SA161 located within the western boundary of Unit 4 to evaluate local soil conditions due to potential releases from the basement soil to the underlying floor.
- Boring SA32 located within the eastern portion of Unit 4 to evaluate local soil conditions due to potential releases in the vicinity of LOU 43 due to releases from the basement floor to the underlying soil.
- Investigation directly through the Unit 5 building will be delayed until it is removed from service. Nearby borings include:
- Boring SA132 adjacent to southeast corner of Unit 5 as a stepout used to evaluate local soil conditions due to potential releases and to evaluate LOU 33.
- Boring SA31 located approximately 120 feet south (upgradient) of Unit 4 as a stepout used to evaluate local soil conditions due to potential releases.
- Boring SA33 approximately 10 feet south (upgradient) of Unit 5 as a close stepout to evaluate local soil conditions due to potential releases and to evaluate LOU 40. Subsurface utilities prevent closer location.
- Boring SA34 between Unit 5 and Unit 6, approximately 60 feet east of Unit 5 as a stepout used to evaluate local soil conditions due to potential releases.
- Boring SA36 approximately 80 feet north (downgradient) of northwest corner of Unit 5 as a stepout used to evaluate local soil conditions due to potential releases for both Units 4 and 5.
- Boring SA126 approximately 70 feet north (downgradient) of the northwest corner of Unit 4 as a stepout to evaluate local soil conditions due to potential releases. Boring SA126 also applies too LOU 11, LOU 12, and LOU 15 as well.
- The following randomly selected soil boring locations will be sampled as part of the site-wide Phase B Investigation, and are located adjacent to this LOU:
  - SAQ6-R1, SAR6-R1, SAR7-R1 and SAR8-R1,

*Note that we're using the Unit 4 data to determine U.S. together*

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## Proposed Phase B Constituents List for Soils:

### LOU Specific Analytes:

- Metals (Phase A List)
- Hexavalent chromium
- Wet chemistry analytes
- Perchlorate

### Additional Analytes for Area Coverage:

- TPH-DRO
- VOCs
- Asbestos
- Radionuclides
- PCBs

## Proposed Phase B Groundwater Investigation/Rationale:

- The following wells will be sampled as part of the focused Phase B Investigation for this LOU:
- Investigation directly through the Unit 5 building will be delayed until it is removed from service. Nearby wells will include:
- Well M-12A (downgradient of LOU) located approximately 100 feet north of Unit 4 will be sampled used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
- Well M-11 (downgradient) located approximately 70 feet north of Unit 5 will be sampled used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
- Well M-52 (downgradient) located approximately 400 feet north of Units 4 and 5 used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
- Well M-77 (downgradient) located approximately 450 feet northeast of Unit 5 used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
- Well M-10 (upgradient) located approximately 500 feet south of Units 4 and 5 used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.

## Proposed Phase B Constituents List for Groundwater:

### LOU Specific Analytes

- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes

### Additional Analytes for Area Coverage:

- Radionuclides
- VOCs
- Tungsten

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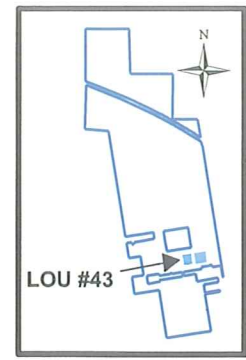
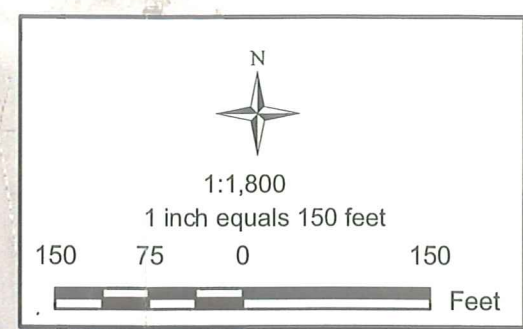
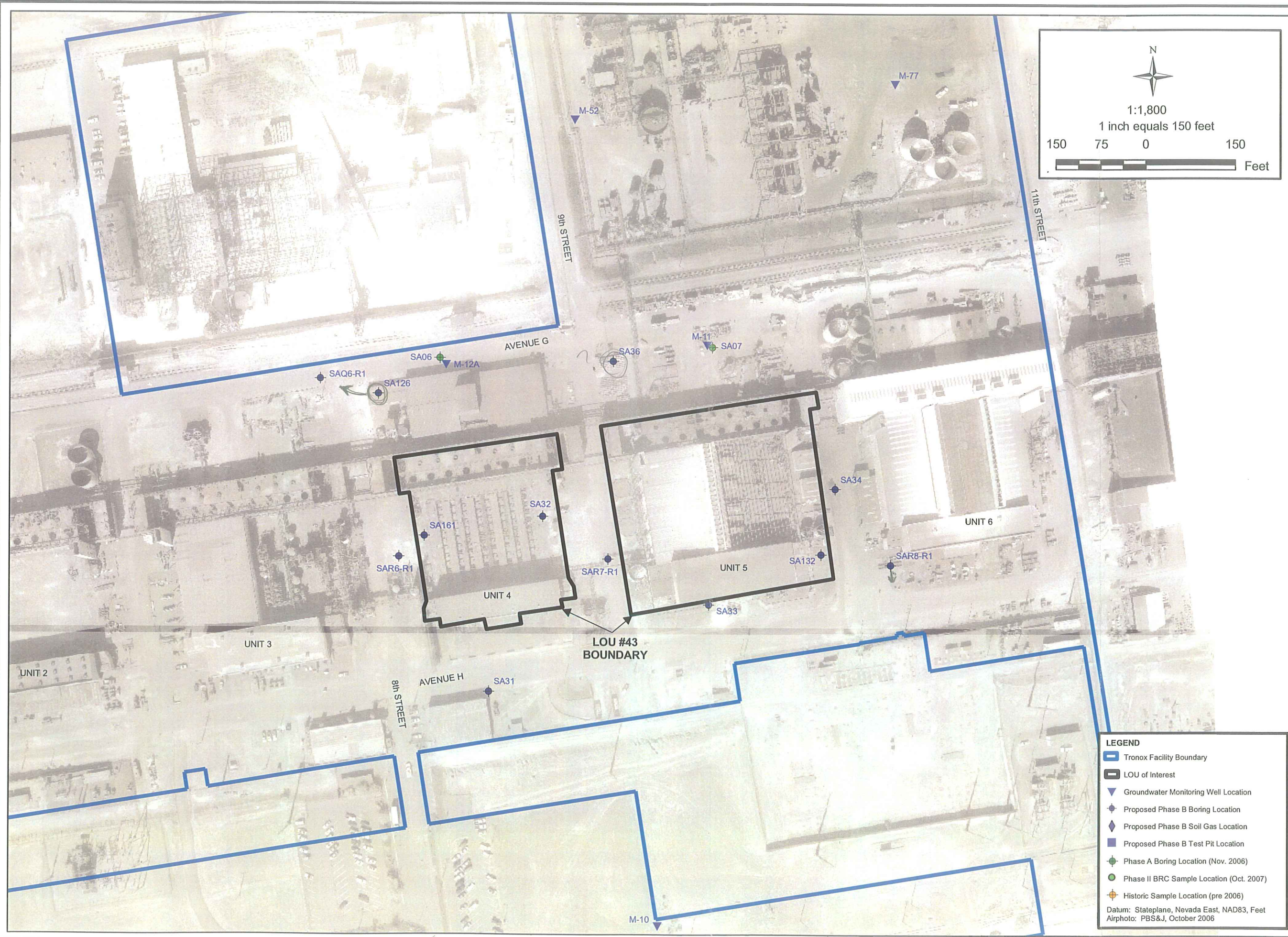
- Proposed phase B Soil Gas Investigation/Rationale:**
- None proposed specifically for this LOU.
- Proposed Phase B Constituents List for Soil Gas:**
- None

### 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).

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Tronox Facility – Henderson, Nevada

**LOU Map**



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<b>SAMPLE LOCATIONS FOR LOU #43</b>	
Phase B Source Area Investigation	
Tronox Facility	
Henderson, Nevada	
SCALE:	AS SHOWN
DATE:	2/11/2008
PROJECT NUMBER:	04020-023-430

**LEGEND**

- Tronox Facility Boundary
- LOU of Interest
- Groundwater Monitoring Well Location
- Proposed Phase B Boring Location
- Proposed Phase B Soil Gas Location
- Proposed Phase B Test Pit Location
- Phase A Boring Location (Nov. 2006)
- Phase II BRC Sample Location (Oct. 2007)
- Historic Sample Location (pre 2006)

Datum: Stateplane, Nevada East, NAD83, Feet  
 Airphoto: PBS&J, October 2006

FIGURE NUMBER:	<b>X</b>
SHEET NUMBER:	<b>X</b>

**Summary of Available Data for LOU 43 and LOU 61 in Evaluation Areas 08  
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Tronox Facility – Henderson, Nevada

**Soil and Groundwater Characterization Data**



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LOU-specific analytes identified include:

- Wet chemistry analytes
- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate

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

**LOU 4 Table 1 - Soil Characterization Data - Wet Chemistry**

**LOU 4 Table 2 - Groundwater Characterization Data - Wet Chemistry**

LOU 4 Table 3 - Soil Characterization Data - Dioxins and Dibenzofurans

**LOU 4 Table 4 - Soil Characterization Data - Metals**

**LOU 4 Table 5 - Groundwater Characterization Data - Metals**

LOU 4 Table 6 - Groundwater Characterization Data - Routine Monitoring

LOU 4 Table 7 - Soil Characterization Data - Organochlorine Pesticides (OCPs)

LOU 4 Table 8 - Groundwater Characterization Data - Organochlorine Pesticides (OCPs\*)

LOU 4 Table 9 - Soil Characterization Data - Organophosphorus Pesticides (OPPs)

LOU 4 Table 10 - Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

LOU 4 Table 11 - Soil Characterization Data - PCBs

LOU 4 Table 12 - Groundwater Characterization Data - PCBs

**LOU 4 Table 13 - Soil Characterization Data - Perchlorate**

**LOU 4 Table 14 - Groundwater Characterization Data - Perchlorate**

LOU 4 Table 15 - Soil Characterization Data - Radionuclides

LOU 4 Table 16 - Groundwater Characterization Data - Radionuclides

LOU 4 Table 17 - Soil Characterization Data - SVOCs

LOU 4 Table 18 - Groundwater Characterization Data - SVOC

LOU 4 Table 19 - Soil Characterization Data - TPH and Fuel Alcohols

LOU 4 Table 20 - Groundwater Characteristic Data - VOCs

LOU 4 Table 21 - Soil Characterization Data - VOCs

LOU 4 Table 22 - Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction

LOU 4 Table 23 - Hardesty Chemical Monitoring well MW-97 - Summary of Analytical Data



**LOU 43 Table 2**  
**Groundwater Characterization Data - Wet Chemistry**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	
Well ID	M11	M12A	
Sample ID	M11	M12A	
Sample Date	12/06/2006	12/05/2006	
<b>Wet Chemistry Parameters</b>			<b>Units</b>
Total Dissolved Solids	<b>3270</b>	<b>8170</b>	mg/L
Total Suspended Solids	<b>15.0 J</b>	<b>57.0 J</b>	mg/L
Alkalinity (as CaCO <sub>3</sub> )	5.0 U	5.0 U	mg/L
Bicarbonate	<b>205</b>	<b>381</b>	mg/L
Total Alkalinity	<b>205</b>	<b>381</b>	mg/L
Ammonia (as N)	50.0 U	50.0 U	ug/L
MBAS	<b>0.20</b>	<b>0.41</b>	mg/L
Cyanide	R	R	ug/L
pH (liquid)	<b>7.7 J</b>	<b>7.8 J</b>	none
Specific Conductance	<b>2360 J+</b>	<b>3660 J+</b>	umhos/cm
Bromide	25.0 U	25.0 U	mg/L
Chlorate	<b>421</b>	<b>2370</b>	mg/L
Chloride	<b>239</b>	<b>1030</b>	mg/L
Nitrate (as N)	<b>3.4</b>	<b>15.2</b>	mg/L
Nitrite	<b>3.1</b>	10.0 U	mg/L
ortho-Phosphate	5.0 U	500 U	mg/L
Sulfate	<b>1290</b>	<b>1510</b>	mg/L
Total Organic Carbon	50 U	50.0 U	mg/L

**Notes:**

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

**LOU 43 Table 3**  
**Soil Characterization Data - Dioxins and Dibenzofurans**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	Ph A	
Sample ID	SA6	SA6	SA7	
Sample Depth (ft)	0.5	0.5	0.5	
Sample Date	11/14/2006	11/14/2006	11/20/2006	
Chemical Name				Units
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (a) ng/kg	0.64		192	ng/kg
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (a) ng/kg			169	ng/kg
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (b) ng/kg	0.72		192	ng/kg
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (b) ng/kg			169	ng/kg
1,2,3,4,6,7,8-Heptachlorodibenzofuran	7.730	2.554	927.107	ng/kg
1,2,3,4,6,7,8-Heptachlorodibenzofuran			873.925 J	ng/kg
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1.036	0.461	85.450	ng/kg
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin			85.45	ng/kg
1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.617	0.801	392.108	ng/kg
1,2,3,4,7,8,9-Heptachlorodibenzofuran			392.11	ng/kg
1,2,3,4,7,8-Hexachlorodibenzofuran	2.392	0.864	372.915	ng/kg
1,2,3,4,7,8-Hexachlorodibenzofuran			372.915	ng/kg
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.059 U	0.055 U	8.841	ng/kg
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin			8.841	ng/kg
1,2,3,6,7,8-Hexachlorodibenzofuran	1.665	0.552	249.626	ng/kg
1,2,3,6,7,8-Hexachlorodibenzofuran			249.626	ng/kg
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.191	0.140	19.448	ng/kg
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin			19.448	ng/kg
1,2,3,7,8,9-Hexachlorodibenzofuran	0.259	0.145	31.354	ng/kg
1,2,3,7,8,9-Hexachlorodibenzofuran			31.353	ng/kg
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.256	0.176	21.698	ng/kg
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin			21.698	ng/kg
1,2,3,7,8-Pentachlorodibenzofuran	0.886	0.456	199.693	ng/kg
1,2,3,7,8-Pentachlorodibenzofuran			199.692	ng/kg
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	0.059 U	0.047 U	16.175	ng/kg
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin			16.175	ng/kg
2,3,4,6,7,8-Hexachlorodibenzofuran	0.795	0.262	112.484	ng/kg
2,3,4,6,7,8-Hexachlorodibenzofuran			112.484	ng/kg
2,3,4,7,8-Pentachlorodibenzofuran	0.279 U	0.195	92.926	ng/kg
2,3,4,7,8-Pentachlorodibenzofuran			92.927	ng/kg
2,3,7,8-Tetrachlorodibenzofuran	1.724	0.752	369.233	ng/kg
2,3,7,8-Tetrachlorodibenzofuran			136.994 J	ng/kg
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	0.077 U	0.059 U	8.965	ng/kg
2,3,7,8-Tetrachlorodibenzo-p-Dioxin			8.965	ng/kg
Octachlorodibenzofuran	20.727	6.640	2502.073	ng/kg
Octachlorodibenzofuran			2338.457 J	ng/kg
Octachlorodibenzo-p-Dioxin	6.287	2.965	191.912	ng/kg
Octachlorodibenzo-p-Dioxin			191.912	ng/kg
Tetrachlorinated Dibenzofurans, (Total)			1642.861 J	ng/kg
Total HpCDD			151.421	ng/kg
Total HpCDF			1846.885 J	ng/kg
Total HxCDD			158.189	ng/kg
Total HxCDF			1786.919	ng/kg
Total PeCDD			154.674	ng/kg
Total PeCDF			1665.598	ng/kg
Total TCDD			160.412	ng/kg

**Notes:**

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

LOU 43 Table 4  
Soil Characterization Data - Metals  
Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program Boring No. Sample ID Sample Depth (ft) Sample Date	Ph A'	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Units
	SA6 SA6-0.5 SA6-0.5	SA6 SA6-0.5D SA6-0.5	SA6 SA6-10 SA6-20	SA6 SA6-20 SA6-30	SA6 SA6-30 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35	SA6 SA6-35 SA6-35
Aluminum	6160	6710	6440	6220	5800	12500	6400	5850	7100	6450	6390	7400	6390	7400	6390	7400	6390	7400	mg/kg
Antimony	0.15 J-	0.15 J-	0.16 J-	0.18 J-	0.16 J-	0.27 J-	0.36 J-	0.17 J-	0.13 J-	0.15 J-	0.15 J-	0.32 J-	0.15 J-	0.32 J-	0.15 J-	0.32 J-	0.15 J-	0.32 J-	mg/kg
Arsenic	2.4	3.1	3.1	4.0	4.2	24.4	5.5	2.5	2.3	3.3	4.8	24.3	4.8	24.3	4.8	24.3	4.8	24.3	mg/kg
Barium	163 J+	149 J+	162 J+	186 J+	143 J+	40.1 J+	201 J+	147	166	149 J	73.6 J	158 J	73.6 J	158 J	73.6 J	158 J	73.6 J	158 J	mg/kg
Beryllium	0.40	0.44	0.50	0.46	0.43	0.70	0.41	0.42	0.47	0.46	0.44 J-	0.35 J-	0.44 J-	0.35 J-	0.44 J-	0.35 J-	0.44 J-	0.35 J-	mg/kg
Boron	5.2 UJ	5.3 UJ	5.6 UJ	6.0 UJ	5.8 UJ	20.8 UJ	48.6 J-	8.7 UJ	8.2 UJ	9.3 UJ	12.3 UJ	36.8 J-	12.3 UJ	36.8 J-	12.3 UJ	36.8 J-	12.3 UJ	36.8 J-	mg/kg
Cadmium	0.089	0.10	0.083	0.083	0.090	0.12	0.24	0.075	0.084	0.068	0.065	0.084	0.065	0.084	0.065	0.084	0.065	0.084	mg/kg
Calcium	24600	19400	29300	33600	25500	32500	37500	26400	20500	25200	29000	62700 J+	29000	62700 J+	29000	62700 J+	29000	62700 J+	mg/kg
Chromium (Total)	8.5	12.8	10.6	10.1	7.7	27.4	18.5 J-	8.2 J-	7.9 J-	8.6 J-	7.4 J-	33.8 J-	8.6 J-	33.8 J-	8.6 J-	33.8 J-	8.6 J-	33.8 J-	mg/kg
Chromium-hexavalent	0.22	0.13 J	0.22 U	0.22 U	0.21 J	0.21 J	0.56	0.21 U	0.22 U	0.22 U	0.12 J	0.13 J	0.12 J	0.13 J	0.12 J	0.13 J	0.12 J	0.13 J	mg/kg
Cobalt	5.4 J-	5.9 J-	5.6 J-	6.4 J-	6.3 J-	5.2 J-	8.6 J-	6.0 J-	6.2 J-	5.8 J-	5.2 J-	3.1 J-	5.8 J-	3.1 J-	5.2 J-	3.1 J-	5.8 J-	3.1 J-	mg/kg
Copper	10.1 J-	12.4 J-	11.4 J-	12.0 J-	12.4 J-	12.0 J-	16.5 J-	10.4 J-	11.3 J-	12.0 J-	11.3 J-	9.5 J	12.0 J-	9.5 J	11.3 J-	11.3 J-	12.0 J-	9.5 J	mg/kg
Iron	9600	11600	11700	12000	11200	12600	9830	9600	9630	10300	9530	7520	10300	9530	10300	9530	10300	9530	mg/kg
Lead	7.1	11.5	7.6	8.1	7.4	8.3	32.5	7.4	7.8	6.7	6.0	4.4	6.7	6.0	6.7	6.0	6.7	6.0	mg/kg
Magnesium	6570 J-	7250 J-	6730 J-	8850 J-	6880 J-	28300 J-	8360 J-	5750	6310	8920 J-	8250 J-	19000 J-	8920 J-	8250 J-	8920 J-	8250 J-	19000 J-	8250 J-	mg/kg
Manganese	249 J	271 J	227 J	301 J	323 J	195 J	1290	278	262	250	159	171 J	250	159	250	159	171 J	159	mg/kg
Molybdenum	0.48 J	0.64	0.46 J	0.43 J	0.47 J	0.95	0.92	0.41 J	0.41 J	0.40 J	0.38 J	0.52 J	0.40 J	0.38 J	0.40 J	0.38 J	0.40 J	0.38 J	mg/kg
Nickel	12.8 J-	12.6 J-	12.1 J-	11.9 J-	12.2 J-	12.5 J-	12.9 J-	11.4 J-	12.1 J-	11.8 J-	11.6 J-	9.8 J-	11.8 J-	9.8 J-	11.6 J-	11.6 J-	9.8 J-	9.8 J-	mg/kg
Platinum	0.012 J	0.018 J	0.018 J	0.016 J	0.015 J	0.022 J	0.077 J	0.014 J	0.016 J	0.014 J	0.012 J	0.014 J	0.014 J	0.012 J	0.014 J	0.012 J	0.014 J	0.012 J	mg/kg
Potassium	2100 J-	2200 J-	2030 J-	1220 J-	1050 J-	3180 J-	1910	1790	2110	1280	1340	2080 J-	1280	1340	1280	1340	1280	1340	mg/kg
Selenium	0.12 UJ	0.13 UJ	0.12 UJ	0.12 UJ	0.11 UJ	0.16 UJ	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U	0.14 UJ	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	mg/kg
Silver	0.10 J	0.13 J	0.13 J	0.12 J	0.12 J	0.17 J	0.16 J	0.11 J	0.13 J	0.12 J	0.11 J	0.12 J	0.12 J	0.11 J	0.12 J	0.11 J	0.12 J	0.11 J	mg/kg
Sodium	626 J-	560 J-	581 J-	443 J-	699 J-	577 J-	763	314 J-	361 J-	392 J-	638 J-	533 J-	392 J-	638 J-	392 J-	638 J-	533 J-	638 J-	mg/kg
Strontium	126 J+	101 J+	188 J+	207 J+	299 J+	159 J+	130 J+	133 J-	130 J-	171 J	219 J	2280 J	171 J	219 J	171 J	219 J	2280 J	219 J	mg/kg
Thallium	0.080 U	0.081 U	0.095 U	0.082 U	0.082 U	0.22 U	0.38 U	0.21 U	0.20 U	0.12 U	0.10 U	0.32 U	0.12 U	0.10 U	0.12 U	0.10 U	0.32 U	0.10 U	mg/kg
Tin	0.40	0.55	0.48	0.46	0.47	0.64	0.92	0.43	0.52	0.43	0.42	0.39	0.43	0.42	0.43	0.42	0.39	0.42	mg/kg
Titanium	361 J	616 J	549 J	463 J	507 J	530 J	364 J+	379 J+	382 J+	454 J+	368 J+	444	454 J+	368 J+	454 J+	368 J+	444	368 J+	mg/kg
Tungsten	0.28 UJ	0.30 UJ	0.23 UJ	0.42 UJ	0.39 UJ	0.55 UJ	1.4 J-	0.41 J-	0.32 J-	0.33 J-	0.30 J-	0.87 J-	0.33 J-	0.30 J-	0.33 J-	0.30 J-	0.87 J-	0.30 J-	mg/kg
Uranium	0.80	1.0	1.0	2.1	1.8	3.7	0.96	0.86	0.87	1.6	2.1	4.3	1.6	2.1	1.6	2.1	4.3	2.1	mg/kg
Vanadium	21.8 J-	30.5 J-	33.8 J-	35.2 J-	34.8 J-	32.7 J-	24.1	23.7	23.5	22.3 J-	24.9 J-	30.1 J-	22.3 J-	24.9 J-	22.3 J-	24.9 J-	30.1 J-	24.9 J-	mg/kg
Zinc	24.1 J-	29.6 J-	24.8 J-	23.9 J-	24.9 J-	36.1 J-	39.1 J-	21.7 J-	23.0 J-	29.8 J-	21.9 J-	20.3 J-	29.8 J-	21.9 J-	29.8 J-	21.9 J-	20.3 J-	21.9 J-	mg/kg
Mercury	0.0071 UJ	0.011 J-	0.0072 UJ	0.0072 UJ	0.007 UJ	0.0039 UJ	0.0071 UJ	0.0074 J-	0.024 J-	0.0072 UJ	0.0071 UJ	0.0087 UJ	0.0072 UJ	0.0071 UJ	0.0072 UJ	0.0071 UJ	0.0087 UJ	0.0071 UJ	mg/kg

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

**LOU 43 Table 5**  
**Groundwater Characterization Data - Metals**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	
Well ID:	M11	M12A	
Sample ID	M11-Z	M12A-Z	
Sample Depth (ft)			
Sample Date	05/11/2007	05/11/2007	
<b>Metals</b>			<b>Unit</b>
Aluminum	393 U	786 U	ug/L
Antimony	25.0 U	50.0 U	ug/L
Arsenic	<b>328</b>	<b>700</b>	ug/L
Barium	15.2 U	24.7 U	ug/L
Beryllium	4.4 U	8.8 U	ug/L
Boron	<b>10400</b>	3340 U	ug/L
Cadmium	2.9 U	5.7 U	ug/L
Calcium	<b>50200</b>	<b>50100</b>	ug/L
Chromium (Total)	<b>3130</b>	<b>12800</b>	ug/L
Chromium-hexavalent	<b>2510 J</b>	<b>14000</b>	ug/L
Cobalt	15.7 U	31.3 U	ug/L
Copper	12.5 U	25.0 U	ug/L
Iron	<b>6310 J-</b>	940 UJ	ug/L
Lead	24.6 U	49.2 U	ug/L
Magnesium	<b>39300</b>	<b>19000</b>	ug/L
Manganese	173 U	140 U	ug/L
Molybdenum	25.0 U	<b>51.1 J</b>	ug/L
Nickel	25.8 U	51.7 U	ug/L
Platinum	5.0 U	10.0 U	ug/L
Potassium	<b>19900</b>	<b>44400</b>	ug/L
Selenium	50.0 U	100 U	ug/L
Silver	10.1 U	20.3 U	ug/L
Sodium	<b>953000</b>	<b>2330000</b>	ug/L
Strontium	<b>1300</b>	<b>1620</b>	ug/L
Thallium	16.0 U	32.0 U	ug/L
Tin	10.0 U	20.0 U	ug/L
Titanium	19.6 U	39.1 U	ug/L
Tungsten	25.0 U	50.0 U	ug/L
Uranium	<b>15.0 J</b>	<b>39.4 J</b>	ug/L
Vanadium	<b>121 J</b>	160 UJ	ug/L
Zinc	50.0 U	100 U	ug/L
Mercury	0.11 U	0.093 U	ug/L

**Notes:**

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

**LOU 43 Table 6**  
**Groundwater Characterization Data - Routine Monitoring**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Well ID	Date	Depth to water feet	Perchlorate mg/l	Qual	Total Chromium mg/l	Qual	TDS mg/l	Qual	Nitrate (as N) mg/l	Qual	Chlorate mg/l	Qual
M-11	2/2/2006	42.69	52	d	2.8	d	3660					
M-11	5/3/2006	43.29	43	d	2.7	d	2980		<0.1	ud	460	d
M-11	8/2/2006	43.50	31.4	d	2.8	d	2700		1.3	d	230	d
M-11	10/31/2006	43.51	33.4	d	2.7	d	3260		3.86	d	487	d
M-11	1/31/2007	43.50	30.6		3		3380					
M-11	5/2/2007	43.51	25.1		2.7		3180		3.01		434	
M-11	8/2/2007	43.82	33.9		2.6		3400					
M-12A	2/2/2006	---	360	d	13	d	10230					
M-12A	5/4/2006	---	340	d	12	d	8760		<0.1	ud	2600	d
M-12A	8/2/2006	---	312	d	12	d	5640		13	d	1260	d
M-12A	11/1/2006	---	288	d	12	d	7270		14.1	d	2540	d
M-12A	2/1/2007	---	291		12		7820					
M-12A	5/3/2007	---	283	J	12		7910	J	18.2	d	1980	d
M-12A	8/1/2007	---	320		13		7890					

**Explanation**

1. ENSR, 2007, Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, July – September 2007.

< = 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

u = the analyte was not detected above the sample reporting limit

ud = the sample was diluted and was not detected above the sample reporting limit

Validation Qualifiers:

J = the result is an estimated quantity

J- = the result is an estimated quantity and the result may be biased low

U = the analyte was analyzed for, but was not detected above the sample reporting limit

UU = the sample was not detected above the sample reporting limit and the reporting limit is approximate

**LOU 43 Table 7**  
**Soil Characterization Data - Organochlorine Pesticides (OCPs)**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	Ph A	
Boring No.	SA6	SA6	SA7	
Sample ID	SA6-0.5	SA6-0.5D	SA7-0.5	
Sample Depth (ft)	0.5	0.5	0.5	
Sample Date	11/14/2006	11/14/2006	11/20/2006	
Organochlorine Pesticides	mg/kg	mg/kg	mg/kg	Unit
4,4'-DDD	0.0018 U	0.0020 U	0.0018 U	mg/kg
4,4'-DDE	0.0018 U	0.0020 U	0.0018 U	mg/kg
4,4'-DDT	0.0018 U	0.0020 U	0.0018 U	mg/kg
Aldrin	0.0018 U	0.0020 U	0.0018 U	mg/kg
Alpha-BHC	0.0018 U	0.0020 U	0.0018 U	mg/kg
Alpha-chlordane	0.0018 U	0.0020 U	0.0018 U	mg/kg
Beta-BHC	0.0018 U	0.0020 U	0.0018 U	mg/kg
Delta-BHC	0.0018 U	0.0020 U	0.0018 U	mg/kg
Dieldrin	0.0018 U	0.0020 U	0.0018 U	mg/kg
Endosulfan I	0.0018 U	0.0020 U	0.0018 U	mg/kg
Endosulfan II	0.0018 U	0.0020 U	0.0018 U	mg/kg
Endosulfan Sulfate	0.0018 U	0.0020 U	0.0018 U	mg/kg
Endrin	0.0018 U	0.0020 U	0.0018 U	mg/kg
Endrin Aldehyde	0.0018 U	0.0020 U	0.0018 U	mg/kg
Endrin Ketone	0.0018 U	0.0020 U	0.0018 U	mg/kg
Gamma-BHC (Lindane)	0.0018 U	0.0020 U	0.0018 U	mg/kg
Gamma-Chlordane	0.0018 U	0.0020 U	0.0018 U	mg/kg
Heptachlor	0.0018 U	R	0.0018 U	mg/kg
Heptachlor Epoxide	0.0018 U	0.0020 U	0.0018 U	mg/kg
Methoxychlor	0.0035 UJ	0.0038 UJ	0.0035 UJ	mg/kg
Tech-Chlordane	0.011 U	0.012 U	0.011 U	mg/kg
Toxaphene	0.053 U	0.058 U	0.053 U	mg/kg

**Notes:**

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



**LOU 43 Table 8**  
**Groundwater Characterization Data - Organochlorine Pesticides (OCPs)**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	
Well ID	M11	M12A	
Sample ID	M11	M12A	
Sample Date	12/06/2006	12/05/2006	
<b>Organochlorine Pesticides</b>	ug/L	ug/L	<b>Unit</b>
4,4'-DDD	0.050 U	0.050 U	ug/L
4,4'-DDE	0.050 U	0.050 U	ug/L
4,4'-DDT	0.050 U	0.050 U	ug/L
Aldrin	0.050 U	0.050 U	ug/L
Alpha-BHC	0.050 U	0.050 U	ug/L
Alpha-chlordane	0.050 U	0.050 U	ug/L
Beta-BHC	0.050 U	0.050 U	ug/L
Delta-BHC	0.050 U	0.050 U	ug/L
Dieldrin	0.050 U	0.050 U	ug/L
Endosulfan I	0.050 U	0.050 U	ug/L
Endosulfan II	0.050 U	0.050 U	ug/L
Endosulfan Sulfate	0.050 U	0.050 U	ug/L
Endrin	0.050 U	0.050 U	ug/L
Endrin Aldehyde	0.050 U	0.050 U	ug/L
Endrin Ketone	0.050 U	0.050 U	ug/L
Gamma-BHC (Lindane)	0.050 U	0.050 U	ug/L
Gamma-Chlordane	0.050 U	0.050 U	ug/L
Heptachlor	0.050 U	0.050 U	ug/L
Heptachlor Epoxide	0.050 U	0.050 U	ug/L
Methoxychlor	0.10 U	0.10 U	ug/L
Tech-Chlordane	0.50 U	0.50 U	ug/L
Toxaphene	2.0 U	2.0 U	ug/L

**Notes:**

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

**LOU 43 Table 9**  
**Soil Characterization Data - Organophosphorus Pesticides (OPPs)**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	Ph A
Boring No.	SA6	SA6	SA7
Sample ID	SA6-0.5	SA6-0.5D	SA7-0.5
Sample Depth (ft)	0.5	0.5	0.5
Sample Date	11/14/2006	11/14/2006	11/20/2006
OPPs	mg/kg	mg/kg	mg/kg
Azinphos-methyl	0.014 UJ	0.015 UJ	0.014 U
Bolstar	0.014 U	0.015 U	0.014 U
Chlorpyrifos	0.021 U	0.023 U	0.021 U
Coumaphos	0.014 UJ	0.015 UJ	0.014 UJ
Demeton-O	0.041 U	0.045 U	0.041 U
Demeton-S	0.016 U	0.017 U	0.016 U
Diazinon	0.023 U	0.026 U	0.023 U
Dichlorvos	0.024 U	0.027 U	0.024 U
Dimethoate	<b>0.011 J</b>	<b>0.012 J</b>	0.023 U
Disulfoton	0.051 U	0.056 U	0.051 U
EPN	0.014 UJ	0.015 U	0.014 U
Ethoprop	0.016 U	0.017 U	0.016 U
Ethyl Parathion	0.019 U	0.021 U	0.019 U
Famphur	0.014 UJ	0.015 UJ	0.014 U
Fensulfothion	0.014 U	0.015 U	0.014 U
Fenthion	0.035 U	0.038 U	0.035 U
Malathion	0.016 U	0.017 U	0.016 U
Merphos	0.032 U	0.035 U	0.032 U
Methyl parathion	0.021 U	0.023 U	0.021 U
Mevinphos	0.016 U	0.017 U	0.016 U
Naled	0.035 UJ	0.038 UJ	0.035 UJ
Phorate	0.021 U	0.023 U	0.021 U
Ronnel	0.019 UJ	0.021 U	0.019 U
Stirphos	0.016 UJ	0.017 UJ	0.016 U
Sulfotep	0.021 U	0.023 U	0.021 U
Thionazin	0.019 U	0.021 U	0.019 U
Tokuthion	0.021 U	0.023 U	0.021 UJ
Trichloronate	0.021 U	0.023 U	0.021 U

**Notes:**

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

**LOU 43 Table 10**  
**Groundwater Characterization Data - Organophosphorus**  
**Pesticides (OPPs)**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A
Well ID	M11	M12A
Sample ID	M11	M12A
Sample Date	12/06/2006	12/05/2006
<b>OPPs</b>	ug/L	ug/L
Azinphos-methyl	2.5 U	2.5 U
Bolstar	1.0 U	1.0 U
Chlorpyrifos	1.0 U	1.0 U
Coumaphos	1.0 U	1.0 U
Demeton-O	1.0 U	1.0 U
Demeton-S	1.0 U	1.0 UJ
Diazinon	1.0 U	1.0 U
Dichlorvos	1.0 U	1.0 U
Dimethoate	1.0 U	1.0 U
Disulfoton	0.50 U	0.50 U
EPN	1.2 U	1.2 U
Ethoprop	0.50 U	0.50 U
Ethyl Parathion	1.0 U	1.0 U
Famphur	1.0 U	1.0 U
Fensulfothion	2.5 U	2.5 U
Fenthion	2.5 U	2.5 U
Malathion	1.2 U	1.2 U
Merphos	5.0 U	5.0 U
Methyl parathion	4.0 U	4.0 U
Mevinphos	6.2 U	6.2 U
Naled	1.0 U	1.0 UJ
Phorate	1.2 U	1.2 UJ
Ronnel	10 U	10 U
Stirphos	3.5 U	3.5 U
Sulfotep	1.5 U	1.5 U
Thionazin	1.0 U	1.0 U
Tokuthion	1.6 U	1.6 U
Trichloronate	0.50 U	0.50 U

**Notes:**

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

**LOU 43 Table 11**  
**Soil Characterization Data - PCBs**  
 Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	
Boring ID	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	SA6	
Sample ID	SA6-0.5	SA6-0.5D	SA6-10	SA6-20	SA6-30	SA6-35	SA6-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34				
Sample Depth (ft)	0.5	0.5	10	20	30	35	0.5	10	10	20	30	34				
Sample Date	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	
<b>PCBs</b>																
Atroclor-1016	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				
Atroclor-1221	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				
Atroclor-1232	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				
Atroclor-1242	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				
Atroclor-1248	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				
Atroclor-1254	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				
Atroclor-1260	0.035 U	0.038 U	0.036 U	0.036 U	0.035 U	0.049 U	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U				

**Notes:**

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

**LOU 43 Table 12**  
**Groundwater Characterization Data - PCBs**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A	
Well ID	M11	M12A	
Sample ID	M11	M12A	
Sample Date	12/06/2006	12/05/2006	
<b>PCBs</b>			<b>Unit</b>
Aroclor-1016	0.10 U	0.10 U	ug/L
Aroclor-1221	0.10 U	0.10 U	ug/L
Aroclor-1232	0.10 U	0.10 U	ug/L
Aroclor-1242	0.10 U	0.10 U	ug/L
Aroclor-1248	0.10 U	0.10 U	ug/L
Aroclor-1254	0.10 U	0.10 U	ug/L
Aroclor-1260	0.10 U	0.10 U	ug/L

**Notes:**

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

**LOU 43 Table 13**  
**Soil Characterization Data - Perchlorate**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Boring ID	Sample ID	Sample Depth (ft)	Sample Date	Perchlorate ug/kg	Sampling Program
SA6	SA6-0.5	0.5	11/14/2006	239	Ph A <sup>1</sup>
	SA6-0.5D	0.5	11/14/2006	426	Ph A
	SA6-10	10	11/14/2006	2320	Ph A
	SA6-20	20	11/14/2006	3020	Ph A
	SA6-30	30	11/14/2006	5340	Ph A
	SA6-35	35	11/14/2006	54100	Ph A
SA7	SA7-0.5	0.5	11/20/2006	34300 J	Ph A
	SA7-10	10	11/20/2006	109000 J	Ph A
	SA7-10D	10	11/20/2006	113000 J	Ph A
	SA7-20	20	11/20/2006	12800 J	Ph A
	SA7-30	30	11/20/2006	8690 J	Ph A
	SA7-34	34	11/20/2006	31700 J	Ph A

**Notes:**

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

**LOU 43 Table 14**  
**Groundwater Characterization Data - Perchlorate**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

<b>Well ID Number</b>	<b>Sample ID</b>	<b>Sample Date</b>	<b>Perchlorate</b>	<b>Units</b>	<b>Sampling Program</b>
M11	M11	12/06/2006	32500 J+	ug/L	Ph A
M11D	M11D	12/06/2006	32400 J+	ug/L	Ph A
M12A	M12A	12/05/2006	323000 J+	ug/L	Ph A

**Notes:**

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

LOU 43 Table 15  
Soil Characterization Data - Radionuclides

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Boring ID Number	Sample ID	Sample Depth (ft)	Date	Ra-226 (gamma) pci/g	Ra-228 (gamma) pci/g	Th-228 (TH MOD) pci/g	Th-230 (TH MOD) pci/g	Th-232 (TH MOD) pci/g	U-233/234 (U MOD) pci/g	U-235/236 (U MOD) pci/g	U-238 (U MOD) pci/g	Sampling Program
SA-6	SAG-0.5	0.5	11/14/2006	1.18 J	1.87							Ph A
	SAG-0.5D	0.5	11/14/2006	1.32 J	1.89							Ph A
	SAG-10	10	11/14/2006	1.07 J	1.8	0.601 J	0.619 JB	0.668 J	0.787	0.0165 J	0.483 J	Ph A
	SAG-20	20	11/14/2006	1.21 J	1.63							Ph A
	SAG-30	30	11/14/2006	1.49 J	1.94							Ph A
SA-7	SAG-35	35	11/14/2006	2.1	1.1 U							Ph A
	SAT-0.5	0.5	11/20/2006	1.12 J-	1.83 J-							Ph A
	SAT-10	10	11/20/2006	1.02 J-	1.9 J-							Ph A
	SAT-10D	10	11/20/2006	0.939 J-	1.77 J-							Ph A
	SAT-20	20	11/20/2006	1.28 J-	1.57 J-	0.488 J	0.775 J	0.618 J	0.652 J+	0.0145 U	0.493 J	Ph A
	SAT-30	30	11/20/2006	1.79 J-	1.78 J-							Ph A
	SAT-34	34	11/20/2006	7.49 J-	0.805 J-							Ph A

Notes:

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



**LOU 43 Table 16**  
**Groundwater Characterization Data - Radionuclides**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

Well ID	Sample ID	Date	Ra-226 pci/L	Ra-228 pci/L	Th-228 pci/L	Th-230 pci/L	Th-232 pci/L	U-233/234 pci/L	U-235/236 pci/L	U-238 pci/L	Sampling Program
M11	M11-Z	05/11/2007	0.332 U	1.23 B							Ph A <sup>1</sup>
M12A	M12A-Z	05/11/2007	0.601 J	1.45							Ph A

**Notes:**

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



LOU 43 Table 17 (continued)  
Soil Characterization Data - SVOC

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program/ Boring No.	Ph A SA6	Ph A SA6-0.5D	Ph A SA6-10	Ph A SA6-20	Ph A SA6-30	Ph A SA6-35	Ph A SA7-0.5	Ph A SA7-10	Ph A SA7-10D	Ph A SA7-20	Ph A SA7-30	Ph A SA7-34
Sample ID	SA6-0.5	SA6-0.5D	SA6-10	SA6-20	SA6-30	SA6-35	SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34
Sample Depth (ft)	0.5	0.5	10	20	30	35	0.5	10	10	20	30	34
Sample Date	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
Method	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical	Analytical
SVOC	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Octachlorostyrene	350 U	380 U	360 U	360 U	350 U	490 U	350 U	360 U	360 U	360 U	350 U	430 U
Phenanthrene	350 U	380 U	360 U	360 U	350 U	490 U	350 U	360 U	360 U	360 U	350 U	430 U
Pyrene	7.0 U	7.7 U	360 U	360 U	350 U	490 U	7.0 U	350 U	360 U	360 U	350 U	430 U
Pyridine	7.0 U	7.7 U	360 U	360 U	350 U	490 U	7.0 U	350 U	360 U	360 U	350 U	430 U
	1700 U	1900 U	1700 U	1700 U	1700 U	2400 U	1700 U	1700 U	1700 U	1700 U	1700 U	2100 U

Notes:

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

**LOU 43 Table 18**  
**Groundwater Characterization Data - SVOCs**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program		Ph A <sup>1</sup>	Ph A
Well No.		M11	M12A
Sample ID	Analytic	M11	M12A
Sample Date	Method	12/06/2006	12/05/2006
<b>SVOCs</b>		ug/L	ug/L
1,4-Dioxane	non-SIM	10 U	10 U
2-Methylnaphthalene	non-SIM	10 U	10 U
2-Methylnaphthalene	SIM		
Acenaphthene	non-SIM	10 U	10 U
Acenaphthene	SIM		
Acenaphthylene	non-SIM	10 U	10 U
Acenaphthylene	SIM		
Anthracene	non-SIM	10 U	10 U
Anthracene	SIM		
Benz(a)anthracene	non-SIM	10 U	10 U
Benz(a)anthracene	SIM		
Benzo(a)pyrene	non-SIM	10 U	10 U
Benzo(a)pyrene	SIM		
Benzo(b)fluoranthene	non-SIM	10 U	10 U
Benzo(b)fluoranthene	SIM		
Benzo(g,h,i)perylene	non-SIM	10 U	10 U
Benzo(g,h,i)perylene	SIM		
Benzo(k)fluoranthene	non-SIM	10 U	10 U
Benzo(k)fluoranthene	SIM		
bis(2-Ethylhexyl)phthalate	non-SIM	10 U	10 U
Butyl benzyl phthalate	non-SIM	10 U	10 U
Chrysene	non-SIM	10 U	10 U
Chrysene	SIM		
Dibenz(a,h)anthracene	non-SIM	10 U	10 U
Dibenz(a,h)anthracene	SIM		
Diethyl phthalate	non-SIM	10 U	10 U
Dimethyl phthalate	non-SIM	10 U	10 U
Di-N-Butyl phthalate	non-SIM	10 U	10 U
Di-N-Octyl phthalate	non-SIM	10 U	10 U
Fluoranthene	non-SIM	10 U	10 U
Fluoranthene	SIM		
Fluorene	non-SIM	10 U	10 U
Fluorene	SIM		
Hexachlorobenzene	non-SIM	10 U	10 U
Hexachlorobenzene	SIM		
Indeno(1,2,3-cd)pyrene	non-SIM	10 UJ	10 U
Indeno(1,2,3-cd)pyrene	SIM		
Naphthalene	non-SIM	5.0 U	5.0 U
Naphthalene	non-SIM	10 UJ	10 U
Naphthalene	SIM		
Nitrobenzene	non-SIM	10 U	10 U
Octachlorostyrene	non-SIM	10 U	10 U
Phenanthrene	non-SIM	10 U	10 U
Phenanthrene	SIM		
Pyrene	non-SIM	10 U	10 U
Pyrene	SIM		
Pyridine	non-SIM	20 U	20 U

**Notes:**

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

LOU 43 Table 19  
Soil Characterization Data - TPH and Fuel Alcohols

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Boring No.	Sample ID.	Sample Depth (ft)	Sample Date	Fuel Alcohols			Total Petroleum Hydrocarbons			Sampling Program
				Ethanol	Ethylene glycol	Methanol	TPH - ORO	TPH - DRO	TPH - GRO	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
SA6	SA6-0.5	0.5	11/14/2006	53 UJ	69 UJ	53 UJ	27 U	27 U	0.11 U	Ph A <sup>1</sup>
	SA6-0.5D	0.5	11/14/2006	58 UJ	75 UJ	58 UJ	29 U	29 U	0.12 U	Ph A
	SA6-10	10	11/14/2006	54 UJ	108 UJ	54 UJ	27 U	27 U	0.11 U	Ph A
	SA6-20	20	11/14/2006	54 UJ	85 UJ	54 UJ	27 U	27 U	0.11 U	Ph A
	SA6-30	30	11/14/2006	53 UJ	98 UJ	53 UJ	26 U	26 U	0.11 U	Ph A
	SA6-35	35	11/14/2006	74 UJ	112 UJ	74 UJ	37 U	37 U	0.15 U	Ph A
SA7	SA7-0.5	0.5	11/20/2006				26	26 UJ	0.11 UJ	Ph A
	SA7-10	10	11/20/2006				26 U	26 U	0.11 UJ	Ph A
	SA7-10D	10	11/20/2006				27 U	27 U	0.11 UJ	Ph A
	SA7-20	20	11/20/2006				27 U	27 U	0.11 UJ	Ph A
	SA7-30	30	11/20/2006				27 U	27 U	0.11 UJ	Ph A
	SA7-34	34	11/20/2006				33 U	33 U	0.13 UJ	Ph A

Notes:

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

LOU 43 Table 20  
Soil Characterization Data - VOCs

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program Boring No. Sample ID	Ph A <sup>1</sup> SA6	Ph A SA6	Ph A SA6-10	Ph A SA6-20	Ph A SA6-30	Ph A SA6-35	Ph A SA7	Ph A SA7-10	Ph A SA7-10D	Ph A SA7-20	Ph A SA7	Ph A SA7-30	Ph A SA7
VOCs	0.5	0.5	10	20	30	35	0.5	10	10	20	30	30	34
11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
Naphthalene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1,1,2-Tetrachloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1,1-Trichloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1,1,2-Tetrachloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1,2-Trichloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1-Dichloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1-Dichloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,1-Dichloropropene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2,3-Trichlorobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2,3-Trichloropropane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2,4-Trichlorobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2,4-Trimethylbenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2-Dibromo-3-chloropropane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2-Dichlorobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2-Dichloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,2-Dichloropropane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,3,5-Trimethylbenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,3-Dichlorobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,3-Dichloropropane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
1,4-Dichlorobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
2,2-Dichloropropane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
2-Butanone	11 U	12 U	11 U	11 U	11 U	15 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
2-Chlorotoluene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
2-Hexanone	11 U	12 U	11 U	11 U	11 U	15 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
2-Methoxy-2-methyl-butane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
4-Chlorotoluene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
4-Isopropyltoluene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
4-Methyl-2-pentanone	11 U	12 U	11 U	11 U	11 U	15 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Acetone	11 U	12 U	11 U	11 U	11 U	15 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Benzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Bromobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Bromochloromethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Bromodichloromethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Bromoform	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Bromomethane	11 U	12 U	11 U	11 U	11 U	15 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Carbon tetrachloride	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Chlorobenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Chloroethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U
Chloroform	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	5.3 U	6.5 U

LOU 43 Table 20 (continued)  
Soil Characterization Data - VOCs

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program Boring No.	Ph A SA6	Ph A SA6	Ph A SA6-10	Ph A SA6-20	Ph A SA6-30	Ph A SA6-35	Ph A SA7	Ph A SA7-0.5	Ph A SA7-10	Ph A SA7-10D	Ph A SA7	Ph A SA7	Ph A SA7-34
VOCs	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/14/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
Chloromethane	5.3 UJ	5.8 UJ	5.4 UJ	5.4 UJ	5.3 UJ	7.4 UJ	5.3 UJ	5.3 UJ	5.3 UJ	5.4 UJ	5.3 UJ	5.3 UJ	6.5 UJ
cis-1,2-Dichloroethene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 UJ
cis-1,3-Dichloropropene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Dibromochloromethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Dibromomethane	5.3 UJ	5.8 UJ	5.4 UJ	5.4 UJ	5.3 UJ	7.4 UJ	5.3 UJ	5.3 UJ	5.3 UJ	5.4 UJ	5.3 UJ	5.3 UJ	6.5 UJ
Dichlorodifluoromethane	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 UJ
Ethyl t-butyl ether	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Ethylbenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Ethylene dibromide	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Hexachlorobutadiene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Isopropyl ether	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Isopropylbenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Methyl tert butyl ether	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Methylene chloride	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
N-Butylbenzene	5.3 UJ	5.8 UJ	5.4 UJ	5.4 UJ	5.3 UJ	7.4 UJ	5.3 UJ	5.3 UJ	5.3 UJ	5.4 UJ	5.3 UJ	5.3 UJ	6.5 U
N-Propylbenzene	5.3 UJ	5.8 UJ	5.4 UJ	5.4 UJ	5.3 UJ	7.4 UJ	5.3 UJ	5.3 UJ	5.3 UJ	5.4 UJ	5.3 UJ	5.3 UJ	6.5 U
sec-Butylbenzene	5.3 UJ	5.8 UJ	5.4 UJ	5.4 UJ	5.3 UJ	7.4 UJ	5.3 UJ	5.3 UJ	5.3 UJ	5.4 UJ	5.3 UJ	5.3 UJ	6.5 U
Styrene	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
t-Butyl alcohol	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
tert-Butylbenzene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Tetrachloroethene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Toluene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
trans-1,2-Dichloroethylene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
trans-1,3-Dichloropropene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Trichloroethene	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 U
Trichlorofluoromethane	5.3 UJ	5.8 UJ	5.4 UJ	5.4 UJ	5.3 UJ	7.4 UJ	5.3 UJ	5.3 UJ	5.3 UJ	5.4 UJ	5.3 UJ	5.3 UJ	6.5 UJ
Vinylchloride	5.3 U	5.8 U	5.4 U	5.4 U	5.3 U	7.4 U	5.3 U	5.3 U	5.3 U	5.4 U	5.3 U	5.3 U	6.5 UJ
Xylene (Total)	11 U	12 U	11 U	11 U	11 U	15 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U

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

**LOU 43 Table 21**  
**Groundwater Characterization Data - VOCs**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program	Ph A <sup>1</sup>	Ph A
Well ID	M11	M12A
Sample ID	M11	M12A
Sample Date	12/06/2006	12/05/2006
VOCs	ug/L	ug/L
Naphthalene	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U
1,1-Dichloropropene	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U
1,2,3-Trichloropropane	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 UJ
1,2-Dichlorobenzene	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U
1,3-Dichloropropane	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U
2,2-Dichloropropane	5.0 U	5.0 U
2-Butanone	10 U	10 U
2-Chlorotoluene	5.0 U	5.0 U
2-Hexanone	10 UJ	10 U
2-Methoxy-2-methyl-butane	5.0 UJ	5.0 U
4-Chlorotoluene	5.0 U	5.0 U
4-Isopropyltoluene	5.0 U	5.0 U
4-Methyl-2-pentanone	10 UJ	10 UJ
Acetone	10 U	10 U
Benzene	5.0 U	5.0 U
Bromobenzene	5.0 U	5.0 U
Bromochloromethane	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U
Bromomethane	10 U	10 UJ
Carbon tetrachloride	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U
Chloroform	<b>130</b>	<b>1600 J+</b>
Chloromethane	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U
Dibromomethane	5.0 U	5.0 U



**LOU 43 Table 21 (continued)**  
**Groundwater Characterization Data - VOCs**

Tronox Facility - Henderson, Nevada  
Unit 4 & 5 Basements

Sampling Program	Ph A	Ph A
Well ID	M11	M12A
Sample ID	M11	M12A
Sample Date	12/06/2006	12/05/2006
<b>VOCs</b>	ug/L	ug/L
Dichlorodifluoromethane	5.0 UJ	5.0 U
Ethyl t-butyl ether	5.0 UJ	5.0 U
Ethylbenzene	5.0 U	5.0 U
Ethylene dibromide	5.0 U	5.0 U
Hexachlorobutadiene	5.0 U	5.0 U
isopropyl ether	5.0 UJ	5.0 U
Isopropylbenzene	5.0 U	5.0 U
Methyl tert butyl ether	5.0 U	5.0 U
Methylene chloride	5.0 UJ	5.0 U
N-Butylbenzene	5.0 U	5.0 U
N-Propylbenzene	5.0 U	5.0 U
sec-Butylbenzene	5.0 U	5.0 U
Styrene	5.0 U	5.0 U
t-Butyl alcohol	10 UJ	10 UJ
tert-Butylbenzene	5.0 U	5.0 U
Tetrachloroethene	5.0 U	<b>0.93 J</b>
Toluene	5.0 U	5.0 U
trans-1,2-Dichloroethylene	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U
Vinylchloride	5.0 U	5.0 U
Xylene (Total)	10 UJ	10 U

**Notes:**

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

**LOU 43 Table 22**  
**Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction**

Tronox Facility - Henderson, Nevada  
 Unit 4 & 5 Basements

			Long Amphibole Protocol Structures	Long Chrysotile Protocol Structures	Sampling Program
<b>No.</b>	<b>Sample ID</b>	<b>Sample Date</b>	s/gPM10	s/gPM10	
SA6	SA6	12/07/2006	2846000 U	2846000 U	Ph A <sup>1</sup>
SA7	SA7	12/07/2006	2988000 U	<b>2990000</b>	Ph A

**Notes:**

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

**Notes for Phase A Data Tables**  
Tronox Facility - Henderson, Nevada

Blank	Not analyzed.
<b>Blank</b>	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.
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.
UJ	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.