Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Name of Facility:

LOU 22 (Pond WC-West) and LOU 23 (Pond WC-East) Associated Piping in Area III

Goal of Closure:

- Continuation of current use – regulatory closure not presently requested.

Site Investigation Area:

Associated Piping in Area III

- Size: Approximately 3,000 linear feet in total. Approximately 1,400 linear feet of piping is contained within Area III.
- Location: In Area III, piping extends from the southeast corner of Pond WC-East along 11th Street to Unit 5 Building [Ref. 5]. Additional piping associated with the treatment area south of the ponds extends into the southeast corner of WC-West [Ref. 5].

Pond WC-West (in Area I)

- Size [Ref. 3]:
  - Approximately 440 feet by 280 feet (2.8-acres).
  - Surface area of 123,200 sq. ft. (2.8-acres).
  - Capacity of 12,515,200 gallons.
- Location: Approximately 40 feet east of GW-11 Pond.

Pond WC-East (in Area I)

- Size [Ref. 3]:
  - Approximately 450 feet by 285 feet (2.9-acres).
  - Surface area of 128,250 sq. ft. (2.9-acres).
  - Capacity of 19,658,500 gallons.
- Location: Approximately 500 feet east of GW-11 Pond.
- Current Status/Features: Ponds WC-West and WC-East, and the associated piping are currently active.

Description:

Associated Piping

- Waste water enters both WC-West and WC-East on the southeastern corner of via aboveground pipelines from Area I [Ref. 5].
- Historically, both ponds received composite liquid waste streams from Units 3, 5, and 6 and the steam plant via aboveground piping through Area III [Ref. 3].

Ponds WC-West and WC-East

- Constructed in late 1988, both surface impoundments began operating in March 1989, and are currently in use [Ref. 3].

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

- Currently (as of January 2008), both ponds regularly receive composite liquid waste streams from Units 6, the distillation plant, the steam plant, and the boron/boron trichloride production area (currently north of Unit 4) [Ref. 5].
- On occasion, process waste water from LOU 20 (Pond C-1) and the boron processes were pumped directly to Pond WC-West [Ref. 4].

Process Waste Streams Associated with LOUs 22 and 23	Known or Potential Constituents Associated with LOUs 22 and 23
Concentrated brine from the vapor recompression units that included [Ref. 3]: - Process water softeners - Steam generation blow down - Cooling tower blow down from Units 3 and 5 - Manganese dioxide product wash solution from Unit 6 - Manganese dioxide cathode wash solution - Process seal water/filter flush	• Metals (magnesium, manganese from cathode scale, manganese dioxide, boron) • Hexavalent chromium • Perchlorate • Chlorate • Wet chemistry analytes • Sodium hexametaphosphate
Process Waste Streams Associated with the Boron/Boron Trichloride Plant North of Unit 4 (Current Location) and Unit 5 (Former Location)	**Known or Potential Constituents Associated with the Boron/Boron Trichloride Plant North of Unit 4 (Current Location) and Unit 5 (Former Location)**
Neutralized solution from boron and boron trichloride process [Ref. 4].	• Metals (boron) • Wet chemistry analytes

Overlapping or Adjacent LOUs:

The following LOUs overlap or are adjacent to LOU 22 and 23:

Overlapping LOUs

- LOU 59 (Storm Sewer System) – Overlaps LOUs 22 and 23 associated piping in the central and southern portions of Area III.
- LOU 60 (Acid Drain System) – Overlaps and runs parallel to LOUs 22 and 23 associated piping in Area III.

Adjacent LOUs

- LOUs 24 (Leach Beds, Associated Conveyance Facilities, and Mn Tailings Area) and 46 (Former Old Main Cooling Tower and Recirculation Lines) – Located west (downgradient) of LOUs 22 and 23 associated pipelines.

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

- LOU 50 (Current and Historical Leach Plant Area Leach Tanks) – Located west (downgradient) of LOUs 22 and 23 associated pipelines.
- LOU 34W (Historic Manganese Tailings Area, West) – Located east (upgradient) of LOUs 22 and 23 associated pipelines.
- LOU 13 and 14 (Ponds S-1 and P-1 [Area II]) – Located east (upgradient) of LOUs 22 and 23 associated pipelines.
- LOU 61 (Unit 5 Basement and Old Sodium Chlorate Plant Decommissioning) – Located south (upgradient) of LOUs 22 and 23 associated pipelines.

Known or potential chemical classes are for the LOUs previously mentioned are not likely to affect the SRCs consistent with those listed for LOUs 22 and 23; therefore, no additional chemical classes have been added to the analytical plan for LOUs 22 and 23. For detailed information on LOUs listed above, please refer to the specific LOU data package.

LOUs Potentially Affecting Soils in LOUs 22 and 23:

- LOU 59 (Storm Sewer System): The Storm Sewer system crosses the pipelines associated with LOU 22 and 23 at one location. The pipelines associated with LOUs 22 and 23 may have been affected by possible leaks (none reported) associated with LOU 59.
- LOU 60 (Former Acid Drain System): Underground pipelines associated with LOU 60 ran parallel to the route of the LOU 22 and 23 associated pipelines The pipelines associated with LOUs 22 and 23 may have been affected by possible leaks (none reported) associated with LOU 60.

Known or potential chemical classes associated with LOU 20 are consistent with those listed for LOUs 22 and 23; therefore, no additional chemical classes have been added to the analytical plan for LOUs 22 and 23.

For further information please refer to the LOU data packages.

Known or Potential Chemical Classes:

- Metals
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- TPH

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Known or Potential Release Mechanisms:

- No known releases documented for these LOUs.
- Potential infiltration to subsurface soil and groundwater could have occurred from potential leaks in the pipelines; however, no leaks were identified in the documents reviewed.

Results of Historical Sampling:

- No historical soil boring locations were identified in the documents reviewed for the pipeline in Area III.
- Upgradient and downgradient monitoring wells (M-12A, M-34, M-31A, M-50, M-52, and M-11) are tested for total chromium, perchlorate, and total dissolved solids as part of periodic or routine groundwater monitoring program [Ref. 2].
- Analytical results are summarized in LOU 22 & 23 Table 6 (see attached).

Summary of Phase A SAI:

No soil or groundwater samples were specifically collected in the Phase A Source Area Investigation for LOUs 22 and 23 in Area III.

<u>Soil</u>

- The closest Phase A Investigation boring SA07 is located approximately 140 feet east (down and cross-gradient) of LOUs 22 and 23 associated pipeline in Area III [Ref. 1].

<u>Groundwater</u>

- The closest Phase A Investigation well M-31A is located approximately 40 feet to the east (downgradient) of LOUs 22 and 23 [Ref. 1].

Chemical classes detected in Phase A soil boring SA07:

- Metals
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- TPH-ORO
- Dioxins/furans
- Radionuclides
- Asbestos

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

As a result of the Phase A data, the Phase B analytical plan for samples collected from LOUs 22 and 23 associated pipeline in Area III will be expanded to include analyses for VOCs, dioxins/furans, radionuclides, and asbestos

Analytical results for soil and groundwater from the Phase A sampling event are summarized: LOU 22 & 23 Tables 1 through 5 and 7 through 23 (see attached) [Ref. 1].

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

- No

Is Phase B Investigation Recommended?

- Yes. Soil samples were not collected to evaluate LOUs 22 and 23 associated pipeline in Area III.

Proposed Phase B Soil Investigation/Rationale:

The Phase B investigation of LOUs 22 and 23 consists of collecting soil samples from five (5) boring locations along the pipeline in Area III leading from Unit 5 to LOUs 22 and 23.

- Soil sample locations consist of both judgmental and randomly-placed locations.
- Judgmental sample locations:
  - Are designed to evaluate soil for known or potential chemical classes associated with LOUs 22 and 23.
  - Three (3) of the 5 sample locations are judgmental locations and include soil borings SA36, SA157, and SA162.
- Random sample grid locations:
  - Are designed to assess whether unknown constituents associated with LOUs 22 and 23 piping in Area III are present.
  - Two (2) of the five sample locations are randomly-placed locations and include RSAP7 and RSAQ7.
  - All five borings along with the analytical program to evaluate soil samples from LOUs 22 and 23 associated piping are listed on **Table A – Soil Sampling and Analytical Plan for LOU 22 and LOU 23.**

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Proposed Phase B Constituents List for Soils:

Both Judgmental and Random sample locations will be analyzed for the following constituents:

- 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 LOUs 22 and 23 associated piping in Area III consists of collecting groundwater samples from five (5) locations to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
  - Four (4) monitoring wells (M-11, M-31A, M-34, and M-52) located east (downgradient) of the LOUs 22 and 23 associated piping will be sampled.
  - One (1) monitoring well (M-12A) located west (upgradient) of LOUs 22 and 23 associated piping will be sampled.
  - All five wells along with the analytical program to evaluate groundwater samples associated with LOUs 22 and 23 associated piping are listed on **Table B – Groundwater Sampling and Analytical Plan for LOUs 22 and 23.**

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

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Proposed Phase B Soil Gas Investigation/Rationale:

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

- One (1) soil gas sample location (SG84) is located adjacent to randomly-placed sample RSAP7 to evaluate for potential vapor-phase VOCs from groundwater and/or soil.

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, 2007a, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. ENSR, 2007b, Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, July-September 2007, November 2007.
3. Kleinfelder, 1993, Environmental Conditions Assessment, Kerr-McGee Chemical Corporation, Henderson, Nevada Facility, April 15, 1993 (Final).
4. Tronox, Susan Crowley, verbal communication, January 18, 2008.
5. Tronox, Susan Crowley, verbal communication, February 25, 2008.

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

LOU Figure

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N

1:2,400
1 inch equals 200 feet

200 100 0 200

Feet

PIPELINE ROUTE
TO LOU #22 & #23

LOU #19 BOUNDARY
LOU #20 BOUNDARY
POND C-1
LOU #16 BOUNDARY
LOU #18 BOUNDARY
LOU #17 BOUNDARY
LOU #53 BOUNDARY
LOU #21 BOUNDARY
POND Mn-1
AREA II
STEAM PLANT
LOU #13 BOUNDARY
LOU #9 BOUNDARY
LOU #14 BOUNDARY
LOU #7 BOUNDARY
LOU #8 BOUNDARY
LOU #24 BOUNDARY
LOU #46 BOUNDARY
LOU #45 BOUNDARY
LOU #34 BOUNDARY
LOU #50 BOUNDARY
AREA III
LOU #49 BOUNDARY
LOU #47 BOUNDARY
LOU #48 BOUNDARY
LOU #34E BOUNDARY
LOU #51 PIPELINE
FORMER U.S. VANADIUM SITE (AREA 70)
LOU #15 BOUNDARY
LOU #11 BOUNDARY
LOU #12 BOUNDARY
LOU #43 BOUNDARY
UNIT 4
UNIT 5
UNIT 6
LOU #61 BOUNDARY
LOU #33 BOUNDARY
LOU #37 BOUNDARY
LOU #44 BOUNDARY
9th STREET
10th STREET
11th STREET
8th STREET
AVENUE G
AVENUE H

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

FIGURE NUMBER: 1

SHEET NUMBER: X

SAMPLE LOCATIONS FOR LOU #22 & #23 ASSOCIATED PIPING IN AREA III

Phase B Area III Source Area Investigation
Tronox Facility
Henderson, Nevada

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

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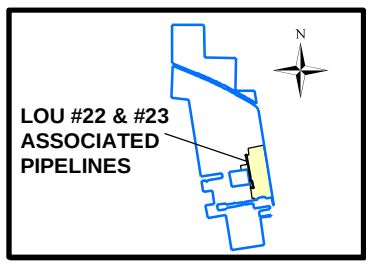

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Sampling and Analytical Plans for LOUs 22 and 23:

Table A – Soil Analytical Plan for LOUs 22 and 23
Table B – Groundwater Analytical Plan for LOUs 22 and 23

Table A
Soil Sampling and Analytical Plan for LOUs 22 and 23
Phase B Source Area Investigation Work Plan
Tronox Facility - Henderson, Nevada

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.]	PCBs[8.] (EPA 8082 and 1668A)	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 3 (N-7) and ending with the southeastern most grid in Area 3 (S-8).																				
N-7	20, 21, 22, 23	SA157	SA157-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping), LOU 21 (Pond Mn-1 and
N-7	20, 21, 22, 23		SA157-0.5	0.5	X	X	X			X	X		X	X	X	X				Associated Piping), LOU 22 (WC-West Associated Piping), and LOU 23 (WC-East Associated
N-7	20, 21, 22, 23		SA157-10	10	X	X	X			X	X		Hold	X	X						Piping). Located at piping junction from all LOUs at highest release potential location (manhole
N-7	20, 21, 22, 23		SA157-20	20	X	X	X			X	X		Hold	X	X						and junction).
N-7	20, 21, 22, 23		SA157-30	30	X	X	X			X	X		Hold	X	X						
N-7	20, 21, 22, 23		SA157-40	40	X	X	X			X	X		X	X	X						
P-7	60, 20, 22, 23	RSAP7	RSAP7-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping Associated Piping), LOU 21
P-7	60, 20, 22, 23		RSAP7-0.5	0.5	X	X	X	X		X	X	X	X	X	X	X				(Pond Mn-1 and Associated Piping), LOU 22 (WC-West Associated Piping), LOU 23 (WC-East
P-7	60, 20, 22, 23		RSAP7-10	10	X	X	X	X		X	X	X	Hold	X	X						Associated Piping), and LOU 60 (Acid Drain System). Random boring located within a cluster of
P-7	60, 20, 22, 23		RSAP7-20	20	X	X	X	X		X	X	X	Hold	X	X						five LOUs for area coverage of all five.
P-7	60, 20, 22, 23		RSAP7-30	30	X	X	X	X		X	X	X	Hold	X	X						
P-7	60, 20, 22, 23		RSAP7-40	40	X	X	X	X		X	X	X	X	X	X						
Q-7	20, 22, 23, 48, 50, 51, 60	RSAQ7	RSAQ7-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping), LOU 22 (WC-West Associated
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-0.5	0.5	X	X	X	X		X	X	X	X	X	X	X				Piping), LOU 23 (WC-East Associated Piping), LOU 48 (Leach Plant Anolyte Storage Tanks),
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-10	10	X	X	X	X		X	X	X	Hold	X	X						LOU 50 (Leach Plant Area Leach Tanks), and LOU 60 (Acid Drain System). Random boring
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-20	20	X	X	X	X		X	X	X	Hold	X	X						located within area piping for all five LOUs for likely release points.
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-30	30	X	X	X	X		X	X	X	Hold	X	X						
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-40	40	X	X	X	X		X	X	X	X	X	X						
Q-7	20, 22, 23, 61	SA36	SA36-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping), LOU 22 (WC-West Associated
Q-7	20, 22, 23, 61		SA36-0.5	0.5	X	X	X	X		X	X		X		X	X				Piping), LOU 23 (WC-East Associated Piping), and LOU 61 (Old Sodium Plant Decommissioning
Q-7	20, 22, 23, 61		SA36-10	10	X	X	X	X		X	X		Hold		X						and Unit-5 Basement). Located adjacent to piping for LOUs 20,22,and 23 for potiential release
Q-7	20, 22, 23, 61		SA36-20	20	X	X	X	X		X	X		Hold		X						points, and downgradient of LOU 61 for likely releases (accessible low area).
Q-7	20, 22, 23, 61		SA36-30	30	X	X	X	X		X	X		Hold		X						
Q-7	20, 22, 23, 61		SA36-40	40	X	X	X	X		X	X		X		X						
Number of Borings:		**4**																		
Number of Samples:					**20**	**20**	**20**	**15**	**0**	**20**	**20**	**10**	**8**	**15**	**20**	**4**	**0**	**4**	**0**	

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 - Sample locations will be analyzed by USEPA methods 8082 and 1668A. Concrete srufaces at these locations will also include chip and/or wipe samples per EPA Region 1 SOP for Sampling Concrete in the Field (1997)
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).

Table B
Groundwater Sampling and Analysis Plan for LOUs 22 and 23
Phase B Source Area Investigation Area III Work Plan
Tronox Facility - Henderson, Nevada

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)	Radio-nuclides[5.]	Rationale
Wells are organized by grid location as shown on Plate A - Starting point is on the northwestern-most grid in Area III (N-7) and ending with the southeastern-most grid covering Area III (Q-9).														
N-7	IIIW	M-34	25 - 40	Qal/MCfg1	no	X	X	X	X	X	X	X	X	Located to serve as a downgradient step out for LOU 46; as a cross-gradient step out for LOUs 20, 22, 23, and 60; and for general Site coverage.
P-7	III	M-31A	35 - 55	MCfg1	yes	X	X	X	X	X	X	X	X	Located to serve as a downgradient step out for LOU 59; as an upgradient step out for LOUs 24 and 46; as a crossgradient step out for LOUs 20, 22, and 23; and for general Site coverage.
P-7	III	M-52	34.5 - 44.5	MCfg1	no	X	X	X	X	X	X	X	X	Located to evaluate LOUs 34E, 47 through 51, and Area 70 (former U.S. Vanadium); as a crossgradient step out fo LOUs 20, 22, 23, and 60; and for general Site coverage.
Q-6	IIIN	M-12A	28-48	MCfg1	yes	X	X	X	X	X	X	X	X	Located to serve as a upgradient step out for LOUs 20, 22, and 23 and for general Site coverage.
Q-7	III	M-11	33.3 - 53	Qal/MCfg1	yes	X	X	X	X	X	X	X	X	Located as a downgradient step out for LOU 61; as an upgradient step out for LOUs 34E, 47 through 51 and Area 70 (former U.S. Vanadium); as a crossgradient step out for LOUs 20, 22, 23, and 60, and for general Site coverage.
				Number of Field Samples:		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	

Notes:

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).
(a)	Complete list of wet chemistry parameters are shown on Table 1. All groundwater samples will have pH measured in the field.
IIIN/E/W/S	Well located outside (north, east, west, or south) of Area III.
TBD	To be determined when well is constructed.
nr	Not recorded in the All Wells Database (June 2008).
Qal	Quaternary Alluvium
MCfg1	Muddy Creek Formation - first fine-grained facies
MCcg1	Muddy Creek Formation - first coarse-grained facies
MCfg2	Muddy Creek Formation - second fine-grained facies

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Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Soil and Groundwater Characterization Data

Summary of Available Data for LOU 22 and LOU 23 (Pond WC-West and WC-East) Associated Piping in Area III

Tronox Facility – Henderson, Nevada

LOU-specific analytes identified include:

- Wet chemistry analytes
- Dioxins/furans
- Metals
- Organochlorine pesticides
- Perchlorate
- Radionuclides
- SVOCs
- TPH
- VOCs
- Asbestos

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

LOU 22 and 23 Table 1 - Soil Characterization Data - Wet Chemistry
LOU 22 and 23 Table 2 - Groundwater Characterization Data - Wet Chemistry
LOU 22 and 23 Table 3 - Soil Characterization Data - Dioxins and Dibenzofurans
LOU 22 and 23 Table 4 - Soil Characterization Data - Metals
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LOUs 22 & 23 Associated Piping in Area III Table 1
Soil Characterization Data - Wet Chemistry

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A	
Boring No.		SA7	SA7	SA7	SA7	SA7	SA7	
Sample ID		SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34	
Sample Depth (ft)		0.5	10	10	20	30	34	
Sample Date		11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	
Wet Chemistry Parameter	**MSSL[2] mg/kg**							Units
Percent moisture	--	**5.3**	**5.6**	**7.1**	**7.6**	**6.3**	**23.3**	percent
Alkalinity (as CaCO3)	--	**68.9**	53.0 U	**70.2**	**174**	**158**	65.2 U	mg/kg
Bicarbonate	--	**178**	**212**	**193**	**131**	**340**	**290**	mg/kg
Total Alkalinity	--	**247**	**249**	**263**	**305**	**497**	**319**	mg/kg
Ammonia (as N)	--	5.3 UJ	5.3 UJ	5.4 UJ	5.4 UJ	5.3 UJ	6.5 UJ	mg/kg
Cyanide	1.37E+04	R	R	R	R	R	R	mg/kg
MBAS	--	4.2 U	4.4 U	4.4 U	4.4 U	4.4 U	5.0 U	mg/kg
pH (solid)	--	**8.2**	**7.9**	**8.0**	**8.3**	**8.5**	**7.6**	none
Bromide	--	**1.1 J**	**0.65 J**	2.7 U	2.7 U	2.7 U	32.6 U	mg/kg
Chlorate	--	**108 J+**	**138 J+**	**183 J+**	**201 J+**	**28.7 J+**	**66.2 J+**	mg/kg
Chloride	--	**127**	**160**	**177**	**208**	**46.7**	**95.6**	mg/kg
Nitrate (as N)	--	**8.9**	**7.0**	**5.3**	**6.1**	**0.71 J+**	**0.89 J+**	mg/kg
Nitrite	--	R	2.1 UJ	2.2 UJ	2.2 UJ	2.1 UJ	2.6 UJ	mg/kg
ortho-Phosphate	--	**7.2**	5.3 U	**10.6**	5.4 U	**2.8 J**	6.5 U	mg/kg
Sulfate	--	**449 J**	**805 J**	**120 J**	**145 J**	**67.5 J**	**5380 J**	mg/kg
Total Organic Carbon	--	**6780 J-**	**1950 J-**	**4480 J-**	**5000 J-**	**925 J-**	**11600 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).

LOUs 22 & 23 Associated Piping in Area III Table 2
Groundwater Characterization Data - Wet Chemistry

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	
Well ID		M11	
Sample ID		M11	
Sample Date		12/06/2006	
Wet Chemistry Parameters	**MCL[2] mg/L**		**Units**
Total Dissolved Solids	5.00E+02 j	**3270**	mg/L
Total Suspended Solids	--	**15.0 J**	mg/L
Alkalinity (as CaCO3)	--	5.0 U	mg/L
Bicarbonate	--	**205**	mg/L
Total Alkalinity	--	**205**	mg/L
Ammonia (as N)	--	50.0 U	ug/L
MBAS	--	**0.20**	mg/L
Cyanide	2.00E-01	R	ug/L
pH (liquid)	--	**7.7 J**	none
Specific Conductance	--	**2360 J+**	umhos/cm
Bromide	--	25.0 U	mg/L
Chlorate	--	**421**	mg/L
Chloride	2.50E+02	**239**	mg/L
Nitrate (as N)	1.00E+01	**3.4**	mg/L
Nitrite	1.00E+00	**3.1**	mg/L
ortho-Phosphate	--	5.0 U	mg/L
Sulfate	2.50E+02 j	**1290**	mg/L
Total Organic Carbon	--	50 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.

LOUs 22 & 23 Associated Piping in Area III Table 3
Soil Characterization Data - Dioxins and Dibenzofurans

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

			Sampling Program	Ph A[1]
			Boring No.	SA7
			Sample ID	SA7-0.5
			Sample Depth (ft)	0.5
			Sample Date	11/20/2006
chemical_name:	**Method**	**Unit**	**MSSL[2] ng/kg**	
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (a) ng/kg		ng/kg	--	**192**
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (a) ng/kg		ng/kg	--	**169**
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (b) ng/kg		ng/kg	--	**192**
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (b) ng/kg		ng/kg	--	**169**
1,2,3,4,6,7,8-Heptachlorodibenzofuran	8290 Screen	ng/kg	--	**927.107**
1,2,3,4,6,7,8-Heptachlorodibenzofuran	SW 846 8290	ng/kg	--	**873.925 J**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**85.450**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--	**85.45**
1,2,3,4,7,8,9-Heptachlorodibenzofuran	8290 Screen	ng/kg	--	**392.108**
1,2,3,4,7,8,9-Heptachlorodibenzofuran	SW 846 8290	ng/kg	--	**392.11**
1,2,3,4,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**372.915**
1,2,3,4,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--	**372.915**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**8.841**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--	**8.841**
1,2,3,6,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**249.626**
1,2,3,6,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--	**249.626**
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**19.448**
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--	**19.448**
1,2,3,7,8,9-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**31.354**
1,2,3,7,8,9-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--	**31.353**
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**21.698**
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--	**21.698**
1,2,3,7,8-Pentachlorodibenzofuran	8290 Screen	ng/kg	--	**199.693**
1,2,3,7,8-Pentachlorodibenzofuran	SW 846 8290	ng/kg	--	**199.692**
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**16.175**
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--	**16.175**
2,3,4,6,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**112.484**
2,3,4,6,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--	**112.484**
2,3,4,7,8-Pentachlorodibenzofuran	8290 Screen	ng/kg	--	**92.926**
2,3,4,7,8-Pentachlorodibenzofuran	SW 846 8290	ng/kg	--	**92.927**
2,3,7,8-Tetrachlorodibenzofuran	8290 Screen	ng/kg	--	**369.233**
2,3,7,8-Tetrachlorodibenzofuran	SW 846 8290	ng/kg	--	**136.994 J**

LOUs 22 & 23 Associated Piping in Area III Table 3(continued)
Soil Characterization Data - Dioxins and Dibenzofurans

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

				Sampling Program	Ph A[1]
				Boring No.	SA7
				Sample ID	SA7-0.5
				Sample Depth (ft)	0.5
				Sample Date	11/20/2006
chemical_name:	**Method**	**Unit**	**MSSL[2] ng/kg**		
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	1.00E+03	h,v	**8.965**
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	1.00E+03	h,v	**8.965**
Octachlorodibenzofuran	8290 Screen	ng/kg	--		**2502.073**
Octachlorodibenzofuran	SW 846 8290	ng/kg	--		**2338.457 J**
Octachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--		**191.912**
Octachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		**191.912**
Tetrachlorinated Dibenzofurans, (Total)	SW 846 8290	ng/kg	--		**1642.861 J**
Total HpCDD	SW 846 8290	ng/kg	--		**151.421**
Total HpCDF	SW 846 8290	ng/kg	--		**1846.885 J**
Total HxCDD	SW 846 8290	ng/kg	--		**158.189**
Total HxCDF	SW 846 8290	ng/kg	--		**1786.919**
Total PeCDD	SW 846 8290	ng/kg	--		**154.674**
Total PeCDF	SW 846 8290	ng/kg	--		**1665.598**
Total TCDD	SW 846 8290	ng/kg	--		**160.412**

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/].

LOUs 22 & 23 Associated Piping in Area III Table 4
Soil Characterization Data - Metals

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A	
Boring No.		SA7	SA7	SA7	SA7	SA7	SA7	
Sample ID		SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34	
Sample Depth (ft)		0.5	10	10	20	30	34	
Sample Date		11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	
Metals	**MSSL[2] mg/kg**							**Units**
Aluminum	1.00E+05	**6400**	**5850**	**7100**	**6450**	**6390**	**7400**	mg/kg
Antimony	4.50E+02	**0.36 J-**	**0.17 J-**	**0.13 J-**	**0.15 J-**	**0.15 J-**	**0.32 J-**	mg/kg
Arsenic	2.80E+02	**5.5**	**2.5**	**2.3**	**3.3**	**4.8**	**24.3**	mg/kg
Barium	1.00E+05	**201 J+**	**147**	**166**	**149 J**	**73.6 J**	**158 J**	mg/kg
Beryllium	2.20E+03	**0.41**	**0.42**	**0.47**	**0.46**	**0.44 J-**	**0.35 J-**	mg/kg
Boron	1.00E+05	**48.6 J-**	8.7 UJ	8.2 UJ	9.3 UJ	12.3 UJ	**36.8 J-**	mg/kg
Cadmium	5.60E+02	**0.24**	**0.075**	**0.084**	**0.068**	**0.065**	**0.084**	mg/kg
Calcium	--	**37500**	**26400**	**20500**	**25200**	**29000**	**62700 J+**	mg/kg
Chromium (Total)	7.10E+01	**18.5 J-**	**8.2 J-**	**7.9 J-**	**8.6 J-**	**7.4 J-**	**33.8 J-**	mg/kg
Chromium-hexavalent	5.00E+02	**0.56**	0.21 U	0.22 U	0.22 U	**0.12 J**	**0.13 J**	mg/kg
Cobalt	2.10E+03	**8.6 J-**	**6.0 J-**	**6.2 J-**	**5.8 J-**	**5.2 J-**	**3.1 J-**	mg/kg
Copper	4.20E+04	**16.5 J-**	**10.4 J-**	**11.3 J-**	**12.0 J-**	**11.3 J-**	**9.5 J**	mg/kg
Iron	1.00E+05	**9830**	**9600**	**9830**	**10300**	**9530**	**7520**	mg/kg
Lead	8.00E+02	**32.5**	**7.4**	**7.8**	**6.7**	**6.0**	**4.4**	mg/kg
Magnesium	--	**8360 J-**	**5750**	**6310**	**8920 J-**	**8250 J-**	**19000 J-**	mg/kg
Manganese	3.50E+04	**1290**	**278**	**262**	**250**	**159**	**171 J**	mg/kg
Molybdenum	5.70E+03	**0.92**	**0.41 J**	**0.41 J**	**0.40 J**	**0.38 J**	**0.52 J**	mg/kg
Nickel	2.30E+04	**12.9 J-**	**11.4 J-**	**12.1 J-**	**11.8 J-**	**11.6 J-**	**9.8 J-**	mg/kg
Platinum	--	**0.077 J**	**0.014 J**	**0.016 J**	**0.014 J**	**0.012 J**	**0.014 J**	mg/kg
Potassium	--	**1910**	**1790**	**2110**	**1280**	**1340**	**2080 J-**	mg/kg
Selenium	5.70E+03	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U	0.14 UJ	mg/kg
Silver	5.70E+03	**0.16 J**	**0.11 J**	**0.13 J**	**0.12 J**	**0.11 J**	**0.12 J**	mg/kg
Sodium	--	**763**	**314 J-**	**361 J-**	**392 J-**	**638 J-**	**533 J-**	mg/kg
Strontium	1.00E+05	**130 J+**	**133 J-**	**130 J-**	**171 J**	**219 J**	**2280 J**	mg/kg
Thallium	--	0.38 U	0.21 U	0.20 U	0.12 U	0.10 U	0.32 U	mg/kg
Tin	--	**0.92**	**0.43**	**0.52**	**0.43**	**0.42**	**0.39**	mg/kg
Titanium	--	**364 J+**	**379 J+**	**382 J+**	**454 J+**	**368 J+**	**444**	mg/kg
Tungsten	--	**1.4 J-**	**0.41 J-**	**0.32 J-**	**0.33 J-**	**0.30 J-**	**0.87 J-**	mg/kg
Uranium	--	**0.96**	**0.86**	**0.87**	**1.6**	**2.1**	**4.3**	mg/kg
Vanadium	5.70E+03	**24.1**	**23.7**	**23.5**	**29.8 J-**	**24.9 J-**	**30.1 J-**	mg/kg
Zinc	1.00E+05	**39.1 J-**	**21.7 J-**	**23.0 J-**	**22.3 J-**	**21.9 J-**	**20.3 J-**	mg/kg
Mercury	3.41E+02 (t)	0.0071 U	**0.0074 J-**	**0.024 J-**	0.0072 UJ	0.0071 UJ	0.0087 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.

LOUs 22 & 23 Associated Piping in Area III Table 5
Groundwater Characterization Data - Metals

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	
Well ID:		M11	
Sample ID		M11-Z	
Sample Depth (ft)			
Sample Date		05/11/2007	
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	**328**	ug/L
Barium	2.00E+03	15.2 U	ug/L
Beryllium	4.00E+00	4.4 U	ug/L
Boron	7.30E+03	**10400**	ug/L
Cadmium	5.00E+00	2.9 U	ug/L
Calcium	--	**50200**	ug/L
Chromium (Total)	1.00E+02	**3130**	ug/L
Chromium-hexavalent	1.09E+02	**2510 J**	ug/L
Cobalt	7.30E+02	15.7 U	ug/L
Copper	1.30E+03 p	12.5 U	ug/L
Iron	3.00E+02 j	**6310 J-**	ug/L
Lead	1.50E+01 u	24.6 U	ug/L
Magnesium	1.50E+05 a	**39300**	ug/L
Manganese	5.00E+01 j	173 U	ug/L
Molybdenum	1.82E+02	25.0 U	ug/L
Nickel	7.30E+02	25.8 U	ug/L
Platinum	--	5.0 U	ug/L
Potassium	--	**19900**	ug/L
Selenium	5.00E+01	50.0 U	ug/L
Silver	1.00E+02 j	10.1 U	ug/L
Sodium	--	**953000**	ug/L
Strontium	2.19E+04	**1300**	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 U	ug/L
Uranium	3.00E+01	**15.0 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) 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.

LOUs 22 & 23 Associated Piping in Area III Table 6
Groundwater Characterization Data - Routine Monitoring

Pond WC-1 (West) & WC-2 (East) and Associated Piping
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-11	2/2/2006	42.69	52	d	1.80E-02 a,m	2.8	d	1.00E-01	3660		5.00E+02 j			1.00E+01			--
M-11	5/3/2006	43.29	43	d	1.80E-02 a,m	2.7	d	1.00E-01	2980		5.00E+02 j	<0.1	ud	1.00E+01	460	d	--
M-11	8/2/2006	43.50	31.4	d	1.80E-02 a,m	2.8	d	1.00E-01	2700		5.00E+02 j	1.3	d	1.00E+01	230	d	--
M-11	10/31/2006	43.51	33.4	d	1.80E-02 a,m	2.7	d	1.00E-01	3260		5.00E+02 j	3.86	d	1.00E+01	487	d	--
M-11	1/31/2007	43.50	30.6		1.80E-02 a,m	3		1.00E-01	3380		5.00E+02 j			1.00E+01			--
M-11	5/2/2007	43.51	25.1		1.80E-02 a,m	2.7		1.00E-01	3180		5.00E+02 j	3.01		1.00E+01	434		--
M-11	8/2/2007	43.82	33.9		1.80E-02 a,m	2.6		1.00E-01	3400		5.00E+02 j			1.00E+01			--
M-12A	2/2/2006	---	360	d	1.80E-02 a,m	13	d	1.00E-01	10230		5.00E+02 j			1.00E+01			--
M-12A	5/4/2006	---	340	d	1.80E-02 a,m	12	d	1.00E-01	8760		5.00E+02 j	<0.1	ud	1.00E+01	2600	d	--
M-12A	8/2/2006	---	312	d	1.80E-02 a,m	12	d	1.00E-01	5640		5.00E+02 j	13	d	1.00E+01	1260	d	--
M-12A	11/1/2006	---	288	d	1.80E-02 a,m	12	d	1.00E-01	7270		5.00E+02 j	14.1	d	1.00E+01	2540	d	--
M-12A	2/1/2007	---	291		1.80E-02 a,m	12		1.00E-01	7820		5.00E+02 j			1.00E+01			--
M-12A	5/3/2007	---	283	J	1.80E-02 a,m	12		1.00E-01	7910	J	5.00E+02 j	18.2	d	1.00E+01	1980	d	--
M-12A	8/1/2007	---	320		1.80E-02 a,m	13		1.00E-01	7890		5.00E+02 j			1.00E+01			--
M-31A	2/2/2006	46.07	1800	d	1.80E-02 a,m	13	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-31A	5/3/2006	46.41	1700	d	1.80E-02 a,m	13	d	1.00E-01	8030		5.00E+02 j			1.00E+01			--
M-31A	8/2/2006	46.56	1410	d	1.80E-02 a,m	12	d	1.00E-01	6300		5.00E+02 j			1.00E+01			--
M-31A	11/1/2006	47.03	1750	d	1.80E-02 a,m	13	d	1.00E-01	9780		5.00E+02 j			1.00E+01			--
M-31A	1/31/2007	46.43	1490		1.80E-02 a,m	13		1.00E-01	9710		5.00E+02 j			1.00E+01			--
M-31A	5/2/2007	46.05	1400		1.80E-02 a,m	13		1.00E-01	8750		5.00E+02 j			1.00E+01			--
M-31A	8/1/2007	46.84	1710		1.80E-02 a,m	11		1.00E-01	9330		5.00E+02 j			1.00E+01			--
M-34	2/2/2006	---	1800	d	1.80E-02 a,m	17	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-34	5/3/2006	---	1700	d	1.80E-02 a,m	18	d	1.00E-01	8960		5.00E+02 j			1.00E+01			--
M-34	5/7/2006	40.86	1950	d	1.80E-02 a,m			1.00E-01	14500		5.00E+02 j			1.00E+01			--
M-34	8/2/2006	---	1550	d	1.80E-02 a,m	18	d	1.00E-01	7430		5.00E+02 j			1.00E+01			--
M-34	11/1/2006	---	1910	d	1.80E-02 a,m	18	d	1.00E-01	10900		5.00E+02 j			1.00E+01			--
M-34	1/31/2007	---	1860		1.80E-02 a,m	17		1.00E-01	12000		5.00E+02 j			1.00E+01			--
M-34	5/2/2007	37.52	1670		1.80E-02 a,m	17		1.00E-01	9850		5.00E+02 j			1.00E+01			--
M-34	8/1/2007	---	2130		1.80E-02 a,m	16		1.00E-01	11900		5.00E+02 j			1.00E+01			--
M-50	2/2/2006	46.44	970	d	1.80E-02 a,m	39	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-50	5/3/2006	46.58	870	d	1.80E-02 a,m	37	d	1.00E-01	11700		5.00E+02 j			1.00E+01			--
M-50	8/2/2006	46.66	856	d	1.80E-02 a,m	34	d	1.00E-01	10400		5.00E+02 j			1.00E+01			--
M-50	11/1/2006	46.65	1030	d	1.80E-02 a,m	34	d	1.00E-01	13500		5.00E+02 j			1.00E+01			--
M-50	1/31/2007	46.66	801		1.80E-02 a,m	32		1.00E-01	14000		5.00E+02 j			1.00E+01			--
M-50	5/2/2007	46.53	776		1.80E-02 a,m	31		1.00E-01	12400		5.00E+02 j			1.00E+01			--
M-50	8/1/2007	47.02	1080		1.80E-02 a,m	29		1.00E-01	14100		5.00E+02 j			1.00E+01			--
M-52	2/2/2006	---	1200	d	1.80E-02 a,m	10	d	1.00E-01			5.00E+02 j			1.00E+01			--

LOUs 22 & 23 Associated Piping in Area III Table 6 (continued)
Groundwater Characterization Data - Routine Monitoring

Pond WC-1 (West) & WC-2 (East) and Associated Piping
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-52	5/4/2006	---	1100	d	1.80E-02 a,m	9.6	d	1.00E-01	6760		5.00E+02 j			1.00E+01			--
M-52	11/2/2006	---	1020	d	1.80E-02 a,m	9.1	d	1.00E-01	7190		5.00E+02 j			1.00E+01			--
M-52	1/31/2007	---	946		1.80E-02 a,m	9		1.00E-01	8600		5.00E+02 j			1.00E+01			--
M-52	5/2/2007	---	720		1.80E-02 a,m	7.9		1.00E-01	7450		5.00E+02 j			1.00E+01			--

Explanation

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

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

ud = the sample was dilluted 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

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

LOUs 22 & 23 Associated Piping in Area III Table 7
Soil Characterization Data - Organochlorine Pesticides (OCP)

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	
	Boring No.	SA7	
	Sample ID	SA7-0.5	
	Sample Depth (ft)	0.5	
	Sample Date	11/20/2006	
Organochlorine Pesticides	**MSSL[2] mg/kg**		**Unit**
4,4'-DDD	1.10E+01	0.0018 U	mg/kg
4,4'-DDE	7.80E+00	0.0018 U	mg/kg
4,4'-DDT	7.80E+00	0.0018 U	mg/kg
Aldrin	1.10E-01	0.0018 U	mg/kg
Alpha-BHC	4.00E-01	0.0018 U	mg/kg
Alpha-chlordane	1.40E+00 (y)	0.0018 U	mg/kg
Beta-BHC	1.40E+00	0.0018 U	mg/kg
Delta-BHC	--	0.0018 U	mg/kg
Dieldrin	1.20E-01	0.0018 U	mg/kg
Endosulfan I	4.10E+03 (aa)	0.0018 U	mg/kg
Endosulfan II	4.10E+03 (aa)	0.0018 U	mg/kg
Endosulfan Sulfate	4.10E+03 (aa)	0.0018 U	mg/kg
Endrin	2.10E+02	0.0018 U	mg/kg
Endrin Aldehyde	2.10E+02 (k)	0.0018 U	mg/kg
Endrin Ketone	2.10E+02 (k)	0.0018 U	mg/kg
Gamma-BHC (Lindane)	1.90E+00	0.0018 U	mg/kg
Gamma-Chlordane	1.40E+00 (y)	0.0018 U	mg/kg
Heptachlor	4.30E-01	0.0018 U	mg/kg
Heptachlor Epoxide	2.10E-01	0.0018 U	mg/kg
Methoxychlor	3.40E+03	0.0035 UJ	mg/kg
Tech-Chlordane	1.40E+00	0.011 U	mg/kg
Toxaphene	1.70E+00	0.053 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.

LOUs 22 & 23 Associated Piping in Area III Table 8
Groundwater Characterization Data - Organochlorine Pesticides (OCPs)

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	
	Well ID	M11	
	Sample ID	M11	
	Sample Date	12/06/2006	
Organochlorine Pesticides	**MCL[2] ug/L**	ug/L	**Unit**
4,4'-DDD	2.80E-01	0.050 U	ug/L
4,4'-DDE	1.98E-01	0.050 U	ug/L
4,4'-DDT	1.98E-01	0.050 U	ug/L
Aldrin	4.00E-03	0.050 U	ug/L
Alpha-BHC	1.10E-02	0.050 U	ug/L
Alpha-chlordane	2.00E+00 (l)	0.050 U	ug/L
Beta-BHC	3.74E-02	0.050 U	ug/L
Delta-BHC	1.10E-02 (z)	0.050 U	ug/L
Dieldrin	4.20E-03 (z)	0.050 U	ug/L
Endosulfan I	2.19E+02 (aa)	0.050 U	ug/L
Endosulfan II	2.19E+02 (aa)	0.050 U	ug/L
Endosulfan Sulfate	2.19E+02 (aa)	0.050 U	ug/L
Endrin	2.00E+00	0.050 U	ug/L
Endrin Aldehyde	1.09E+01 (k)	0.050 U	ug/L
Endrin Ketone	1.09E+01 (k)	0.050 U	ug/L
Gamma-BHC (Lindane)	2.00E-01	0.050 U	ug/L
Gamma-Chlordane	2.00E+00 (l)	0.050 U	ug/L
Heptachlor	4.00E-01	0.050 U	ug/L
Heptachlor Epoxide	2.00E-01	0.050 U	ug/L
Methoxychlor	4.00E+01	0.10 U	ug/L
Tech-Chlordane	2.00E+00 (l)	0.50 U	ug/L
Toxaphene	3.00E+00	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.

LOUs 22 & 23 Associated Piping in Area III Table 9
Soil Characterization Data - Organophosphorus Pesticides (OPPs)

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]
	Boring No.	SA7
	Sample ID	SA7-0.5
	Sample Depth (ft)	0.5
	Sample Date	11/20/2006
OPPs	**MSSL[2] mg/kg**	mg/kg
Azinphos-methyl	--	0.014 U
Bolstar	--	0.014 U
Chlorpyrifos	2.10E+03	0.021 U
Coumaphos	--	0.014 UJ
Demeton-O	--	0.041 U
Demeton-S	--	0.016 U
Diazinon	6.20E+02	0.023 U
Dichlorvos	6.60E+00	0.024 U
Dimethoate	--	0.023 U
Disulfoton	2.70E+01	0.051 U
EPN	--	0.014 U
Ethoprop	--	0.016 U
Ethyl Parathion	4.10E+03	0.019 U
Famphur	--	0.014 U
Fensulfothion	--	0.014 U
Fenthion	1.70E+02 (ff)	0.035 U
Malathion	1.40E+04	0.016 U
Merphos	--	0.032 U
Methyl parathion	1.70E+02	0.021 U
Mevinphos	--	0.016 U
Naled	1.40E+03	0.035 UJ
Phorate	--	0.021 U
Ronnel	3.40E+04	0.019 U
Stirphos	--	0.016 U
Sulfotep	--	0.021 U
Thionazin	--	0.019 U
Tokuthion	--	0.021 UJ
Trichloronate	--	0.021 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).
(ff) Value for methyl parathion used as surrogate for fenthion based on structural similarities.

LOUs 22 & 23 Associated Piping in Area III Table 10
Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]
	Well ID	M11
	Sample ID	M11
	Sample Date	12/06/2006
OPPs	**MCL[2] ug/L**	ug/L
Azinphos-methyl	--	2.5 U
Bolstar	--	1.0 U
Chlorpyrifos	1.09E+02	1.0 U
Coumaphos	--	1.0 U
Demeton-O	1.46E+00 (cc)	1.0 U
Demeton-S	1.46E+00 (cc)	1.0 U
Diazinon	3.28E+01	1.0 U
Dichlorvos	2.32E-01	1.0 U
Dimethoate	7.30E+00	1.0 U
Disulfoton	1.46E+00	0.50 U
EPN	3.65E-01	1.2 U
Ethoprop	--	0.50 U
Ethyl Parathion	9.12E+00 (tt)	1.0 U
Famphur	--	1.0 U
Fensulfothion	--	2.5 U
Fenthion	9.10E+00 (ff)	2.5 U
Malathion	7.30E+02	1.2 U
Merphos	1.09E+00	5.0 U
Methyl parathion	9.12E+00	4.0 U
Mevinphos	--	6.2 U
Naled	7.30E+01	1.0 U
Phorate	7.30E+00	1.2 U
Ronnel	1.82E+03	10 U
Stirphos	--	3.5 U
Sulfotep	1.82E+01	1.5 U
Thionazin	--	1.0 U
Tokuthion	--	1.6 U
Trichloronate	--	0.50 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
(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.

LOUs 22 & 23 Associated Piping in Area III Table 11
Soil Characterization Data - PCBs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A
Boring ID		SA7	SA7	SA7	SA7	SA7	SA7
Sample ID		SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34
Sample Depth (ft)		0.5	10	10	20	30	34
Sample Date		11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
PCBs	**MSSL[2] mg/kg**						
Aroclor-1016	2.40E+01 (i)	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U
Aroclor-1221	8.30E-01 (i)	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U
Aroclor-1232	8.30E-01 (i)	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U
Aroclor-1242	8.30E-01 (i)	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U
Aroclor-1248	8.30E-01 (i)	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U
Aroclor-1254	8.30E-01 (i)	0.035 U	0.035 U	0.036 U	0.036 U	0.035 U	0.043 U
Aroclor-1260	8.30E-01 (i)	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.
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).

LOUs 22 & 23 Associated Piping in Area III Table 12
Groundwater Characterization Data - PCBs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	
Well ID		M11	
Sample ID		M11	
Sample Date		12/06/2006	
PCBs	**MCL[2] ug/L**		**Unit**
Aroclor-1016	5.00E-01 (bb)	0.10 U	ug/L
Aroclor-1221	5.00E-01 (bb)	0.10 U	ug/L
Aroclor-1232	5.00E-01 (bb)	0.10 U	ug/L
Aroclor-1242	5.00E-01 (bb)	0.10 U	ug/L
Aroclor-1248	5.00E-01 (bb)	0.10 U	ug/L
Aroclor-1254	5.00E-01 (bb)	0.10 U	ug/L
Aroclor-1260	5.00E-01 (bb)	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.

LOUs 22 & 23 Associated Piping in Area III Table 13
Soil Characterization Data - Perchlorate

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Boring ID	Sample ID	Sample Depth (ft)	Sample Date	Perchlorate ug/kg	MSSL[1] ug/kg	Sampling Program
SA7	SA7-0.5	0.5	11/20/2006	**34300 J**	7.95E+05	Ph A[2]
	SA7-10	10	11/20/2006	**109000 J**	7.95E+05	Ph A
	SA7-10D	10	11/20/2006	**113000 J**	7.95E+05	Ph A
	SA7-20	20	11/20/2006	**12800 J**	7.95E+05	Ph A
	SA7-30	30	11/20/2006	**8690 J**	7.95E+05	Ph A
	SA7-34	34	11/20/2006	**31700 J**	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.

LOUs 22 & 23 Associated Piping in Area III Table 14
Groundwater Characterization Data - Perchlorate

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Well ID Number	Sample ID	Sample Date	Perchlorate	Units	MCL[2] ug/L	Sampling Program
M11	M11	12/06/2006	**32500 J+**	ug/L	1.80E+01 a,(m)	Ph A[1]
M11D	M11D	12/06/2006	**32400 J+**	ug/L	1.80E+01 a,(m)	Ph A

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
(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].

LOUs 22 & 23 Associated Piping in Area III Table 15
Soil Characterization Data - Radionuclides

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

				Ra-226	Ra-228	Th-228	Th-230	Th-232	U-233/234	U-235/236	U-238	
				(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	
Boring ID Number	**Sample ID**	**Sample Depth (ft)**	**Date**									**Sampling Program**
SA7	SA7-0.5	0.5	11/20/2006	**1.12 J-**	**1.83 J-**							Ph A[1]
	SA7-10	10	11/20/2006	**1.02 J-**	**1.9 J-**							Ph A
	SA7-10D	10	11/20/2006	**0.939 J-**	**1.77 J-**							Ph A
	SA7-20	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
	SA7-30	30	11/20/2006	**1.79 J-**	**1.78 J-**							Ph A
	SA7-34	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.

LOUs 22 & 23 Associated Piping in Area III Table 16
Groundwater Characterization Data - Radionuclides

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

			Ra-226	Ra-228	Th-228	Th-230	Th-232	U-233/234	U-235/236	U-238	
			pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	
Well ID Number	**Sample ID**	**Date**									**Sampling Program**
M11	M11-Z	05/11/2007	0.332 U	**1.23 B**							Ph A[1]

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

LOUs 22 & 23 Associated Piping in Area III Table 17
Soil Characterization Data - SVOC

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A
		Boring No.	SA7	SA7	SA7	SA7	SA7	SA7
		Sample ID	SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34
		Sample Depth (ft)	0.5	10	10	20	30	34
		Sample Date	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
SVOC	**Analytical Method**	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
1,4-Dioxane	non-SIM	1.70E+05	70 U	350 U	360 U	360 U	350 U	430 U
2-Methylnaphthalene	non-SIM	2.10E+05 (jj)	350 U	350 U	360 U	360 U	350 U	430 U
2-Methylnaphthalene	SIM	2.10E+05 (jj)	7.0 U					
Acenaphthene	non-SIM	3.30E+07	350 U	350 U	360 U	360 U	350 U	430 U
Acenaphthene	SIM	3.30E+07	7.0 U					
Acenaphthylene	non-SIM	3.30E+07 (pp)	350 U	350 U	360 U	360 U	350 U	430 U
Acenaphthylene	SIM	3.30E+07 (pp)	7.0 U					
Anthracene	non-SIM	1.00E+08	350 U	350 U	360 U	360 U	350 U	430 U
Anthracene	SIM	1.00E+08	7.0 U					
Benz(a)anthracene	non-SIM	2.30E+03	350 U	350 U	360 U	360 U	350 U	430 U
Benz(a)anthracene	SIM	2.30E+03	7.0 U					
Benzo(a)pyrene	non-SIM	2.30E+02	350 U	350 U	360 U	360 U	350 U	430 U
Benzo(a)pyrene	SIM	2.30E+02	7.0 U					
Benzo(b)fluoranthene	non-SIM	2.30E+03	350 U	350 U	360 U	360 U	350 U	430 U
Benzo(b)fluoranthene	SIM	2.30E+03	7.0 U					
Benzo(g,h,i)perylene	non-SIM	3.20E+07 (w)	350 U	350 U	360 U	360 U	350 U	430 U
Benzo(g,h,i)perylene	SIM	3.20E+07 (w)	7.0 U					
Benzo(k)fluoranthene	non-SIM	2.30E+04	350 U	350 U	360 U	360 U	350 U	430 U
Benzo(k)fluoranthene	SIM	2.30E+04	7.0 U					
bis(2-Ethylhexyl)phthalate	non-SIM	1.40E+05	350 U	350 U	360 U	360 U	350 U	430 U
Butyl benzyl phthalate	non-SIM	2.40E+05	350 U	350 U	360 U	360 U	350 U	430 U
Chrysene	non-SIM	2.30E+05	350 U	350 U	360 U	360 U	350 U	430 U
Chrysene	SIM	2.30E+05	7.0 U					
Dibenz(a,h)anthracene	non-SIM	2.30E+02	350 U	350 U	360 U	360 U	350 U	430 U
Dibenz(a,h)anthracene	SIM	2.30E+02	7.0 U					
Diethyl phthalate	non-SIM	1.00E+08	350 U	350 U	360 U	360 U	350 U	430 U
Dimethyl phthalate	non-SIM	1.00E+08	350 U	350 U	360 U	360 U	350 U	430 U
Di-N-Butyl phthalate	non-SIM	6.80E+07	350 U	350 U	360 U	360 U	350 U	430 U
Di-N-Octyl phthalate	non-SIM	--	350 U	350 U	360 U	360 U	350 U	430 U
Fluoranthene	non-SIM	2.40E+07	350 U	350 U	360 U	360 U	350 U	430 U
Fluoranthene	SIM	2.40E+07	7.0 U					

LOUs 22 & 23 Associated Piping in Area III Table 17
Soil Characterization Data - SVOC

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A
		Boring No.	SA7	SA7	SA7	SA7	SA7	SA7
		Sample ID	SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34
		Sample Depth (ft)	0.5	10	10	20	30	34
		Sample Date	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
SVOC	**Analytical Method**	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Fluorene	non-SIM	2.60E+07	350 U	350 U	360 U	360 U	350 U	430 U
Fluorene	SIM	2.60E+07	7.0 U					
Hexachlorobenzene	non-SIM	1.20E+03	350 U	350 U	360 U	360 U	350 U	430 U
Hexachlorobenzene	SIM	1.20E+03	7.0 U					
Indeno(1,2,3-cd)pyrene	non-SIM	2.30E+03	350 U	350 U	360 U	360 U	350 U	430 U
Indeno(1,2,3-cd)pyrene	SIM	2.30E+03	7.0 U					
Naphthalene	non-SIM	2.10E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Naphthalene	non-SIM	2.10E+05	350 U	350 U	360 U	360 U	350 U	430 U
Naphthalene	SIM	2.10E+05	7.0 U					
Nitrobenzene	non-SIM	1.10E+05	350 U	350 U	360 U	360 U	350 U	430 U
Octachlorostyrene	non-SIM	--	350 U	350 U	360 U	360 U	350 U	430 U
Phenanthrene	non-SIM	1.00E+08 (n)	350 U	350 U	360 U	360 U	350 U	430 U
Phenanthrene	SIM	1.00E+08 (n)	7.0 U					
Pyrene	non-SIM	3.20E+07	350 U	350 U	360 U	360 U	350 U	430 U
Pyrene	SIM	3.20E+07	7.0 U					
Pyridine	non-SIM	6.80E+05	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.
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 acenapthylene 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.

LOUs 22 & 23 Associated Piping in Area III Table 18
Groundwater Characterization Data - SVOC

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]
		Well No.	M11
		Sample ID	M11
		Sample Date	12/06/2006
SVOCs	**Analytic Method**	**MCL[2] ug/L**	ug/L
1,4-Dioxane	non-SIM	6.11E+00	10 U
2-Methylnaphthalene	non-SIM	6.20E+00 (jj)	10 U
2-Methylnaphthalene	SIM	6.20E+00 (jj)	
Acenaphthene	non-SIM	3.65E+02	10 U
Acenaphthene	SIM	3.65E+02	
Acenaphthylene	non-SIM	3.65E+02 (pp)	10 U
Acenaphthylene	SIM	3.65E+02 (pp)	
Anthracene	non-SIM	1.83E+03	10 U
Anthracene	SIM	1.83E+03	
Benz(a)anthracene	non-SIM	9.21E-02	10 U
Benz(a)anthracene	SIM	9.21E-02	
Benzo(a)pyrene	non-SIM	2.00E-01	10 U
Benzo(a)pyrene	SIM	2.00E-01	
Benzo(b)fluoranthene	non-SIM	9.21E-02	10 U
Benzo(b)fluoranthene	SIM	9.21E-02	
Benzo(g,h,i)perylene	non-SIM	1.83E+02 (w)	10 U
Benzo(g,h,i)perylene	SIM	1.83E+02 (w)	
Benzo(k)fluoranthene	non-SIM	9.21E-01	10 U
Benzo(k)fluoranthene	SIM	9.21E-01	
bis(2-Ethylhexyl)phthalate	non-SIM	6.00E+00	10 U
Butyl benzyl phthalate	non-SIM	7.30E+03	10 U
Chrysene	non-SIM	9.21E+00	10 U
Chrysene	SIM	9.21E+00	
Dibenz(a,h)anthracene	non-SIM	9.21E-03	10 U
Dibenz(a,h)anthracene	SIM	9.21E-03	
Diethyl phthalate	non-SIM	2.92E+04	10 U
Dimethyl phthalate	non-SIM	3.65E+05	10 U
Di-N-Butyl phthalate	non-SIM	3.65E+03	10 U
Di-N-Octyl phthalate	non-SIM	1.46E+03	10 U
Fluoranthene	non-SIM	1.46E+03	10 U
Fluoranthene	SIM	1.46E+03	

LOUs 22 & 23 Associated Piping in Area III Table 18
Groundwater Characterization Data - SVOC

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]
		Well No.	M11
		Sample ID	M11
		Sample Date	12/06/2006
SVOCs	**Analytic Method**	**MCL[2] ug/L**	ug/L
Fluorene	non-SIM	2.43E+02	10 U
Fluorene	SIM	2.43E+02	
Hexachlorobenzene	non-SIM	1.00E+00	10 U
Hexachlorobenzene	SIM	1.00E+00	
Indeno(1,2,3-cd)pyrene	non-SIM	9.21E-02	10 UJ
Indeno(1,2,3-cd)pyrene	SIM	9.21E-02	
Naphthalene	non-SIM	6.20E+00	5.0 U
Naphthalene	non-SIM	6.20E+00	10 UJ
Naphthalene	SIM	6.20E+00	
Nitrobenzene	non-SIM	3.40E+00	10 U
Octachlorostyrene	non-SIM	--	10 U
Phenanthrene	non-SIM	1.80E+03 (n)	10 U
Phenanthrene	SIM	1.80E+03 (n)	
Pyrene	non-SIM	1.83E+02	10 U
Pyrene	SIM	1.83E+02	
Pyridine	non-SIM	3.65E+01	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
(pp) Value for acenaphthene used as surrogate for acenapthylene based
(w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on
(n) Value for anthracene used as surrogate for phenanthrene due to

LOUs 22 & 23 Associated Piping in Area III Table 19
Soil Characteristic Data - TPH and Fuel Alcohols

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

				Fuel Alcohols			Total Petroleum Hydrocarbons			
				Ethanol	Ethylene glycol	Methanol	TPH - ORO	TPH - DRO	TPH - GRO	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			MSSL[1] mg/kg	--	1.00E+05	1.00E+05	1.00E+02 vv	1.00E+02 vv	1.00E+02 vv	
Boring No.	**Sample ID.**	**Sample Depth (ft)**	**Sample Date**							**Sampling Program**
SA7	SA7-0.5	0.5	11/20/2006				**26**	26 UJ	0.11 UJ	Ph A[2]
	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. 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.
(w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on structural similarities.

LOUs 22 & 23 Associated Piping in Area III Table 20
Soil Characterization Data - VOCs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A
	Boring No.		SA7	SA7	SA7	SA7	SA7	SA7
	Sample ID		SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34
	Sample Depth (ft)		0.5	10	10	20	30	34
	Sample Date		11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
VOCs	**MSSL[2] ug/kg**		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Naphthalene	2.10E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,1,1,2-Tetrachloroethane	7.60E+03		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,1,1-Trichloroethane	1.40E+06		5.3 U	**0.54 J**	5.4 U	5.4 U	**0.37 J**	6.5 U
1,1,2,2-Tetrachloroethane	9.70E+02		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,1,2-Trichloroethane	2.10E+03		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,1-Dichloroethane	2.30E+06		5.3 U	**1.9 J**	5.4 U	5.4 U	**1.4 J**	6.5 U
1,1-Dichloroethene	4.70E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,1-Dichloropropene	1.75E+03	(gg)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2,3-Trichlorobenzene	2.60E+05	(hh)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2,3-Trichloropropane	1.60E+03		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2,4-Trichlorobenzene	2.60E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2,4-Trimethylbenzene	2.20E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2-Dibromo-3-chloropropane	2.00E+01		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2-Dichlorobenzene	3.70E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2-Dichloroethane	8.40E+02		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,2-Dichloropropane	8.50E+02		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,3,5-Trimethylbenzene	7.80E+04		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,3-Dichlorobenzene	1.40E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,3-Dichloropropane	4.10E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
1,4-Dichlorobenzene	8.10E+03		5.3 U	5.3 U	**0.32 J**	5.4 U	5.3 U	6.5 U
2,2-Dichloropropane	8.50E+02	(ii)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
2-Butanone	3.40E+07		11 U	11 U	11 U	11 U	11 U	13 U
2-Chlorotoluene	5.10E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
2-Hexanone	1.72E+07	(nn)	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
2-Methoxy-2-methyl-butane	--		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
4-Chlorotoluene	5.10E+05	(ww)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
4-Isopropyltoluene	--		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
4-Methyl-2-pentanone	1.70E+07		11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
Acetone	6.00E+07		**4.5 J**	**6.1 J**	11 U	11 U	**21**	**6.6 J**
Benzene	1.60E+03		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Bromobenzene	1.20E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Bromochloromethane	1.75E+03	(qq)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Bromodichloromethane	2.60E+03		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Bromoform	2.40E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Bromomethane	1.50E+04		11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
Carbon tetrachloride	5.80E+02		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Chlorobenzene	5.00E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Chloroethane	7.20E+03		5.3 UJ	5.3 UJ	5.4 UJ	5.4 UJ	5.3 UJ	6.5 UJ
Chloroform	5.80E+02		5.3 U	**0.40 J**	**0.51 J**	**1.5 J**	**1.9 J**	**20**
Chloromethane	1.70E+05		5.3 UJ	5.3 UJ	5.4 UJ	5.4 UJ	5.3 UJ	6.5 UJ
cis-1,2-Dichloroethene	1.60E+05		5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
cis-1,3-Dichloropropene	1.75E+03	(gg)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U

LOUs 22 & 23 Associated Piping in Area III Table 20(Continued)
Soil Characterization Data - VOCs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A
Boring No.		SA7	SA7	SA7	SA7	SA7	SA7
Sample ID		SA7-0.5	SA7-10	SA7-10D	SA7-20	SA7-30	SA7-34
Sample Depth (ft)		0.5	10	10	20	30	34
Sample Date		11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006	11/20/2006
VOCs	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dibromochloromethane	2.60E+03	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Dibromomethane	5.90E+05 (xx)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Dichlorodifluoromethane	3.40E+05	5.3 UJ	5.3 UJ	5.4 UJ	5.4 UJ	5.3 UJ	6.5 UJ
Ethyl t-butyl ether	7.90E+04 (kk)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Ethylbenzene	2.30E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Ethylene dibromide	7.00E+01	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Hexachlorobutadiene	2.50E+04	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	**1.4 J**
isopropyl ether	--	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Isopropylbenzene	5.80E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Methyl tert butyl ether	7.90E+04	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Methylene chloride	2.20E+04	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
N-Butylbenzene	2.40E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
N-Propylbenzene	2.40E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
sec-Butylbenzene	2.20E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Styrene	1.70E+06	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
t-Butyl alcohol	--	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
tert-Butylbenzene	3.90E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Tetrachloroethene	1.70E+03	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	**2.1 J**
Toluene	5.20E+05	**0.36 J**	**0.58 J**	**0.31 J**	**0.31 J**	**0.45 J**	**0.37 J**
trans-1,2-Dichloroethylene	2.00E+05	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
trans-1,3-Dichloropropene	1.75E+03 (gg)	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Trichloroethene	1.00E+02	5.3 U	5.3 U	5.4 U	5.4 U	5.3 U	6.5 U
Trichlorofluoromethane	1.40E+06	5.3 UJ	5.3 UJ	5.4 UJ	5.4 UJ	5.3 UJ	6.5 UJ
Vinylchloride	8.60E+02	5.3 UJ	5.3 UJ	5.4 UJ	5.4 UJ	5.3 UJ	6.5 UJ
Xylene (Total)	2.10E+05	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.
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.

LOUs 22 & 23 Associated Piping in Area III Table 21
Groundwater Characteristic Data - VOCs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program		Ph A[1]
	Well ID		M11
	Sample ID		M11
	Sample Date		12/06/2006
VOCs	**MCL[2] ug/L**		ug/L
Naphthalene	6.20E+00		5.0 U
1,1,1,2-Tetrachloroethane	4.32E-01		5.0 U
1,1,1-Trichloroethane	2.00E+02		5.0 U
1,1,2,2-Tetrachloroethane	5.00E+00		5.0 U
1,1,2-Trichloroethane	5.00E+00		5.0 U
1,1-Dichloroethane	8.11E+02		5.0 U
1,1-Dichloroethene	7.00E+00		5.0 U
1,1-Dichloropropene	3.95E-01	gg	5.0 U
1,2,3-Trichlorobenzene	7.16E+00	hh	5.0 U
1,2,3-Trichloropropane	5.60E-03		5.0 U
1,2,4-Trichlorobenzene	7.00E+01		5.0 U
1,2,4-Trimethylbenzene	1.23E+01		5.0 U
1,2-Dibromo-3-chloropropane	2.00E-01		5.0 U
1,2-Dichlorobenzene	6.00E+02		5.0 U
1,2-Dichloroethane	5.00E+00		5.0 U
1,2-Dichloropropane	5.00E+00		5.0 U
1,3,5-Trimethylbenzene	1.23E+01		5.0 U
1,3-Dichlorobenzene	1.83E+02		5.0 U
1,3-Dichloropropane	1.22E+02		5.0 U
1,4-Dichlorobenzene	7.50E+01		5.0 U
2,2-Dichloropropane	1.65E-01	ii	5.0 U
2-Butanone	6.97E+03		10 U
2-Chlorotoluene	1.22E+02		5.0 U
2-Hexanone	2.00E+03	nn	10 UJ
2-Methoxy-2-methyl-butane	--		5.0 UJ
4-Chlorotoluene	1.22E+02	ww	5.0 U
4-Isopropyltoluene	--		5.0 U
4-Methyl-2-pentanone	1.99E+03		10 UJ
Acetone	5.48E+03		10 U
Benzene	5.00E+00		5.0 U
Bromobenzene	2.03E+01		5.0 U
Bromochloromethane	1.81E-01	qq	5.0 U
Bromodichloromethane	8.00E+01	r	5.0 U
Bromoform	8.00E+01	r	5.0 U

LOUs 22 & 23 Associated Piping in Area III Table 21 (Cont'd)
Groundwater Characteristic Data - VOCs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]
	Well ID	M11
	Sample ID	M11
	Sample Date	12/06/2006
VOCs	**MCL[2] ug/L**	ug/L
Bromomethane	8.66E+00	10 U
Carbon tetrachloride	5.00E+00	5.0 U
Chlorobenzene	1.00E+02 o	5.0 U
Chloroethane	4.64E+00	5.0 U
Chloroform	8.00E+01 r	**130**
Chloromethane	1.58E+02	5.0 U
cis-1,2-Dichloroethene	7.00E+01	5.0 U
cis-1,3-Dichloropropene	3.95E-01 gg	5.0 U
Dibromochloromethane	8.00E+01 r	5.0 U
Dibromomethane	6.08E+01 xx	5.0 U
Dichlorodifluoromethane	3.95E+02	5.0 UJ
Ethyl t-butyl ether	1.10E+01 kk	5.0 UJ
Ethylbenzene	7.00E+02	5.0 U
Ethylene dibromide	--	5.0 U
Hexachlorobutadiene	8.62E-01	5.0 U
isopropyl ether	--	5.0 UJ
Isopropylbenzene	6.58E+02	5.0 U
Methyl tert butyl ether	2.00E+01 a,uu	5.0 U
Methylene chloride	5.00E+00	5.0 UJ
N-Butylbenzene	2.43E+02	5.0 U
N-Propylbenzene	2.43E+02	5.0 U
sec-Butylbenzene	2.43E+02	5.0 U
Styrene	1.00E+02	5.0 U
t-Butyl alcohol	--	10 UJ
tert-Butylbenzene	2.43E+02	5.0 U
Tetrachloroethene	5.00E+00	5.0 U
Toluene	1.00E+03	5.0 U
trans-1,2-Dichloroethylene	1.00E+02	5.0 U
trans-1,3-Dichloropropene	--	5.0 U
Trichloroethene	5.00E+00	5.0 U

LOUs 22 & 23 Associated Piping in Area III Table 21 (Cont'd)
Groundwater Characteristic Data - VOCs

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]
	Well ID	M11
	Sample ID	M11
	Sample Date	12/06/2006
VOCs	**MCL[2] ug/L**	ug/L
Trichlorofluoromethane	--	5.0 U
Vinylchloride	2.00E+00	5.0 U
Xylene (Total)	1.00E+04	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.
(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].

LOUs 22 & 23 Associated Piping in Area III Table 22
Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction

Pond WC-1 (West) & WC-2 (East) and Associated Piping
Tronox Facility - Henderson, Nevada

			Long Amphibole Protocol Structures	Long Amphibole Protocol Structures	Long Chrysotile Protocol Structures	Long Chrysotile Protocol Structures	
No.	**Sample ID**	**Sample Date**	s/gPM10	(structures/samples)	s/gPM10	(structures/samples)	**Sampling Program**
SA7	SA7	12/07/2006	2988000 U	0	**2990000**	**1**	Ph A[1]

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

Notes for Phase A Data Tables

Pond WC-1 (West) & WC-2 (East) and Associated Piping
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.
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	Soluable 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.
--	Not established