Name of Facility:	LOU 63 – J.B. Kelley, Inc., Trucking Site
Goal of Closure:	 Closure for future industrial/commercial use. Currently (April 2008), this LOU is part of Parcel F that will be sold for redevelopment as a lumber yard. The BRC assessment for shallow and deep soils is currently in progress. As a result, only groundwater and soil gas will be evaluated as part of ENSR's Phase B Source Area Investigation.
Site Investigation Area:	• Size: Approximately 300 feet by 330 feet (2.3 acres).
	• Location: North of the Unit 1 building (in Parcel F).
	• Current Status/Features: LOU 63 is no longer active. It is unpaved and the facility structures have been removed.
Description:	 LOU 63 was used for trucking operations for a company that hauled commodities such as lime and soda ash [Ref. 2].
	• The lease operated from 1980 to 1986 as W.S. Hatch Company, and as J.B. Kelley, Inc. from September 1986 to June 1991 [Ref. 4].
	• A 10,000-gallon fiberglass diesel underground storage tank (UST), a 600-gallon porcelain ceramic-lined waste oil UST, and open concrete vaults were used at this facility [Ref. 2, 3 and 4].
	• Operations included truck washing (tanker trucks), fueling, oil changes, and minor repair work [Ref. 4].
	• Truck wash and maintenance fluids drained to the storm sewer that conveyed water to the Beta Ditch until 1988 when these operations ceased and the storm drain was sealed [Ref. 4].
	• Rinsate (wash water) from washing of the interior of selected trucks was discharged to the storm sewer, two metal tanks, eight concrete vaults, and on various occasions to the ground surface [Ref. 4].
	• The rinsate was periodically neutralized with lime or soda ash and allowed to evaporate or it was hauled off-site for disposal. These activities continued until approximately February 1991 [Ref. 4].
	• Two 1,000-gallon metal tanks were located in the southwestern vault. The walls of the concrete vaults were eight inches thick [Ref. 4].
	• The diesel and waste oil USTs were removed in 1991. Hydrocarbon stained soil beneath the tanks was excavated, and Clark County approved the closure [Ref. 4].

Process Waste Streams Associated with LOU 63	Known or Potential Constituents Associated with LOU 63
Fluids containing petroleum hydrocarbons released during fueling of trucks, oil change and other maintenance activities and leaking USTs containing diesel and waste oil [Ref. 4].	 TPH DRO/ORO VOCs SVOCs
Washwater from the washing of the exterior of trucks [Ref. 4].	 Detergent TPH VOCs SVOCs
Rinsate from the washing of the interior of trucks [Ref. 4].	 Metals (barite, magnesium) Lime Soda ash Magnesium chloride brine Dilute concentrations of ferric chloride, hydrochloric acid, sodium hydrosulfide, sodium hydroxide, and/or titanium tetrachloride [Ref. 4].
Storm water run-on/run-off from the dumped dry residues of hauled materials.	LimeSoda ash
Process Waste Streams Associated with LOU 59 in Area IV	Known or Potential Chemicals Associated with LOU 59 in Area IV
Storm water runoff from LOUs 41, 65a and 65b, 25, 26, and 28.	 Pre 1976 – TPH (from vehicle operations) and chemicals from process effluent listed in this table. Post 1976 – TPH (from vehicle operation), wet chemistry analytes, and perchlorate.
Process effluents from perchlorate production process including slurried filter cakes and cell bottoms, spent caustic scrubbing solution from chlorine gas scrubbing operations, and AP Cooling Tower overflow [Ref. 7].	 Perchlorate Chlorate Metals (Hexavalent chromium, magnesium, platinum) Ammonia Wet chemistry analytes Sodium chloride and sodium hypochlorite

Pickling process wastes from State Industries process line and surface impoundment that was periodically drained for pond maintenance [Ref. 7].	 Metals (iron, total chromium, barium, arsenic, cadmium, lead, selenium) Sulfuric acid Borax Soda ash Phosphates pickle liquor (FeSO4) TURCO II HTC Soap Wet chemistry analytes
Neutralized and un-neutralized waste cyanide solution [Ref. 7].	Cyanide
Overlapping or Adjacent or LOUs: The f <u>Overline</u> • L • Adjac • L • • • LOUS these result proporequi For d refer	ollowing LOUs overlap or are adjacent to LOU 63: <u>lapping LOUs:</u> OU 59 (Storm Sewer System) – overlaps with the astern boundary of LOU 63. <u>cent LOUs:</u> OU 4 (Hardesty Chemical Site) – A portion of LOU 4 is located about 200 feet east (cross-gradient) of LOU 3. OU 65c (Nevada Precast Concrete Products) – ocated adjacent to (cross-gradient) of LOU 63. I A and 65c are cross-gradient to LOU 63; therefore a LOUs are not considered to affect LOU 63. As a t, the addition of other chemical classes to the osed Phase B Analytical Plan for LOU 63 is not red. Letailed information on the LOUs listed above, please to the specific LOU data packages.
Other LOUs Potentially Affecting Soils in LOU 63:	<u>OU 59:</u> The Storm Sewer System running along the astern boundary of LOU 63 carried surface run-off ind discharges from the southern portion of the property near LOUs 4, 25, 26, 41, and 65a. Potential eleases from LOU 59 may have occurred that ffected LOU 63; however, no releases have been locumented. Known or potential chemical classes that are associated with all the above mentioned OUs are consistent with those listed for LOU 63; herefore, the addition of other chemical classes to the Phase B analytical plan for LOU 63 is not required.

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

Known or Potential Chemical Classes:

- Metals
- Wet chemistry analytes
- TPH DRO/ORO
- VOCs
- SVOCs

Known or Potential Release Mechanisms:

- Potential infiltration to subsurface soils and groundwater.
- Documented releases include the following:
 - Hydrocarbon releases from the diesel and waste oil USTs [Ref. 4].
 - Surface releases from truck washing activities [Ref. 4].
 - Minor seepage of liquid between vaults was observed in August 1991 [Ref. 4].
 - Routine sweeping or dumping of dry residues of bulk hauled materials onto the gravel-covered lease area [Ref. 4].
 - Wash water containing soap and trace amounts of oil, grease, and diesel were periodically discharged to the Storm Sewer System between March 1980 and 1988 and to the building pad between 1988 and 1991 [Ref. 4]. The discharge paths would have involved the Storm Sewer System, the Beta Ditch, and surface soils [Ref. 4].
 - Strom water run-on/run-off from the gravelcovered area would flow from the south towards a storm sewer drain located north-northeast of the former truck washing and maintenance facility.

Results of Historical Sampling:

- Several rounds of sampling were conducted:
 - In 1992, borings (at unspecified locations) were sampled to evaluate the USTs, and one groundwater well sample was tested for TPH-DRO, TPH-GRO, and TOC [Ref. 3].
 - In May 1993, wells M-92 (upgradient) and M-93 (located 100 feet downgradient) were sampled to evaluate this LOU. Samples were non-detect for TPH and BTEX [Ref. 3].
 - In April 1997, a soil boring was drilled through a concrete vault and one soil sample (SB7-1-1) was

	collected. In addition, sand from within all eight vaults was composited into one sample (S7-1-S) [Ref. 1].
	 Groundwater monitoring wells M-92 and M-93, located within LOU 63, are routinely tested for total chromium, perchlorate, and TDS as part of routine groundwater monitoring program.
	 Several BRC Phase II borings for Parcel F are located within and immediately surrounding this LOU to evaluate local soil conditions due to potential releases [Report in progress].
	• Analytical results for the historical data are summarized in LOU 63 Tables 3, 4, and 5 [Ref. 2].
Did Historical Samples Address Potential Release?	• No. Historical borings were limited in depth and the constituents were tested and were not representative of the full extent of LOU 63; however, the soil samples collected by BRC will provided a more representative characterization of the area.
Summary of Phase A SAI:	Soil
	• None specifically conducted for LOU 63. The closest boring (SA03) is approximately 200 feet south (upgradient) [Ref. 5]; therefore, this boring is not considered to be representative of soil conditions at this LOU.
	Groundwater
	 Well M-92 is located within LOU 63 but was not sampled specifically to evaluate this LOU [Ref. 5]. Since M-92 is located within the LOU, groundwater data for this well is presented in the data tables.
	Analytical results for groundwater from the Phase A sampling event are summarized in LOU 63 Tables 1 and 2 and Tables 6 through 12 [Ref. 5] (see attached).
Are Phase A Sample Locations in "Worst Case" Areas?	• No
Is Phase B Investigation Recommended?	• Yes
Proposed Phase B Soil Investigation/Rationale:	LOU 63 is located within Parcel F which is being assessed by the BRC Phase B soil assessment. BRC is conducting shallow and deep soil sampling to assess soils at this LOU.

Proposed Phase B Constituents List for Soils:	Not applicable
Proposed Phase B Groundwater Investigation/Rationale:	 The Phase B groundwater investigation of LOU 63 consists of collecting groundwater samples from two locations to evaluate local groundwater conditions and as part of the Site-wide evaluation of constituent trends in groundwater. Both wells (M-92 and M-93) to be sampled are located within the boundaries of LOU 63. Both wells along with the analytical program to evaluate groundwater samples associated with LOU 63 are listed in Table B – Groundwater Sampling and Analytical Plan for LOU 63.
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 Cyanide Organochlorine pesticides Radionuclides
Proposed Phase B Soil Gas Investigation/Rationale:	One soil gas sample will be collected to evaluate area conditions for the presence of vapor-phase VOCs in the vadose zone.
	 Soil gas point SG34 is located within the boundary of LOU 63 as to investigate the system as a potential VOC source.
	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 (by EPA TO-15)
References:	 ENSR Corporation (ENSR), 1997, Phase II Environmental Conditions Assessment located at Kerr-McGee Chemical Corporation, Henderson, Nevada, August 7, 1997.

- 2. ENSR, 2005, Conceptual Site Model, Kerr-McGee Facility, Henderson, Nevada, ENSR, Camarillo, California, 04020-023-130, February 2005 and August 2005.
- 3. Kerr-McGee, 1996, Response to Letter of Understanding, Henderson, Nevada, October 1996.
- 4. Kleinfelder, 1993, Environmental Conditions Assessment, Kerr-McGee Chemical Corporation, Henderson, Nevada Facility, April 15, 1993 (Final).
- 5. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.

Summary of Available Data for LOU 63 J.B. Kelly, Inc., Trucking Site Tronox Facility – Henderson, Nevada

LOU Figure



Summary of Available Data for LOU 63 J.B. Kelly, Inc., Trucking Site Tronox Facility – Henderson, Nevada

Sampling and Analytical Plan for LOU 63:

Note: There is no Table A for LOU 63 Table B – Groundwater Sampling and Analytical Plan for LOU 63

ENSR | AECOM

Grid Location	Location Area	Monitoring Well No.	Sample ID Number	Screen Interval (ft bgs)	Soll Type Expected Across Screen Interval ¹ .	Well Sampled for Phase A? (y/n)	Perchlorate (EPA 314.0)	Hex Cr (EPA 7199)	Metais	VOCs ^{2.} (EPA 8260)	Wet Chemistry (a)	Total Cyanide (EPA 9012A)	OCPs ^{3.} (EPA 8081A)	SVOCs ^{4.} (EPA 8270C)	Radio- nuclides ^{5.}	
			Wells are	organized by g	rid location as	shown on F	Plate A - Sta	aring point	is on the r	northweste	ern-most g	rid in Are	a 4 (P-4) a	and endin	g with th	e southeasterr
P-4	Parcel F	M-93	M-93	35.4 - 45.4	MCfg1	no	X	x	х	x	x		x	x	х	Located to serve stepout for LOU
Q-4	Parcel F	M-92	M-92	34.9 - 44.9	MCfg1	yes	Х	х	х	x	x		х	x	х	Located to serve upgradient step
					Number of Fi	eld Samples:	2	2	2	2	2	0	2	2	2	

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 isotopic Uranium and Thorium, plus Radium-226/228 (NDEP).

(a) Complete list of wet chemistry parameters are shown on Table 1.

TBD To be determined when well is constructed

MCfg1 Muddy Creek Formation - first fine-grained facies

MCcg1 Muddy Creek Formation - first coarse-grained facies

MCfg2 Muddy Creek Formation - second fine-grained facies

Rationale

m-most grid covering Area 4 (Q-4).

e as a downgradient stepout for LOUs 41 and 65; as an upgradient J 63; and for general Site coverage.

ve as a downgradient stepout for LOUs 25, 41, 59, and 65; as an pout for LOU 63; and for general Site coverage.

Summary of Available Data for LOU 63 J.B. Kelly, inc., Trucking Site Tronox Facility – Henderson, Nevada

Soil and Groundwater Characterization Data

Tronox Facility - Henderson, Nevada

LOU-specific analytes identified include:

- • Wet chemistry analytes
- Metals (Phase A list) •
- Perchlorate •
- Hexavalent chromium
- **Organochlorine Pesticides**
- Radionuclides
- **SVOCs**
- VOCs
- **TPH-DRO/ORO**

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

LOU 63 Table 1 – Groundwater Characterization Data – Wet Chemistry LOU 63 Table 2 - Groundwater Characterization Data - Metals LOU 63 Table 3 - Groundwater Characterization Data - Routine Monitoring LOU 63 Table 4 - Groundwater Characterization Data - Historical LOU 63 Table 5 - Groundwater Characterization Data - Historical LOU 63 Table 6 – Groundwater Characterization Data – Organochlorine Pesticides (OCPs) LOU 63 Table 7 – Groundwater Characterization Data – Organophosphorus Pesticides (OPPs) LOU 63 Table 8 - Groundwater Characterization Data - PCBs LOU 63 Table 9 – Groundwater Characterization Data- Perchlorate LOU 63 Table 10 - Groundwater Characterization Data - Radionuclides LOU 63 Table 11 - Groundwater Characterization Data - SVOCs LOU 63 Table 12 - Groundwater Characterization Data - VOCs

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

LOU 63 Table 1 Groundwater Characterization Data - Wet Chemistry

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sam	Ph A ¹		
	M92		
	M92		
	Sample Date	11/29/2006	
Wet Chemietry Beremetere	MCL ²		Unite
wet chemistry Parameters	ug/L		Onte
Total Dissolved Solids	5.00E+05 j	1850	mg/L
Total Suspended Solids		22.0 J	mg/L
Alkalinity (as CaCO3)		5.0 U	mg/L
Bicarbonate		80.0	mg/L
Total Alkalinity		80.0	mg/L
Ammonia (as N)		50.0 U	ug/L
MBAS		0.20 U	mg/L
Cyanide	2.00E+02	R	ug/L
pH (liquid)		7.4 J	none
Specific Conductance		1930	umhos/cm
Bromide		0.21 J	mg/L
Chlorate		3.2 J	mg/L
Chloride	2.50E+05	192	mg/L
Nitrate (as N)	1.00E+04	4.0	mg/L
Nitrite	1.00E+03	0.020 U	mg/L
ortho-Phosphate		5.0 U	mg/L
Sulfate	2.50E+05 j	992	mg/L
Total Organic Carbon		50.0 U	mg/L

Notes:

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

2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted (j) Secondary Drinking Water Regulation value.

LOU 63 Table 2 Groundwater Characterization Data - Metals

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sampl	Ph A ¹		
•	M92		
	Sample ID	M92-Z	
· · · · · · · · · · · · · · · · · · ·	Sample Date	05/08/2007	
Motale	MCL ²		Unit
metais	ug/L		01110
Aluminum	5.00E+01 j	32.6 U	ug/L
Antimony	6.00E+00	0.50 U	ug/L
Arsenic	1.00E+01	95.7	ug/L
Barium	2.00E+03	18.2 U	ug/L
Beryllium	4.00E+00	1.8 U	ug/L
Boron	7.30E+03 c	1820	ug/L
Cadmium	5.00E+00	0.057 U	ug/L
Calcium		155000	ug/L
Chromium (Total)	1.00E+02	15.1 J-	ug/L
Chromium-hexavalent	1.09E+02 c	15.9 J	ug/L
Cobalt	7.30E+02 c	0.32 J-	ug/L
Copper	1.30E+03 p	2.4 U	ug/L
Iron	3.00E+02 j	188 UJ	ug/L
Lead	1.50E+01 u	0.49 U	ug/L
Magnesium	1.50E+05 a	83500	ug/L
Manganese	5.00E+01 j	6.8 U	ug/L
Molybdenum	1.82E+02 c	18.7	ug/L
Nickel	7.30E+02 c	10.3 UJ	ug/L
Platinum		0.10 U	ug/L
Potassium		9650	ug/L
Selenium	5.00E+01	2.3 J	ug/L
Silver	1.00E+02 j	0.20 U	ug/L
Sodium		373000	ug/L
Strontium	2.19E+04 c	2760	ug/L
Thallium	2.00E+00	1.0 U	ug/L
Tin	2.19E+04 c	0.23 J	ug/L
Titanium	1.46E+05 c	4.9 U	ug/L
Tungsten		1.8 UJ	ug/L
Uranium	3.00E+01	8.3 J+	ug/L
Vanadium	3.65E+01 c	32.0 U	ug/L
Zinc	5.00E+03 j	2.0 UJ	ug/L
Mercury	2.00E+00	0.093 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 (j) Secondary Drinking Water Regulation value.

(c) Equal to the USEPA Region 9 Preliminary Remediation Goals (PRGs) for tapwater (October, 2004).

(p) The national primary drinking water regulations (b) lists a treatment technology action level of 1.3 mg/l as the MCL for Copper. Therefore, the secondary value is not used.

(u) See footnote (b). Treatment technology action level.
(a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only

LOU 63 Table 3 Groundwater Characterization Data - Routine Monitoring

Well ID	Date	Depth to water (ft)	Perchlorate mg/L	Qual	MCL ² ug/L	Total Chromium mg/L	Qual	MCL ² ug/L	TDS mg/L	Qual	MCL ² ug/L	Nitrate (as N) mg/L	Quai	MCL ² ug/L	Chlorate mg/L	Qual	MCL ² ug/L
M-92	2/3/2006	36.67	0.89	d	1.80E+01 a,m	<0.01	ud	1.00E+02			5.00E+05 j			1.00E+04			
M-92	5/4/2006	36.65	0.62	d	1.80E+01 a,m	<0.01	ud	1.00E+02	1980		5.00E+05 j			1.00E+04			
M-92	8/2/2006	36.95	0.567	d	1.80E+01 a,m	<0.01	ud	1.00E+02	1670		5.00E+05 j			1.00E+04			
M-92	11/1/2006	36.96	0.676	d	1.80E+01 a,m	<0.01	ud	1.00E+02	1920		5.00E+05 j			1.00E+04			
M-92	1/31/2007	37.21	0.674		1.80E+01 a,m	<0.02	U	1.00E+02	1990		5.00E+05 j			1.00E+04			
M-92	5/3/2007	37.24	0.695	J	1.80E+01 a,m	<0.02	U	1.00E+02	1920	J	5.00E+05 j			1.00E+04			
M-92	8/1/2007	37.77	0.752		1.80E+01 a,m	< 0.02	U	1.00E+02	1990		5.00E+05 j			1.00E+04			

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Notes:

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

(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

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

LOU 63 Table 4 Groundwater Characterization Data - Historical

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sample Analyzed for: Total Organic Carbon (TOC) & TPH								
Sample Matrix:		Sample #1-groundwater from existing well H-38						
Sample Anal	ysis by:	Met-Chem West,	Las Vegas, Nev	/ada				
CAMDLE #	Data	Sample Depth	TOC (mg/l)	TPH (mg/l) EPA 8015-M				
SAWFLE #	Date	(ft bgs)	EPA 415.1	TPH-d	TPH-g			
Sample #1	1/9/1992	GW Elevation	3.3					
		MCL ¹ (ug/L)						

Sample Analyzed for: BTEX &TPH Sample Matrix: Groundwater (Well Samples) Sample Analysis by: Met-Chem West, Las Vegas, Nevada									
<u>oumpio / indi</u>		BTEX (n	ng/I) EPA Meth	od: 602/604, 80	15-M	TPH (mg	/I) 8015-M		
SAMPLE #	Date	Benzene	Toluene	Ethyl- benzene	Total Xylene	TPH-d	TPH-g		
H-38	4/21/1992	0.048	<0.005	0.114	<0.020	<5.0	<10		
H-39	4/29/1992	<0.009	<0.005	<0.010	<0.020	NA	NA		
Detection Limit		0.009	0.005	0.010	0.020	5.0	10.0		
M	CL ¹ (ug/L)	5.00E+00	1.00E+03	7.00E+02	1.00E+04				

Sample Analyzed for: TPH extractable as diesel & BTEX								
Sample Matrix: Groundwater								
Sample Analysis by Alpha Analytical, Inc.								
		BTE	E X (μg/l) EPA Μ	lethod: 624/824	0	8015-M		
SAMPLE #	Date	Bannana	Teluene	Ethyl-	Total Vulana	TPH-d		
		Denzene	Toluene	benzene	Total Aylene	(mg/l)		
M-92	5/6/1993	<1.0	<1.0	<1.0	<1.0	<0.5		
M-93	5/6/1993	<1.0	<1.0	<1.0	<1.0	<0.5		
Detec	ction Limit	1.0	1.0	1.0	1.0	0.5		
M	CL ¹ (ug/L)	5.00E+00	1.00E+03	7.00E+02	1.00E+04			

Notes:

µg/l = micrograms per liter

mg/l = milligrams per liter

TPH-gas = Total Petroleum Hydrocarbons, gasoline range (C_{11} - C_{21})

TPH-d = Total Petroleum Hydrocarbons, diesel range (C_4 - C_{10})

TPH = Total Petroleum Hydrocarbons, Modified EPA Method 8015

TOC =Total Organic Carbon, EPA Method 415.1

NA = Not Analyzed

ft bgs = feet below ground surface

BTEX = Benzene, Toluene, Ethylbenzene, Total Xylene

8015-M = Modified EPA Method 8015

< = not detected above the respective Detection Limit

---- = Either no data was obtained or was not analyzed for the respective constituent.

Source: Kerr-McGee, Response to LOU Comments, 1996.

LOU 63 Table 5 Soil Characterization Data - Historical

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sample Anal	yzed for:	Total Organic Carbon (T	OC) & TPH					
Sample Matr	ix:	Samples #2-25-soil						
Sample Anal	ysis by:	Met-Chem West, Las Ve	gas, Nevada					
	Dete	Semple Depth (ft bgc)	TOC (mg/l) TPH			TPH (mg/l) EPA 8015-M		
SAMPLE #	Date	Sample Depth (it bgs)	EPA 415.1	TPH-d		TPH-g		
Sample #2	1/8/1992	15		<10		<10		
Sample #3	1/8/1992	25		<10		<10		
Sample #4	1/8/1992	35		<10		<10	_	
Sample #5	1/8/1992	37		<10		<10		
Sample #6	1/8/1992	15		<10		<10		
Sample #7	1/9/1992	25		<10		<10		
Sample #8	1/9/1992	35		<10		<10		
Sample #9	1/9/1992	37		<10		<10		
Sample #10	1/9/1992	15		<10		<10		
Sample #11	1/9/1992	25		<10		<10		
Sample #12	1/9/1992	35		<10		<10		
Sample #13	1/9/1992	37		<10		<10		
Sample #14	1/9/1992	15		<10		<10		
Sample #15	1/9/1992	25		<10		<10		
Sample #16	1/9/1992	35		<10		<10		
Sample #17	1/9/1992	37		<10		<10		
Sample #18	1/9/1992	15		<10		<10		
Sample #19	1/10/1992	25		<10		<10		
Sample #20	1/10/1992	35		<10		<10		
Sample #21	1/10/1992	37		<10		<10		
Sample #22	1/10/1992	15		<10		<10		
Sample #23	1/10/1992	25		<10		<10		
Sample #24	1/10/1992	35		<10		<10		
Sample #25	1/10/1992	37		<10		<10		
· · .		PRG ² (mg/kg)		1.00E+02 (*	vv)	1.00E+02	(vv)	

LOU 63 Table 5 (continued) Soil Characterization Data - Historical

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sample Analy	zed for:	Metals, TPH	, pH and VO	Cs									
Sample Matrix	c	Soil, one sa	mple and on	e composite :	sample								
Sample Analy	sis by:	LAS Laborat	ories, Las Ve	egas, Nevada	a								
			Metals	; (mg/kg) EP	A Method 6	010		TPH-d	- mLl	VC)Cs (µg/kg) EPA 8240	
SAMPLE #	Date	<u>^</u>	Ba	Cd	Cr Total	Dh	All	(mg/l)		Toluene	Acetone	1 1 1-TCA	All
		AS	Da	Ca	GIIOLAI	го	Others	EPA 8015-M	A 8015-M	Toldene	Accord	1, 1, 1 10/(Others
S7-1-S	4/8/1997	10.5	516 ¹	0.8	42.9	257	NĎ	<90	9.09	1.1J	<10	<5	NĎ
SB7-1-1	4/8/1997	4.9 ¹	187 ¹	<0.4	19.3	9.9	ND	<30	8.5	<5	13	1.6	ND
Detec	ction Limit	0.6	0.2	0.4	0.2	0.4	various	30	0.1	5	10	5	see below
PR	G ² (mg/kg)	1.59E+00	6.66E+04	4.50E+02	4.48E+02	8.00E+02	NA	1.00E+02 (w)		2.20E+03 (mm)	5.43E+04	6.90E+03 (mm)	NA

Notes:

mg/kg = milligrams per kilogram µg/kg = micrograms per kilogram

--- = Either no data was obtained or was not analyzed for the respective constituent.

< = not detected above the respective PQL

1. Relative Percent Difference (RPD) for duplicate analysis exceeded acceptable quality control limits.

2. U.S. EPA, Region 9, Preliminary Remediation Goals (PRGs) for industrial soil (October, 2004)

-1 = soil sample collected at one foot below ground surface

As = Arsenic

mg/I = milligrams per liter ND = Not determined

Ba = Barium ND = Not c Cd = Cadmium Pb = Lead

Cr = Chromium

-S = surface soil sample

ft bgs = feet below ground surface NA = Not applicable

TOC =Total Organic Carbon, EPA Method 415.1

TPH = Total Petroleum Hydrocarbons, Modified EPA Method 8015

TPH-d = Total Petroleum Hydrocarbons, diesel range (C4 -C10), EPA 8015-M

TPH-gas = Total Petroleum Hydrocarbons, gasoline range (C_{11} - C_{21})

VOCs = Volatile organic compounds

Source: Kerr-McGee, Response to LOU Comments, 1996; and ENSR, 1997, Phase II ECA.

LOU 63 Table 5 (continued) Soil Characterization Data - Historical

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

* Analytes and detection limits for Metals that were non-detect (mg/kg):

Analyte	Reporting Limit (RL)	Analyte	RĽ	Analyte	RL	Analyte	RL
Arsenic	0.6	Cadmium	0.4	Lead	0.4	Silver	0.4
Barium	0.2	Chromium, total	0.2	Mercury (Method 7471)	0.09	Selenium	0.8

* Analytes and detection lin	* Analytes and detection limits for VOC's that were non-detect (µg/kg)						
Analyte	RL Analyte	RL Analyte	RL				
Chloromethane	5 Chloroform	5 1,1,2-Trichloroethane	5				
Vinyl Chloride	5 2-Hexanone	10 Tetrachloroethene (PCE)	5				
Bromomethane	5 1,1,1-Trichloroethane	5 Dibromochloromethane	5				
Chloroethane	5 Carbon Tetrachloride	5 Chlorobenzene	5				
Trichlorofluoromethane	5 1,2-Dichloroethane	5 Ethyl benzene	5				
Acetone	10 Benzene	5 m, p-Xylenes	5				
1,1-Dichloroethene	5 Trichloroethene (TCE)	5 o-Xylene	5				
Carbon Disulfide	5 1,2-Dichloropropane	5 Styrene	5				
Methylene Chloride	5 Bromodichloromethane	5 Bromoform	5				
trans-1,2-Dichloroethene	5 2-Chloroethylvinyl ethe	20 1,1,2,2-Tetrachloroethane	5				
Vinyl Acetate	10 4-Methyl-2-Pentanone	10 1,3-Dichlorobenzene	5				
1,1-Dichloroethane	5 cis-1,3-Dichloropropen	5 1,4-Dichlorobenzene	5				
2-Butanone	10 Toluene	5 1,2-Dichlorobenzene	5				
cis-1,2-Dichloroethene	5 trans-1,3-Dichloroprop	5					

LOU 63 Table 6 Groundwater Characterization Data - Organochlorine Pesticides (OCPs)

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

	Sampling I	Program	Ph A ¹	
		Well ID	M92	
	Sa	imple ID	M92	
	Sam	ple Date	11/29/2006	
Organochlorine Pesticides	MC	L ²		Unit
	ug/	Ľ		
4,4'-DDD	2.80E-01	С	0.050 U	ug/L
4,4'-DDE	1.98E-01	С	0.050 U	ug/L
4,4'-DDT	1.98E-01	C	0.050 U	ug/L
Aldrin	4.00E-03	С	0.050 U	ug/L
Alpha-BHC	1.10E-02	c, (bbb)	0.050 U	ug/L
Alpha-chlordane	2.00E+00	(I)	0.050 U	ug/L
Beta-BHC	3.74E-02	c, (bbb)	0.050 U	ug/L
Delta-BHC	1.10E-02	c, (z)	0.050 U	ug/L
Dieldrin	4.20E-03	c, (z)	0.050 U	ug/L
Endosulfan I	2.19E+02	c, (aa)	0.050 U	ug/L
Endosulfan II	2.19E+02	c, (aa)	0.050 U	ug/L
Endosulfan Sulfate	2.19E+02	c, (aa)	0.050 U	ug/L
Endrin	2.00E+00		0.050 U	ug/L
Endrin Aldehyde	1.09E+01	c, (k)	0.050 U	ug/L
Endrin Ketone	1.09E+01	c, (k)	0.050 U	ug/L
Gamma-BHC (Lindane)	2.00E-01		0.050 U	ug/L
Gamma-Chlordane	2.00E+00	(I)	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	(I)	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

(c) Equal to the USEPA Region 9 Preliminary Remediation Goals (PRGs) for tapwater (October, 2004).

(bbb) BHC listed as HCH in the PRG table.

(I) Value for chlordane used as surrogate for alpha-chlordane, chlordane (technical) and gamma-chlordane due to structural similarities.

(z) Value for alpha-BHC used as surrogate for delta-BHC based on structural similarities.

(aa) Value for endosulfan used as surrogate for endosulfan I, endosulfan II and endosulfan sulfate based on structural similarities.

(k) Value for endrin used as surrogate for endrin aldehyde and endrin ketone due to structural similarities.

LOU 63 Table 7 Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

	Sampling Prog	ram	Ph A ¹	
	Wel	I ID	M92	
	Sample	e ID	M92	
	Sample D	ate	11/29/2006	
OPPe	MCL ²			Unit
OFF8	ug/L			Omt
Azinphos-methyl			2.5 UJ	ug/L
Bolstar			1.0 U	ug/L
Chlorpyrifos	1.09E+02	С	1.0 U	ug/L
Coumaphos			1.0 U	ug/L
Demeton-O	1.46E+00 c,((cc)	1.0 U	ug/L
Demeton-S	1.46E+00 c,	(cc)	1.0 U	ug/L
Diazinon	3.28E+01		1.0 U	ug/L
Dichlorvos	2.32E-01		1.0 U	ug/L
Dimethoate	7.30E+00		1.0 U	ug/L
Disulfoton	1.46E+00		0.50 U	ug/L
EPN	3.65E-01		1.2 U	ug/L
Ethoprop			0.50 U	ug/L
Ethyl Parathion	9.12E+00 c,	(tt)	1.0 U	ug/L
Famphur			1.0 U	ug/L
Fensulfothion			2.5 U	ug/L
Fenthion	9.10E+00 c,	(ff)	2.5 U	ug/L
Malathion	7.30E+02		1.2 U	ug/L
Merphos	1.09E+00		5.0 U	ug/L
Methyl parathion	9.12E+00		4.0 U	ug/L
Mevinphos			6.2 U	ug/L
Naled	7.30E+01		1.0 UJ	ug/L
Phorate	7.30E+00		1.2 U	ug/L
Ronnel	1.82E+03		10 U	ug/L
Stirphos			3.5 U	ug/L
Sulfotep	1.82E+01		1.5 U	ug/L
Thionazin			1.0 U	ug/L
Tokuthion			1.6 U	ug/L
Trichloronate			0.50 U	ug/L

Notes:

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

2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted (c) Equal to the USEPA Region 9 Preliminary Remediation Goals (PRGs) for tapwater (October, 2004).

(cc) Value for demeton used as surrogate for demeton-o and demeton-s based on structural similarities.

(tt) Value for parathion-methyl used as surrogate for parathion-ethyl due to structural similarities.

(ff) Value for methyl parathion used as surrogate for fenthion based on structural similarities.

LOU 63 Table 8 Groundwater Characterization Data - PCBs

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

San	pling Program	Ph A ¹	
	Well ID	M92	
	Sample ID	M92	
	Sample Date	11/29/2006	
MCL ²			llnit
ruds	ug/L		Onic
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.

LOU 63 Table 9 Groundwater Characterization Data - Perchlorate

J.B. Kelley, Inc. Trucking Site
Tronox Facility - Henderson, Nevada

Well ID	Sample ID	Sample Date	Perchlorate	Units	MCL ¹	Sampling
Number		1			ug/L	Program
M92	M92	11/29/2006	610	ug/L	1.80E+01 a,(m)	Ph A ²

Notes:

1. U.S. EPA Maximum Contaminant Level (MCL) values unless noted

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

(a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.

(m) Equal to the provisional action level derived by NDEP as referenced in "Defining a Perchlorate Drinking Water Standard". NDEP Bureau of Corrective Action. URL [http://ndep.nv.gov/bca/perchlorate02_05.htm].

LOU 63 Table 10 Groundwater Characterization Data - Radionuclides

			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	
		TW PRG ^{1,2}	8.16E-04	4.58E-02	1.59E-01	5.23E-01	4.71E-01	6.74E-01	6.63E-01	5.47E-01	
Well ID Number	Sample ID	Date									Sampling Program
M92	M92-Z	05/08/2007	0.241 J	0.736 J-	0.00575 U	0.0354 B	0.0198 U	3.01	0.0466 J	1.94	Ph A ³

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Notes:

1. Equal to the USEPA Region 9 Preliminary Remediation Goals (PRGs) for tapwater (October, 2004).

2. USEPA, 2004. Radionuclide Toxicity and Preliminary Remediation Goals (PRGs) for Superfund. http://epa-

prgs.ornl.gov/radionuclides/download.shtml. August 4, 2004. Soil values are the outdoor worker values; water values are the tapwater values. For radionuclides with decay chains, the PRG for the decay chain was used.

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

LOU 63 Table 11 Groundwater Characterization Data - SVOCs

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

	n PhA ¹		
	M92		
	D M92		
	e 11/29/2006		
SVOCe	Analytic	MCL ²	11 0 /1
57005	Method	ug/L	սց/Ը
1,4-Dioxane	non-SIM	6.11E+00 c	10 U
2-Methylnaphthalene	non-SIM	6.20E+00 c,(jj)	10 U
2-Methylnaphthalene	SIM	6.20E+00 c,(jj)	
Acenaphthene	non-SIM	3.65E+02 c	10 U
Acenaphthene	SIM	3.65E+02 c	
Acenaphthylene	non-SIM	3.65E+02 c,(pp) 10 U
Acenaphthylene	SIM	3.65E+02 c,(pp)
Anthracene	non-SIM	1.83E+03 c	10 U
Anthracene	SIM	1.83E+03 c	
Benz(a)anthracene	non-SIM	9.21E-02 c	10 U
Benz(a)anthracene	SIM	9.21E-02 c	
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 c	10 U
Benzo(b)fluoranthene	SIM	9.21E-02 c	
Benzo(g,h,i)perylene	non-SIM	1.83E+02 c,(w)	10 U
Benzo(g,h,i)perylene	SIM	1.83E+02 c,(w)	
Benzo(k)fluoranthene	non-SIM	9.21E-01 c	10 U
Benzo(k)fluoranthene	SIM	9.21E-01 c	
bis(2-Ethylhexyl)phthalate	non-SIM	6.00E+00	3.2 J
Butyl benzyl phthalate	non-SIM	7.30E+03 c	10 U
Chrysene	non-SIM	9.21E+00 c	10 U
Chrysene	SIM	9.21E+00 c	
Dibenz(a,h)anthracene	non-SIM	9.21E-03 c	10 U
Dibenz(a,h)anthracene	SIM	9.21E-03 c	
Diethyl phthalate	non-SIM	2.92E+04 c	10 U
Dimethyl phthalate	non-SIM	3.65E+05 c	10 U
Di-N-Butyl phthalate	non-SIM	3.65E+03 c	10 U
Di-N-Octyl phthalate	non-SIM	1.46E+03 c	10 U
Fluoranthene	non-SIM	1.46E+03 c	10 U
Fluoranthene	SIM	1.46E+03 c	
Fluorene	non-SIM	2.43E+02 c	10 U
Fluorene	SIM	2.43E+02 c	-
Hexachlorobenzene	non-SIM	1.00E+00	10 U
Hexachlorobenzene	SIM	1.00E+00	
Indeno(1,2,3-cd)pyrene	non-SIM	9.21E-02 c	10 U
Indeno(1,2,3-cd)pyrene	SIM	9.21E-02 c	
Naphthalene	non-SIM	6.20E+00 c	5.0 U
Naphthalene	non-SIM	6.20E+00 c	10 U
Naphthalene	SIM	6.20E+00 c	
Nitrobenzene	non-SIM	3.40E+00 c	10 U
Octachlorostyrene	non-SIM	C	10 U

LOU 63 Table 11 (continued) Groundwater Characterization Data - SVOCs

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

	5	Sampling Pro	ogram	Ph A ¹
		We	ell No.	M92
		Sam	ple ID	M92
		Sample	e Date	11/29/2006
SVOCa	Analytic	MCL ²	2	ua/l
30005	Method	ug/L		uy/L
Phenanthrene	non-SIM	1.80E+03	(n)	10 U
Phenanthrene	SIM	1.80E+03	(n)	
Pyrene	non-SIM	1.83E+02	С	10 U
Pyrene	SIM	1.83E+02	с	
Pyridine	non-SIM	3.65E+01	С	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 (c) Equal to the USEPA Region 9 Preliminary Remediation Goals (PRGs) for tapwater (October, 2004).

(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 structu

LOU 63 Table 12 Groundwater Characterization Data - VOCs

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sampling Program		Ph A ¹
	Well ID	M92
	Sample ID	M92
	Sample Date	11/29/2006
	MCL ²	
VOCs		ug/L
Naphthalene	6.20F+00 c	5.0 U
1 1 1 2-Tetrachloroethane	4 32F-01 c	500
1 1 1-Trichloroethane	2.00E+02	500
1 1 2 2-Tetrachloroethane	5.00E+00	5.0 U
1.1.2-Trichloroethane	5.00E+00	500
1 1-Dichloroethane	8 11F+02 c	500
1.1-Dichloroethene	7.00E+00	14
1.1-Dichloropropene	3.95E-01 c.gg	5.0 U
1.2.3-Trichlorobenzene	7.16E+00 c.hh	5.0 U
1.2.3-Trichloropropane	5.60E-03 c.vv	5.0 U
1.2.4-Trichlorobenzene	7.00F+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 c	5.0 U
1.3-Dichlorobenzene	1.83E+02 c	5.0 U
1.3-Dichloropropane	1.22E+02 c	5.0 U
1.4-Dichlorobenzene	7.50E+01	0.76 J
2.2-Dichloropropane	1.65E-01 c.ii	5.0 U
2-Butanone	6.97E+03 c	10 U
2-Chlorotoluene	1.22E+02 c	5.0 U
2-Hexanone	2.00E+03 c.nn	10 UJ
2-Methoxy-2-methyl-butane		5.0 U
4-Chlorotoluene	1.22E+02 c.ww	5.0 U
4-Isopropyltoluene		5.0 U
4-Methyl-2-pentanone	1.99E+03 c	10 U
Acetone	5.48E+03 c	10 U
Benzene	5.00E+00	5.0 U
Bromobenzene	2.03E+01 c	5.0 U
Bromochloromethane	1.81E-01 c,qq	5.0 U
Bromodichloromethane	8.00E+01 r	5.0 U
Bromoform	8.00E+01 r	5.0 U
Bromomethane	8.66E+00 c	10 UJ
Carbon tetrachloride	5.00E+00	5.0 U
Chlorobenzene	1.00E+02 c,o	5.0 U
Chloroethane	4.64E+00	5.0 UJ
Chloroform	8.00E+01 r	30
Chloromethane	1.58E+02 c	5.0 UJ
cis-1,2-Dichloroethene	7.00E+01	5.0 U
cis-1,3-Dichloropropene	3.95E-01 c,gg	5.0 U
Dibromochloromethane	8.00E+01 r	5.0 U
Dibromomethane	6.08E+01 c,xx	5.0 U
Dichlorodifluoromethane	3.95E+02 c	5.0 UJ
Ethyl t-butyl ether	1.10E+01 c,kk	5.0 U
Ethylbenzene	7.00E+02	5.0 U
Ethylene dibromide		5.0 U
Hexachlorobutadiene	8.62E-01 c	5.0 U

LOU 63 Table 12 (continued) Groundwater Characterization Data - VOCs

J.B. Kelley, Inc. Trucking Site Tronox Facility - Henderson, Nevada

Sampling Program		Ph A ¹
Well ID		M92
Sample ID		M92
·····	Sample Date	11/29/2006
VOCs	MCL ²	ug/L
	ug/L	
isopropyl ether		5.0 U
Isopropylbenzene	6.58E+02 c,zz	5.0 U
Methyl tert butyl ether	2.00E+01 a,uu	5.0 U
Methylene chloride	5.00E+00	5.0 U
N-Butylbenzene	2.43E+02 c	5.0 U
N-Propylbenzene	2.43E+02 c	5.0 U
sec-Butylbenzene	2.43E+02 c	5.0 U
Styrene	1.00E+02	5.0 U
t-Butyl alcohol		10 UJ
tert-Butylbenzene	2.43E+02 c	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	3.8 J
Trichlorofluoromethane		5.0 UJ
Vinylchloride	2.00E+00	5.0 UJ
Xylene (Total)	1.00E+04	10 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 (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.

(yy) PRG table (c) lists both cancer and non-cancer endpoint-based values. The cancer endpoint-based values were selected, as the cancer endpoint-based values are lower than the noncancer endpoint-based values.

(ii) Value for 1,2-dichloropropane used as surrogate for 2,2dichloropropane based on structural similarities.

(nn) Value for methyl isobutyl ketone used as surrogate for 2hexanone 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.

(zz) Isopropyl benzene is listed as cumene (isopropylbenzene) in the PRG table.

(uu) NDEP, 1998. Oxygenated Fuel Corrective Action Guidance. Draft. October, 12 1998. URL [http://ndep.nv.gov/bca/mtbe_doc.htm].

LOU 63 Table 13 Notes for Phase A Data Tables

J.B. Kelley, Inc. Trucking Site 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. В The result may be a false positive totally attributable to blank contamination. D Dissolved Metals. **Dissolved Oxygen.** DO The result is an estimated quantity. The associated numerical value is the approximate concentration of the J analyte in the sample. J-The result is an estimated quantity and the result may be biased low. The result is an estimated quantity and the result may be biased high. J+ JB The result may be biased high partially attributable to blank contamination. The result is an estimated maximum possible concentration. JK The result was rejected and unusable due to serious data deficiencies. The presence or absence of the R analyte cannot be verified. S Soluable metals Т 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. Milligrams per liter. mg/L 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. PicoCuries per liter. pci/L s/gPM10 Revised protocol structures per gram PM10 fraction dust. TEF Toxic Equivalency Factor. TEQ **Toxic Equivalent Concentration** Micrograms per kilogram. ug/kg 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). Sample ID suffix indicating the sample was collected using low-flow pumping rates (150-480 ml/min) and field F filtered. Ζ 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.
- -- PRG not established