

July 24, 2007

Mr. Brian A. Rakvica, P.E. Nevada Division of Environmental Protection Bureau of Corrective Actions 2030 E. Flamingo Road, Suite 230 Las Vegas, Nevada 89119-0818

## Subject: Phase 2 Sampling and Analysis Plan to Conduct Soil Characterization, Tronox Parcels "A" and "B" Site, Henderson, Nevada

Dear Brian:

On behalf of Tronox, Basic Environmental Company (BEC) appreciates the opportunity to submit this letter Phase 2 Sampling and Analysis Plan (SAP) to conduct soil characterization of the Tronox Parcels "A" and "B" (portions of APN Nos. 178-01-401-001, 178-12-101-002, 178-12-201-006, and 178-12-601-005). Parcels A and B will collectively be referred to as the Site for the purposes of this work plan. The Site is located north of Warm Springs Road, 1/4 mile west of the intersection with Boulder Highway, in Henderson, Nevada. Figure 1 illustrates the location of the subject Site relative to the Tronox property. Figures 2 and 3 show details of the Parcels A and B themselves. Legal boundaries of the Parcels A and B will be provided to the NDEP prior to issuance of the requested No Further Action Determinations (NFADs). It should be noted that the Nevada Pick-A-Part facility is not a part of the Site.

### Background

The Site, which represents a portion of the Tronox property, is comprised of primarily of vacant land, and includes an area in the northeast corner of the Parcel formerly leased by Lavern Vohs. BEC also recognizes that other historic uses/disposals on or near the Site may have occurred. A Phase 1 investigation has been performed on the Site. The Phase 1 investigation, Site visits and historical aerial photographs analysis indicate the presence of certain debris, gravel, fill and concrete/asphalt piles, an abandoned baghouse of unknown origin, and multiple five gallon pails of what appears to be oil to be located on the Site. In addition, there are at least two "homeless" camps that may or may not be currently in use on the Site. Given the vicinity of BMI Industrial Companies, it is also possible that the Site or portions thereof could also have been indirectly impacted by such operations.

Several monitoring wells are located within these properties, which are used by several of the BMI plant operating companies. For example, Tronox collected a groundwater sample from monitoring well M95 during it's recent (December 2006) Phase A source area investigation. Low parts per billion (ppb) levels of several volatile organic compounds (VOCs) were detected in this sample. Chloroform was detected at 350 ppb. In addition, Stauffer Management Company LLC (Stauffer), Montrose Chemical Corporation of California (Montrose), Syngenta Crop Protection, Inc., and Pioneer Americas, LLC (the Companies) conducted quarterly groundwater samples from three monitoring wells within the property (H-49A, H-56A, and H-58A). Similar

results were found to the Tronox sampling event, that is, low ppb levels of VOCs. No chemicals, including VOCs, were found at levels in wells within the Site higher than wells located upgradient of parcels A and B in any of the previous sampling events. This suggests that there are not any on-Site sources of groundwater impacts.

This Sampling and Analysis Plan will focus on the upper 10 feet of soil in order to obtain a No Further Action (NFA) determination from the NDEP in order to support future industrial/commercial use on this Site. No residential use is planned.

# **Objective**

The objective of the field investigation is to identify and characterize the distribution of Siterelated chemicals (SRC) in the vicinity of the future land use features (e.g., warehouses, commercial office buildings) and historical site features (e.g., debris piles, burn areas due to homeless activities, etc.). Surface and shallow subsurface samples that will be collected are depth-discrete soil matrix samples. Sample locations have been placed to both evaluate potential future land use exposures (although future plans are not fully defined at this time), and to characterize potential source areas on the Site. The sample locations provide spatial coverage of the Site (Figures 2 and 3). The rationale for location of the sampling points is to ensure that the entire Site is reasonably and completely covered for sampling purposes in order to obtain data that is representative of the Site, that specific locations within the Site that were potentially impacted are also sampled, and that the sampled concentrations can be meaningfully used in subsequent risk assessments, if needed. Ultimately, the purpose of this sampling is to support the NFADs for Parcels A and B.

# Scope of Work

The following is the proposed scope of work for investigating the Site and meeting the SAP objectives. The scope of work has been divided into three main tasks: 1) Field Implementation; 2) Data Evaluation; and 2) Reporting.

# Task 1: Field Implementation

The purpose of the intrusive investigation is to collect data sufficient to meet the objectives of the SAP. All sampling and sample handling procedures will be consistent with the NDEP-approved BRC Field Sampling and Standard Operating Procedures (FSSOP) (BRC and MWH, 2006a).

The proposed analyte list is composed of VOCs, semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAHs), metals, organochlorine pesticides, perchlorate, ions (including chloride, nitrate, nitrite, and sulfate), and asbestos. This list includes all of the compounds (with a few additional modifications as discussed subsequently) on Tronox's "reduced list" as shown in Table 1. Tronox's reduced list was developed as a subset of the entire suite of Tronox SRCs based on the findings of the Tronox Phase A Source Area Investigation. The modifications are as follows: first, in general instead of analyzing for specific members of certain analyte categories like metals, VOCs and SVOCs, the entire suite will be analyzed and reported; second, the organophosphate pesticide suite was eliminated since the only detection in that analytical suite (dimethoate) was very low; third, the radionuclide suite was eliminated since the Phase A results for radionuclides were consistent with background per Tronox; fourth, not all SRCs are proposed to be analyzed at all depths in this SAP (for example, asbestos is proposed to be analyzed in surface soil samples only); and lastly, although dioxins/furans are not on the Tronox SRC list, because they may potentially be present on the Site (for example in the burn areas), they are also proposed for analysis in surface soil samples.

Given the absence of direct operations on this Site of a nature commensurate to that which took place on the Tronox plant site itself, the proposed SRC list and proposed sampling should characterize those sources that were located on the Site, as well as likely chemicals that may have been deposited on the Site via fugitive dust emissions from the Tronox operations and property and/or other neighboring BMI plants. The proposed analyte list for this SAP is presented in Table 1. Unless otherwise noted in the footnotes in Table 1, all analytes will be analyzed at all locations. BEC notes that this analyte list may not be appropriate for any future planned investigations (such as the proposed Tronox Phase B investigation) at the Site (which will extend from below 10 feet below ground surface [bgs] to groundwater).

# **Pre-Field Activities**

The pre-field activities will be conducted in accordance with applicable standard operating procedures (SOPs; BRC and MWH, 2006a). The BRC Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP) prepared for the BMI Common Areas (BRC and MWH, 2006b,c) will be used for this proposed scope of work. All work will be completed under the direction of a State of Nevada Certified Environmental Manager.

### Soil Borings

The SOPs referred to in the following discussion are documented in the FSSOP. BEC will implement field screening using photoionization detectors (PIDs) (using two lamps) in accordance with SOP-39. SOP-1 will be followed for all drilling activities including Hollow Stem Auger drilling. The field geologist will prepare logs for each boring indicating the Unified Soil Classification System (USCS) soil classification (SOP-17), an estimate of field moisture content, sampling depths, progress of drilling (SOP-15), final completion depth, and the nature and resolution of any problems encountered.

Soil sample and auger boring locations will be surveyed using a handheld GPS to a horizontal accuracy of 3 meters (approximately 10 feet) or better. Soil cuttings generated during soil sampling and drilling activities will be collected on visqueen, analyzed, and appropriately disposed off. Due to the nature of the shallow sampling, it is not anticipated that a significant amount of excess soil will be generated as a result of the sampling, or that the soils will require special handling. Also, because the groundwater at the Site is generally 25 to 30 feet bgs, it is not anticipated that groundwater will be encountered during drilling of the shallow borings. The quality assurance/quality control (QA/QC) procedures that will be followed during the field investigation are detailed in Section B of the QAPP (BRC and MWH, 2006b).

Soil matrix samples will be collected based on random sample locations placed within a 4-acre grid across the Site, and at each of the miscellaneous pile locations. Soil borings will be advanced with a hollow-stem auger to a total depth of 10 feet below ground surface (bgs). Soil samples will be collected at approximately zero (i.e., surface), five and 10 feet bgs. Soil samples will be analyzed for the analyte list provided in Table 1, with limitations as noted in the footnotes to this table.

## Task 2: Data Evaluation

Once the data are collected, BEC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the QAPP (BRC and MWH, 2006b). Only those data determined by the QA/QC review to be suitable for use will be considered for the site data set. A separate Data Validation Summary Report will be prepared and submitted to NDEP.

### Task 2: Reporting

Upon receipt of laboratory analytical results, an investigation report will be prepared. The report shall contain, but not be limited to, the following items:

- A summary of the sampling procedures conducted;
- Sampling location map;
- Soil boring logs;
- An evaluation and summary of the collected data;
- Tables(s) summarizing soil results; and
- If appropriate, plan view maps indicating the locations of detected constituents in soil.

Given the depth to groundwater at the Site (approximately 25 to 30 feet bgs, as measured at onsite monitoring wells), and the fact that future development will cover the Site with paved areas and buildings, migration of chemicals at the Site to groundwater is considered unlikely. However, once the data are collected this will be evaluated in the report. It should also be noted that development of the site will not preclude future groundwater investigation or remediation activities that may need to be conducted by Tronox.

Following collection and analysis of soil samples, the data will be discussed with the NDEP. This will include a comparison to recently approved BRC-TIMET background data set (TetraTech, 2007). If required upon this evaluation, a risk assessment will be conducted to evaluate the potential risks to future on-site human receptors. The receptors identified to be evaluated in the risk assessment will be consistent with the proposed development of the Site. These receptors will include construction workers, indoor commercial workers, and outdoor maintenance workers. Because the proposed development does not include residential units, on-site residents will not be evaluated. The risk assessment will be conducted using standard U.S. Environmental Protection Agency (USEPA) guidance, input parameters, and methods. A risk assessment work plan will be submitted to NDEP after sample results have been obtained and NDEP approval will be obtained prior to conducting the risk assessment.

# **Schedule**

Once final approval of the SAP is received from NDEP, field implementation activities can commence within one to two weeks. BEC will provide NDEP with at least one week notice prior to the initiation of field activities at the Site. It is anticipated that this work can be completed within one week, depending on field conditions. The soil samples will be submitted to the laboratories and placed on a standard turn around time, which is 28 days for the complete analyte list. A report will be completed within three weeks after the final data are received from the laboratory and validated.

#### **Closing Remarks**

See attached for appropriate certification language and signature. Please direct any remaining questions or comments you may have to me at 626-382-0001.

Sincerely,

**Basic Environmental Company** 

Ranajit Sahu, CEM Project Manager

Attachments:

Table 1 – Project List of Analytes – Soil Figure 1 – Tronox/BEC Parcel Map Figure 2 – Proposed Sample Locations – Parcel "A" Figure 3 – Proposed Sample Locations – Parcel "B"

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2007) Date BRC Project Manager TABLES

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 1 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Ions	EPA 300.0	Bromide	24959-67-9			X	X
		Bromine	7726-95-6			Х	Х
		Chlorate	14866-68-3			Х	Х
		Chloride	16887-00-6	Х	Х	Х	Х
		Chlorine (soluble)	7782-50-5		1	Х	Х
		Chlorite	14998-27-7			Х	Х
		Fluoride	16984-48-8			Х	Х
		Nitrate (as N)	14797-55-8	Х	Х	Х	Х
		Nitrite (as N)	14797-65-0		Х	Х	Х
		Orthophosphate	14265-44-2			Х	Х
		Sulfate	14808-79-8	Х	Х	Х	Х
	EPA 314.0	Perchlorate	14797-73-0	Х	Х	Х	Х
Polychlorinated	EPA 8290	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0			Х	
Dibenzodioxins/		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9			Х	
Dibenzofurans		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4			Х	
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9			Х	
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7			Х	
		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9			Х	
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6			Х	
		1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9			Х	
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7			Х	
		1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9			Х	
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3			Х	
		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6			Х	
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4			Х	
		2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5			Х	
		2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4			Х	
		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9			Х	
		2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6			X	
	Elutriator/TEM	Asbestos	1332-21-4	Х	X	Х	
Metals E	EPA 6020/6010B	Aluminum	7429-90-5	V	Х	Х	X
		Antimony	7440-36-0	X	Х	Х	Х
		Arsenic	7440-38-2	Х	Х	X	Х
		Barium	7440-39-3		X	X	X
		Beryllium	7440-41-7		X	Х	X
		Boron	7440-42-8	Х	X	X	X
		Cadmium	7440-43-9		X	X	X
		Calcium	7440-70-2	Х	Х	Х	Х

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 2 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Metals	EPA 6020/6010B	Chromium	7440-47-3	Х	Х	X	X
(continued)		Cobalt	7440-48-4		Х	Х	Х
		Copper	7440-50-8			Х	Х
		Iron	7439-89-6		Х	Х	Х
		Lead	7439-92-1	Х	Х	Х	Х
		Lithium	1313-13-9			Х	Х
		Magnesium	7439-95-4		Х	Х	Х
		Manganese	7439-96-5	Х	Х	Х	Х
		Molybdenum	7439-98-7		Х	Х	Х
		Nickel	7440-02-0		Х	Х	Х
		Niobium	7440-03-1			Х	Х
		Palladium	7440-05-3			Х	Х
		Phosphorus	7723-14-0			Х	Х
		Platinum	7440-06-4			Х	Х
		Potassium	7440-09-7			Х	Х
		Selenium	7782-49-2			Х	Х
		Silicon	7440-21-3			Х	Х
		Silver	7440-22-4			Х	Х
		Sodium	7440-23-5	Х	Х	Х	Х
		Strontium	7440-24-6	Х	Х	Х	Х
		Sulfur	7704-34-9			Х	Х
		Thallium	7440-28-0		Х	Х	Х
		Tin	7440-31-5			Х	Х
		Titanium	7440-32-6			Х	Х
		Tungsten	7440-33-7			Х	Х
		Uranium	7440-61-1		Х	Х	Х
		Vanadium	7440-62-2		Х	Х	Х
		Zinc	7440-66-6			Х	Х
		Zirconium	7440-67-7			Х	Х
	EPA 7196A	Chromium (VI)	18540-29-9	Х	Х	Х	Х
Organochlorine	EPA 8081A	2,4-DDD	53-19-0			Х	Х
Pesticides		2,4-DDE	3424-82-6			Х	Х
		4,4-DDD	72-54-8			Х	Х
		4,4-DDE	72-55-9			Х	Х
		4,4-DDT	50-29-3			Х	Х
		Aldrin	309-00-2			Х	Х
		alpha-BHC	319-84-6		Х	Х	Х
		alpha-Chlordane	5103-71-9			Х	Х

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 3 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Organochlorine	EPA 8081A	beta-BHC	319-85-7	Х	X	X	X
Pesticides		Chlordane	57-74-9		1	Х	Х
(continued)		delta-BHC	319-86-8		Х	Х	Х
		Dieldrin	60-57-1			Х	Х
		Endosulfan I	959-98-8			Х	Х
		Endosulfan II	33213-65-9			Х	Х
		Endosulfan sulfate	1031-07-8			Х	Х
		Endrin	72-20-8			Х	Х
		Endrin aldehyde	7421-93-4			Х	Х
		Endrin ketone	53494-70-5			Х	Х
		gamma-BHC (Lindane)	58-89-9		Х	Х	Х
		gamma-Chlordane	5103-74-2			Х	Х
		Heptachlor	76-44-8		Х	Х	Х
		Heptachlor epoxide	1024-57-3			Х	Х
		Methoxychlor	72-43-5			Х	Х
		Toxaphene	8001-35-2			Х	Х
Polynuclear	EPA 8310 <sup>1</sup>	Acenaphthene	83-32-9			Х	Х
Aromatic		Acenaphthylene	208-96-8			Х	Х
Hydrocarbons		Anthracene	120-12-7			Х	Х
		Benzo(a)anthracene	56-55-3			Х	Х
		Benzo(a)pyrene	50-32-8	Х		Х	Х
		Benzo(b)fluoranthene	205-99-2			Х	Х
		Benzo(g,h,i)perylene	191-24-2			Х	Х
		Benzo(k)fluoranthene	207-08-9			Х	Х
		Chrysene	218-01-9			Х	Х
		Dibenzo(a,h)anthracene	53-70-3			Х	Х
		Indeno(1,2,3-cd)pyrene	193-39-5			Х	Х
		Phenanthrene	85-01-8			Х	Х
		Pyrene	129-00-0			Х	Х
Semivolatile	EPA 8270C <sup>2</sup>	1,2,4,5-Tetrachlorobenzene	95-94-3			Х	Х
Organic		1,2-Diphenylhydrazine	122-66-7			Х	Х
Compounds		1,4-Dioxane	123-91-1		Х	Х	Х
		2,2'/4,4'-Dichlorobenzil	3457-46-3			Х	Х
		2,4,5-Trichlorophenol	95-95-4			Х	Х
		2,4,6-Trichlorophenol	88-06-2			Х	Х
		2,4-Dichlorophenol	120-83-2			Х	Х
		2,4-Dimethylphenol	105-67-9			Х	Х
		2,4-Dinitrophenol	51-28-5			Х	Х

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 4 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Semivolatile	EPA 8270C <sup>2</sup>	2,4-Dinitrotoluene	121-14-2			X	Х
Organic		2,6-Dinitrotoluene	606-20-2			Х	Х
Compounds		2-Chloronaphthalene	91-58-7			Х	Х
(continued)		2-Chlorophenol	95-57-8			Х	Х
		2-Methylnaphthalene	91-57-6			Х	Х
		2-Nitroaniline	88-74-4			Х	Х
		2-Nitrophenol	88-75-5			Х	Х
		3,3-Dichlorobenzidine	91-94-1			Х	Х
		3-Nitroaniline	99-09-2			Х	Х
		4,4'-Dichlorobenzil	3457-46-3			Х	Х
		4-Bromophenyl phenyl ether	101-55-3			Х	Х
		4-Chloro-3-methylphenol	59-50-7			Х	Х
		4-Chlorophenyl phenyl ether	7005-72-3			Х	Х
		4-Chlorothioanisole	123-09-1			Х	Х
		4-Chlorothiophenol	106-54-7			Х	Х
		4-Nitroaniline	100-01-6			Х	Х
		4-Nitrophenol	100-02-7			Х	Х
		Acenaphthene	83-32-9			Х	Х
		Acenaphthylene	208-96-8			Х	Х
		Acetophenone	98-86-2			Х	Х
		Aniline	62-53-3			Х	Х
		Anthracene	120-12-7			Х	Х
		Azobenzene	103-33-3			Х	Х
		Benzo(a)anthracene	56-55-3			Х	Х
		Benzo(a)pyrene	50-32-8	Х		Х	Х
		Benzo(b)fluoranthene	205-99-2			Х	Х
		Benzo(g,h,i)perylene	191-24-2			Х	Х
		Benzo(k)fluoranthene	207-08-9			Х	Х
		Benzoic acid	65-85-0			Х	Х
		Benzyl alcohol	100-51-6			Х	Х
		bis(2-Chloroethoxy)methane	111-91-1			Х	Х
		bis(2-Chloroethyl) ether	111-44-4			Х	Х
		bis(2-Chloroisopropyl) ether	108-60-1			Х	Х
		bis(2-Ethylhexyl) phthalate	117-81-7		Х	Х	Х
		bis(Chloromethyl) ether	542-88-1			Х	Х
		bis(p-Chlorophenyl) sulfone	80-07-9			Х	Х
		bis(p-Chlorophenyl)disulfide	1142-19-4			Х	Х
		Butylbenzyl phthalate	85-68-7			Х	Х

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 5 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Semivolatile	EPA 8270C <sup>2</sup>	Carbazole	86-74-8			Х	Х
Organic		Chrysene	218-01-9			Х	Х
Compounds		Dibenzo(a,h)anthracene	53-70-3			Х	Х
(continued)		Dibenzofuran	132-64-9			Х	Х
		Dichloromethyl ether	542-88-1			Х	Х
		Diethyl phthalate	84-66-2			Х	Х
		Dimethyl phthalate	131-11-3			Х	Х
		Di-n-butyl phthalate	84-74-2			Х	Х
		Di-n-octyl phthalate	117-84-0			Х	Х
		Diphenyl disulfide	882-33-7			Х	Х
		Diphenyl sulfide	139-66-2			Х	Х
		Diphenyl sulfone	127-63-9			Х	Х
		Fluoranthene	206-44-0			Х	Х
		Fluorene	86-73-7			Х	Х
		Hexachlorobenzene	118-74-1	Х		Х	Х
		Hexachlorobutadiene	87-68-3			Х	Х
		Hexachlorocyclopentadiene	77-47-4			Х	Х
		Hexachloroethane	67-72-1			Х	Х
		Hydroxymethyl phthalimide	118-29-6			Х	Х
		Indeno(1,2,3-cd)pyrene	193-39-5			Х	Х
		Isophorone	78-59-1			Х	Х
		m,p-Cresol	106-44-5			Х	Х
		Naphthalene	91-20-3		Х	Х	Х
		Nitrobenzene	98-95-3			Х	Х
		N-nitrosodi-n-propylamine	621-64-7			Х	Х
		N-nitrosodiphenylamine	86-30-6			Х	Х
		o-Cresol	95-48-7			Х	Х
		Octachlorostyrene	29082-74-4			Х	Х
		p-Chloroaniline (4-Chloroaniline)	106-47-8			Х	Х
		p-Chlorobenzenethiol	106-54-7			Х	Х
		Pentachlorobenzene	608-93-5			Х	Х
		Pentachlorophenol	87-86-5			Х	Х
		Phenanthrene	85-01-8			Х	Х
		Phenol	108-95-2			Х	Х
		Phthalic acid	88-99-3			Х	Х
		Pyrene	129-00-0			Х	Х
		Pyridine	110-86-1			Х	Х
		Thiophenol	108-98-5			Х	Х
		Tentatively Identified Compounds (TICs)				Х	Х

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 6 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Volatile	EPA 8260B	1,1,1,2-Tetrachloroethane	630-20-6			X	X
Organic		1,1,1-Trichloroethane	71-55-6			Х	Х
Compounds		1,1,2,2-Tetrachloroethane	79-34-5			Х	Х
		1,1,2-Trichloroethane	79-00-5			Х	Х
		1,1-Dichloroethane	75-34-3			Х	Х
		1,1-Dichloroethene	75-35-4		Х	Х	Х
		1,1-Dichloropropene	563-58-6			Х	Х
		1,2,3-Trichlorobenzene	87-61-6			Х	Х
		1,2,3-Trichloropropane	96-18-4			Х	Х
		1,2,4-Trichlorobenzene	120-82-1			Х	Х
		1,2,4-Trimethylbenzene	95-63-6			Х	Х
		1,2-Dichlorobenzene	95-50-1		Х	Х	Х
		1,2-Dichloroethane	107-06-2			Х	Х
		1,2-Dichloroethene	540-59-0			Х	Х
		1,2-Dichloropropane	78-87-5			Х	Х
		1,3,5-Trichlorobenzene	108-70-3			Х	Х
		1,3,5-Trimethylbenzene	108-67-8			Х	Х
		1,3-Dichlorobenzene	541-73-1			Х	Х
		1,3-Dichloropropene	542-75-6			Х	Х
		1,3-Dichloropropane	142-28-9			Х	Х
		1,4-Dichlorobenzene	106-46-7		Х	Х	Х
		2,2-Dichloropropane	594-20-7			Х	Х
		2,2-Dimethylpentane	590-35-2			Х	X
		2,2,3-Trimethylbutane	464-06-2			Х	Х
		2,3-Dimethylpentane	565-59-3			Х	Х
		2,4-Dimethylpentane	108-08-7			Х	Х
		2-Chlorotoluene	95-49-8			Х	Х
		2-Hexanone	591-78-6			Х	Х
		2-Methylhexane	591-76-4			Х	Х
		2-Nitropropane	79-46-9			Х	Х
		3,3-Dimethylpentane	562-49-2			Х	Х
		3-Ethylpentane	617-78-7			Х	Х
		3-Methylhexane	589-34-4			Х	Х
		4-Chlorobenzene	108-90-7			Х	Х
		4-Chlorotoluene	106-43-4			Х	Х
		4-Methyl-2-pentanone (MIBK)	108-10-1			Х	Х
		Acetone	67-64-1			Х	Х
		Acetonitrile	75-05-8			Х	Х

#### TABLE 1 PROJECT LIST OF ANALYTES – SOIL (Page 7 of 8)

				Tron	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Volatile	EPA 8260B	Benzene	71-43-2	Х	Х	X	X
Organic		Bromobenzene	108-86-1			Х	Х
Compounds		Bromodichloromethane	75-27-4		Х	Х	Х
(continued)		Bromoform	75-25-2		Х	Х	Х
		Bromomethane	74-83-9		Х	Х	Х
		Carbon disulfide	75-15-0			Х	Х
		Carbon tetrachloride	56-23-5		Х	Х	Х
		Chlorobenzene	108-90-7	Х	Х	Х	Х
		Chlorobromomethane	74-97-5			Х	Х
		Chlorodibromomethane	124-48-1			Х	Х
		Chloroethane	75-00-3			Х	Х
		Chloroform	67-66-3	Х	Х	Х	Х
		Chloromethane	74-87-3		Х	Х	Х
		cis-1,2-Dichloroethene	156-59-2			Х	Х
		cis-1,3-Dichloropropene	10061-01-5			Х	Х
		Cymene (Isopropyltoluene)	99-87-6			Х	Х
		Dibromochloroethane	73506-94-2			Х	Х
		Dibromochloromethane	124-48-1		Х	Х	Х
		Dibromochloropropane	96-12-8			Х	Х
		Dibromomethane	74-95-3			Х	Х
		Dichloromethane (Methylene chloride)	75-09-2	Х		Х	Х
		Dimethyldisulfide	624-92-0			Х	Х
		Ethanol	64-17-5			Х	Х
		Ethylbenzene	100-41-4			Х	Х
		Freon-11 (Trichlorofluoromethane)	75-69-4		Х	Х	Х
		Freon-113 (1,1,2-Trifluoro-1,2,2-trichloroethane)	76-13-1			Х	Х
		Freon-12 (Dichlorodifluoromethane)	75-71-8			Х	Х
		Heptane	142-82-5			Х	Х
		Isoheptane	31394-54-4			Х	Х
		Isopropylbenzene	98-82-8			Х	Х
		m,p-Xylene	mp-XYL			Х	X
		Methyl ethyl ketone (2-Butanone)	78-93-3			Х	Х
		Methyl iodide	74-88-4			Х	Х
		MTBE (Methyl tert-butyl ether)	1634-04-4			Х	Х
		n-Butyl benzene	104-51-8			Х	Х
		n-Propylbenzene	103-65-1			Х	Х
		Nonanal	124-19-6			Х	Х
		o-Xylene	95-47-6			Х	Х

#### TABLE 1 **PROJECT LIST OF ANALYTES – SOIL** (Page 8 of 8)

				Trone	ox SRC	Soil Samp	le Analysis
Parameter of	Analytical		CAS		Ground-	Surface	Subsurface
Interest	Method	Compound List	Number	Soil	water	(0 ft bgs)	(10 ft bgs)
Volatile	EPA 8260B	sec-Butylbenzene	135-98-8			Х	Х
Organic		Styrene	100-42-5			Х	Х
Compounds		tert-Butyl benzene	98-06-6			Х	Х
(continued)		Tetrachloroethene	127-18-4		Х	Х	Х
		Toluene	108-88-3			Х	Х
		trans-1,2-Dichloroethene	156-60-5			Х	Х
		trans-1,3-Dichloropropene	10061-02-6			Х	Х
		Trichloroethene	79-01-6		Х	Х	Х
		Vinyl acetate	108-05-4			Х	Х
		Vinyl chloride	75-01-4			Х	Х
		Xylenes (total)	1330-20-7			Х	Х
		Tentatively Identified Compounds (TICs)				Х	Х
Total Petroleum	EPA 8015	Diesel	64742-46-7	Х		Х	Х
Hydrocarbons		Gasoline	8006-61-9			Х	Х
		Grease	68153-81-1			Х	Х

Notes:

The laboratory will be instructed to report the top 25 Tentatively Identified Compounds (TICs) under method 8260B and 8270C. <sup>1</sup>For polynuclear aromatic hydrocarbons, Method 8270C is the primary analytical method, but Method 8310 may be used if necessary.

<sup>2</sup>Method 3540 for extraction and Method 3640 for cleanup are to be used as appropriate.

FIGURES





