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NAS PENSACOLA
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TECHNICAL MEMORANDUM FOR EVALUATION OF SOIL CONCENTRATIONS SITE 38 NAS PENSACOLA FL

8/13/2003

ENSAFE/ALLEN AND HOSHALL

TECHNICAL MEMORANDUM
EVALUATION OF SOIL CONCENTRATIONS

SITE 38
NAS PENSACOLA
PENSACOLA, FLORIDA

SOUTHNAVFACENGCOM
CONTRACT NO.: N62467-89-D0318
CTO-059

Prepared for:

Department of the Navy
Southern Division
Naval Facilities Engineering Command
North Charleston, South Carolina

Prepared by:

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August 13, 2003

Technical Memorandum
Naval Air Station – Pensacola, Florida

To: NAS Pensacola Partnering Team
From: EnSafe, Inc.
Date: August 13, 2003
Subject: Evaluation of Soil Concentrations for Site 38

In response to comments from the NAS Pensacola Tier I Partnering Team, EnSafe has evaluated soil concentrations for Site 38 to develop remedial volumes, using the process discussed below.

1.0 Soil Evaluation Process

To evaluate the extent of soil contamination at Site 38, detected surface and subsurface soil concentrations for both Buildings 71 and 604 were first compared to Soil Cleanup Target Levels (SCTLs) for residential and industrial use scenarios, prepared by the Florida Department of Environmental Protection (FDEP). Concentrations exceeding their respective SCTLs were listed as Chemicals of Potential Concern (COPC) and evaluated further.

The COPCs were then compared to three times the SCTL (3X SCTL) for both residential and industrial scenarios to determine whether the location is a "hot spot", which is discussed further in Section 2.1.

In addition for each COPC, each data set was evaluated to determine whether a 95% Upper Confidence Level (UCL) could be calculated. The 95% UCL is used to determine the average contaminant concentration over an entire area or "site wide", because an individual's risk of exposure to contamination is likely to be over the entire area. To calculate the 95% UCL, the data set must have a minimum of 10 samples and less than 30% of the samples should be non-detects. The calculated 95% UCL were then compared to their respective SCTLs. If the 95% UCL exceeded its respective SCTLs, then it was identified as a chemical of concern (COC).

When the 95% UCL could not be calculated, the COPCs were evaluated using the true averages.

The calculated true averages were compared to their respective SCTLs. If the true average exceeded its respective SCTLs, then it was identified as a COC.

All soil detections were also compared to Leachability Criteria for Groundwater, prepared by FDEP, to determine the likelihood of contaminants leaching into the groundwater.

Figures 1 and 2 are flow diagrams summarizing the evaluation process for soil detections.

1.1 Comparison to Soil Cleanup Target Levels (SCTLs)

Soil sampling during the Remedial Investigation (RI) identified multiple contaminants above Preliminary Remedial Goals (PRGs) in surface and subsurface soil. To evaluate the extent of soil contamination at Site 38, surface and subsurface soil concentrations for both Buildings 604 and 71 were compared to SCTLs prepared by FDEP under residential and industrial scenarios. This comparison is included in Appendix A. Constituents with concentrations exceeding SCTLs were retained as COPCs, and are summarized in Table 1.

Table 1
Chemicals of Potential Concern – Site 38

Building 71	**Building 604**
Surface Soil	
Arsenic	Arsenic
Chromium	Copper
Copper	Iron
Vanadium	Lead
Aroclor-1254	Vanadium
Benzo(a)pyrene	Aroclor-1260
Dibenz(a,h)anthracene	Benzo(a)anthracene
	Benzo(a)pyrene
	Benzo(b)fluoranthene
	Dieldrin
Subsurface Soil	
Arsenic	Arsenic
Chromium	Copper
Copper	Iron
Lead	Lead
Aroclor-1254	Vanadium
Benzo(a)pyrene	Benzo(a)anthracene
Benzo(b)fluoranthene	Benzo(a)pyrene
Dibenz(a,h)anthracene	Benzo(b)fluoranthene
	Dibenz(a,h)anthracene
	Indeno(1,2,3-cd)pyrene

Figure 1 – Flow Diagram for SCTL Evaluation

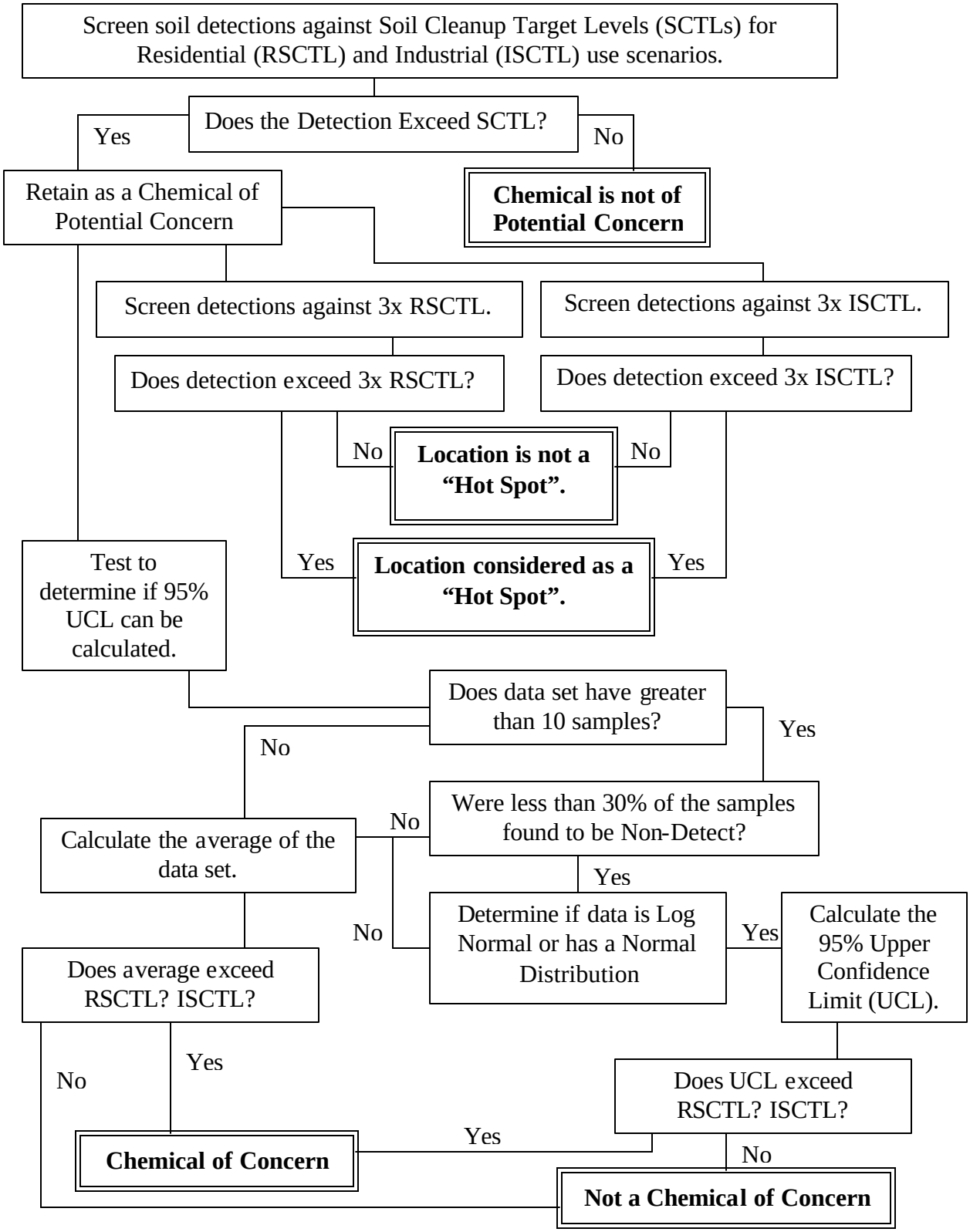
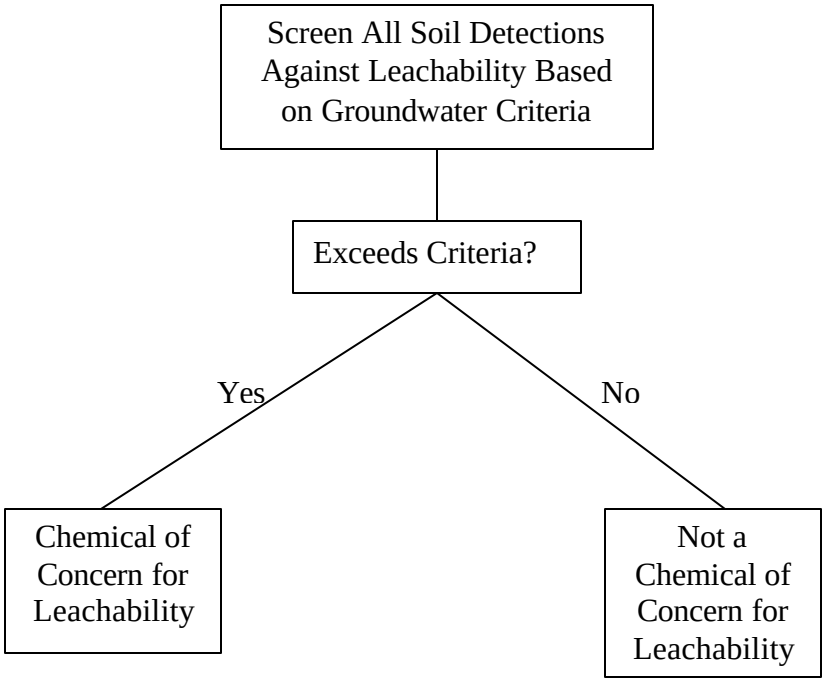


Figure 2 – Flow Diagram for Leachability Evaluation



1.2 Hot-Spot / Acute Toxicity Evaluation

For each COPC, the data set was compared to 3X SCTLs to determine if the area is a "hot spot" – defined as 3X SCTL. Both detected concentrations and non-detects were compared to 3X SCTLs using one-half the detection limit for non-detects. Non-detects were included in this comparison, because one-half the detection limit for some samples exceeded their respective 3X SCTLs. Hot spots must be evaluated to address the risk of exposure due to acute exposures from high concentrations.

Several compounds are excluded from the 3X SCTL criteria: barium, cadmium, copper, cyanide, fluoride, nickel, phenol, and vanadium. Residential SCTLs (RSCTLs) for these compounds are based on acute toxicity to children; therefore, they cannot be exceeded at any point onsite where children might be exposed. For these cases, the detected concentration cannot exceed the RSCTL. It is assumed that, under an industrial scenario, the Industrial SCTL (ISCTL) can be applied for these compounds using 3 times the ISCTL (3X ISCTL) since children would not be an appropriate endpoint for an industrial setting.

Table 2 summarizes samples with constituents exceeding 3X SCTL and Acute Toxicity levels.

Table 2
Samples and Parameters Exceeding 3X SCTL or Acute Toxicity

Sample ID	Parameter	Exceeds 3X RSCTL or Acute Toxicity	Exceeds 3X ISCTL
Building 71 – Surface Soil			
036S080S02	Copper	X	
038S000102	Vanadium	X	
038S000301	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S000402	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S000501	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001301	Chromium	X	
038S001401	Chromium	X	
	Copper	X	
038S001601	Vanadium	X	
	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001701	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001801	Aroclor-1254	X	X
	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	

Table 2
Samples and Parameters Exceeding 3X SCTL or Acute Toxicity

Sample ID	Parameter	Exceeds 3X RSCTL or Acute Toxicity	Exceeds 3X ISCTL
038S001901	Dibenz(a,h)anthracene	X	
038S001902	Benzo(a)pyrene	X	
038S002201	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S002501	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S002702	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003201	Arsenic	X	
	Copper	X	
	Benzo(a)pyrene	X	
038S003301	Arsenic	X	
	Vanadium	X	
038S003401	Vanadium	X	
	Dibenz(a,h)anthracene	X	
038S0I1001	Benzo(a)pyrene	X	X
	Dibenz(a,h)anthracene	X	X
038S0I1002	Benzo(a)pyrene	X	X
	Dibenz(a,h)anthracene	X	X
038S0S2301	Benzo(a)pyrene	X	X
	Dibenz(a,h)anthracene	X	X
038S0S2302	Benzo(a)pyrene	X	X
	Dibenz(a,h)anthracene	X	X
038S0T0501	Benzo(a)pyrene	X	X
	Dibenz(a,h)anthracene	X	X
038S0T0502	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	X
Building 71 – Subsurface Soil			
038S000106	Benzo(a)pyrene	X	
038S000303	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
	Dibenz(a,h)anthracene	X	
038S000305	Dibenz(a,h)anthracene	X	
038S000503	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S000505	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001203	Copper	X	
	Benzo(a)pyrene	X	
038S001204	Arsenic	X	X
038S001303	Arsenic	X	
038S001304	Arsenic	X	
038S001403	Copper	X	
038S001603	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001605	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001703	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001705	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S001803	Aroclor-1254	X	X
	Benzo(a)pyrene	X	

Table 2
Samples and Parameters Exceeding 3X SCTL or Acute Toxicity

Sample ID	Parameter	Exceeds 3X RSCTL or Acute Toxicity	Exceeds 3X ISCTL
	Dibenz(a,h)anthracene	X	
038S001805	Aroclor-1254	X	X
	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S002203	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S002403	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S002503	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S002704	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003203	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003205	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003403	Dibenz(a,h)anthracene	X	
	Benzo(a)pyrene	X	
	Building 604 – Surface Soil		
036S074N02	Arsenic	X	
	Copper	X	
036S074W02	Arsenic	X	
	Copper	X	
	Benzo(a)pyrene	X	
036S075C02	Benzo(a)pyrene	X	
036S075E02	Arsenic	X	
	Copper	X	
036S077W02	Benzo(a)pyrene	X	
036S078E02	Copper	X	
036S078W02	Vanadium	X	
038S002601	Arsenic	X	
	Vanadium	X	
038S002801	Benzo(a) pyrene	X	
038S003501	Arsenic	X	X
	Vanadium	X	
	Benzo(a)pyrene	X	
038S003601	Arsenic	X	
	Vanadium	X	
038S003701	Vanadium	X	
038S004102	Copper	X	
038S0T0101	Arsenic	X	
	Vanadium	X	
	Benzo(a) pyrene	X	X
038S0T0102	Benzo(a) pyrene	X	X
038S0T0201	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T0301	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T0302	Benzo(a)pyrene	X	X
038S0T0401	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T0402	Benzo(a) pyrene	X	X
038S0T0601	Benzo(a) pyrene	X	X

Table 2
Samples and Parameters Exceeding 3X SCTL or Acute Toxicity

Sample ID	Parameter	Exceeds 3X RSCTL or Acute Toxicity	Exceeds 3X ISCTL
038S0T0602	Benzo(a) pyrene	X	X
038S0T0701	Benzo(a) pyrene	X	X
038S0T0702	Benzo(a) pyrene	X	X
038S0T0801	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T0802	Benzo(a) pyrene	X	X
038S0T0901	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T0902	Benzo(a) pyrene	X	X
038S0T1001	Benzo(a) pyrene	X	X
038S0T1002	Benzo(a) pyrene	X	X
038S0T1101	Arsenic	X	
	Copper	X	
	Benzo(a) pyrene	X	X
038S0T1102	Benzo(a) pyrene	X	X
038S0T1201	Benzo(a) pyrene	X	X
038S0T1202	Benzo(a) pyrene	X	X
038S0T1301	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T1302	Benzo(a) pyrene	X	X
038S0T1401	Arsenic	X	
	Vanadium	X	
	Benzo(a) pyrene	X	X
038S0T1402	Benzo(a) pyrene	X	X
038S0T1501	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T1502	Benzo(a) pyrene	X	X
038S0T1601	Arsenic	X	
	Vanadium	X	
	Benzo(a) pyrene	X	X
038S0T1602	Benzo(a) pyrene	X	X
038S0T1701	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T1702	Benzo(a) pyrene	X	X
038S0T1801	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T1802	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T1901	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T1902	Benzo(a) pyrene	X	X
038S0T2001	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T2002	Benzo(a) pyrene	X	X
038S0T2201	Benzo(a) pyrene	X	X
038S0T2202	Benzo(a) pyrene	X	X
038S0T2301	Arsenic	X	

Table 2
Samples and Parameters Exceeding 3X SCTL or Acute Toxicity

Sample ID	Parameter	Exceeds 3X RSCTL or Acute Toxicity	Exceeds 3X ISCTL
	Vanadium	X	
	Benzo(a) pyrene	X	X
038S0T2302	Benzo(a) pyrene	X	X
038S0T2501	Arsenic	X	
	Vanadium	X	
	Benzo(a) pyrene	X	X
038S0T2502	Benzo(a) pyrene	X	
038S0T2601	Benzo(a) pyrene	X	
038S0T2602	Benzo(a) pyrene	X	X
038S0T2701	Benzo(a)pyrene	X	X
038S0T2702	Benzo(a) pyrene	X	X
038S0T2801	Benzo(a) pyrene	X	
038S0T2802	Benzo(a) pyrene	X	X
038S0T2901	Benzo(a) pyrene	X	X
038S0T2902	Benzo(a) pyrene	X	X
038S0T3002	Benzo(a) pyrene	X	X
038S0T3101	Copper	X	
	Benzo(a) pyrene	X	X
038S0T3202	Benzo(a) pyrene	X	X
038S0T3301	Benzo(a) pyrene	X	
038S0T3302	Benzo(a) pyrene	X	X
038S0T3401	Benzo(a) pyrene	X	X
038S0T3402	Benzo(a) pyrene	X	X
038S0T3501	Benzo(a) pyrene	X	X
038S0T3502	Benzo(a) pyrene	X	X
038S0T3601	Benzo(a) pyrene	X	X
038S0T3602	Benzo(a) pyrene	X	X
038S0T3701	Benzo(a) pyrene	X	X
038S0T3702	Benzo(a) pyrene	X	X
038S0T3801	Benzo(a) pyrene	X	X
038S0T3901	Vanadium	X	
	Arsenic	X	
	Benzo(a) pyrene	X	X
038S0T4001	Benzo(a)pyrene	X	X
038S0T4002	Benzo(a) pyrene	X	
038S0T4101	Copper	X	
	Benzo(a) pyrene	X	X
038S0T4102	Benzo(a) pyrene	X	X
038S0T4201	Copper	X	
	Benzo(a)anthracene	X	
	Benzo(a) pyrene	X	X
	Benzo(b)fluoranthene	X	
Building 604 – Subsurface Soil			
036S074C04	Benzo(a)anthracene	X	
	Benzo(a)pyrene	X	X
	Benzo(b)fluoranthene	X	
	Dibenz(a,h)anthracene	X	
036S075E04	Arsenic	X	
036S075E06	Copper	X	
	Vanadium	X	
038S002603	Arsenic	X	
	Copper	X	
	Dibenz(a,h)anthracene	X	

Table 2
Samples and Parameters Exceeding 3X SCTL or Acute Toxicity

Sample ID	Parameter	Exceeds 3X RSCTL or Acute Toxicity	Exceeds 3X ISCTL
038S002605	Arsenic	X	
038S002803	Benzo(a)pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003503	Arsenic	X	
	Benzo(a) pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003603	Arsenic	X	
	Benzo(a) pyrene	X	
	Dibenz(a,h)anthracene	X	
038S003703	Benzo(a) pyrene	X	
	Dibenz(a,h)anthracene	X	
038S004204	Dibenz(a,h)anthracene	X	

Notes:
Non-detect samples exceeding 3X SCTL are noted in blue. One-half the detection limit was used for screening.

Figures 3 thru 6 show the above listed sampling locations and their respective exceedances for both Buildings 71 and 604 areas.

1.3 95% Upper Confidence Level Evaluation

For the COPCs listed in Table 1, each data set was evaluated to determine if a 95% UCL could be calculated. To calculate the 95% UCL for a data set, the data set must have more than 10 samples and less than 30% of the data set should be non-detects. Table 3 summarizes each COPC, number of samples, and percentage of non-detects.

Table 3
Chemicals of Potential Concern and Percentages of Non-detects – Site 38

Building 71			Building 604		
Parameter	**# of Samples**	**% of Non-detects**	**Parameter**	**# of Samples**	**% of Non-detects**
Surface Soil					
Arsenic	37	43%	Arsenic	100	61%
Chromium	37	5%	Copper	100	15%
Copper	37	5%	Iron	100	1%
Vanadium	37	51%	Lead	100	11%
Aroclor-1254	34	91%	Vanadium	107	40%
Benzo(a)pyrene	37	76%	Aroclor-1260	51	94%
Dibenz(a,h)anthracene	37	89%	Benzo(a)anthracene	27	91%
			Benzo(a)pyrene	27	89%
			Benzo(b)fluoranthene	27	89%
			Dieldrin	51	80%

Table 3
Chemicals of Potential Concern and Percentages of Non-detects – Site 38

Building 71			Building 604		
Parameter	**# of Samples**	**% of Non-detects**	**Parameter**	**# of Samples**	**% of Non-detects**
Subsurface Soil					
Arsenic	42	57%	Arsenic	27	37%
Chromium	42	10%	Copper	27	0%
Copper	42	10%	Iron	27	0%
Lead	42	0%	Lead	27	0%
Aroclor-1254	42	90%	Vanadium	27	44%
Benzo(a)pyrene	42	86%	Benzo(a)anthracene	27	89%
Benzo(b)fluoranthene	42	71%	Benzo(a)pyrene	27	85%
Dibenz(a,h)anthracene	42	88%	Benzo(b)fluoranthene	27	81%
			Dibenz(a,h)anthracene	27	96%
			Indeno(1,2,3-cd)pyrene	27	85%

Based on the 30% non-detects restriction, the 95% UCL could only be calculated for the following data sets: chromium, copper, iron, and lead. However, lead is not included in the 95% UCL calculations as discussed further in Section 2.5.

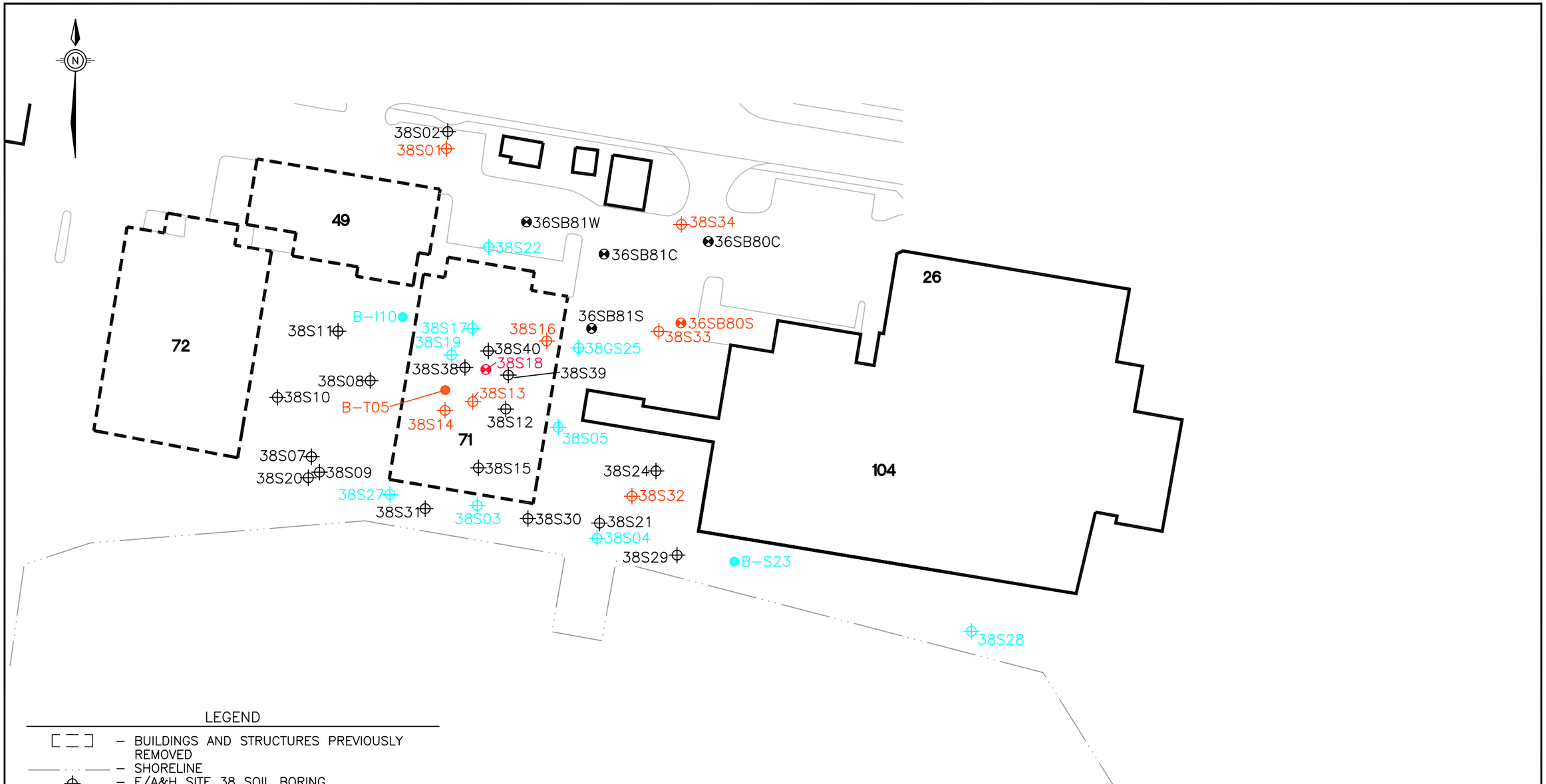
UCL Calculation

The 95% UCLs were calculated using *Pro UCL Version 2.0*. For every data set, estimated or "J" qualified data were considered as hits. The reported concentrations were used for estimated data and detected chemicals. Non-detects are samples not detected above the standard quantitation limit (SQL). If the chemical was not detected, one-half the SQL was used for the data set.

Using *Pro UCL*, each data set was tested for normal and lognormal distribution. The 95% UCL is calculated based on the type of distribution the data set is. Only two data sets had lognormal distribution and no data sets had normal distribution. Table 4 summarizes each data set and whether or not the data set was determined to be normal or lognormal.

Table 4
Normal and Lognormal Distribution Testing – Site 38

Building 71			Building 604		
Parameter	**Normal**	**Lognormal**	**Parameter**	**Normal**	**Lognormal**
Surface Soil					
Chromium	No	Yes	Copper	No	No
Copper	No	No	Iron	No	Yes
Subsurface Soil					
Chromium	No	No	Copper	No	No
Copper	No	No	Iron	No	No



LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- ⊕ – E/A&H SITE 38 SOIL BORING
- ⊗ – IWTP SEWERLINE STUDY SOIL BORING
- ● – EPA SOIL BORING
- ● – EXCEEDS 3X ISCTL
- ● – EXCEEDS 3X RSCTL OR ACUTE TOXICITY
- ● – NON-DETECT, HOWEVER ONE-HALF THE DETECTION LIMIT EXCEEDS EITHER 3X RSCTL AND/OR 3X ISCTL
- 3X RSCTL – 3X RESIDENTIAL SOIL CLEANUP TARGET LEVEL
- 3X ISCTL – 3X INDUSTRIAL SOIL CLEANUP TARGET LEVEL

NOTES: BORING 38S28 IS INCLUDED WITH BUILDING 604.

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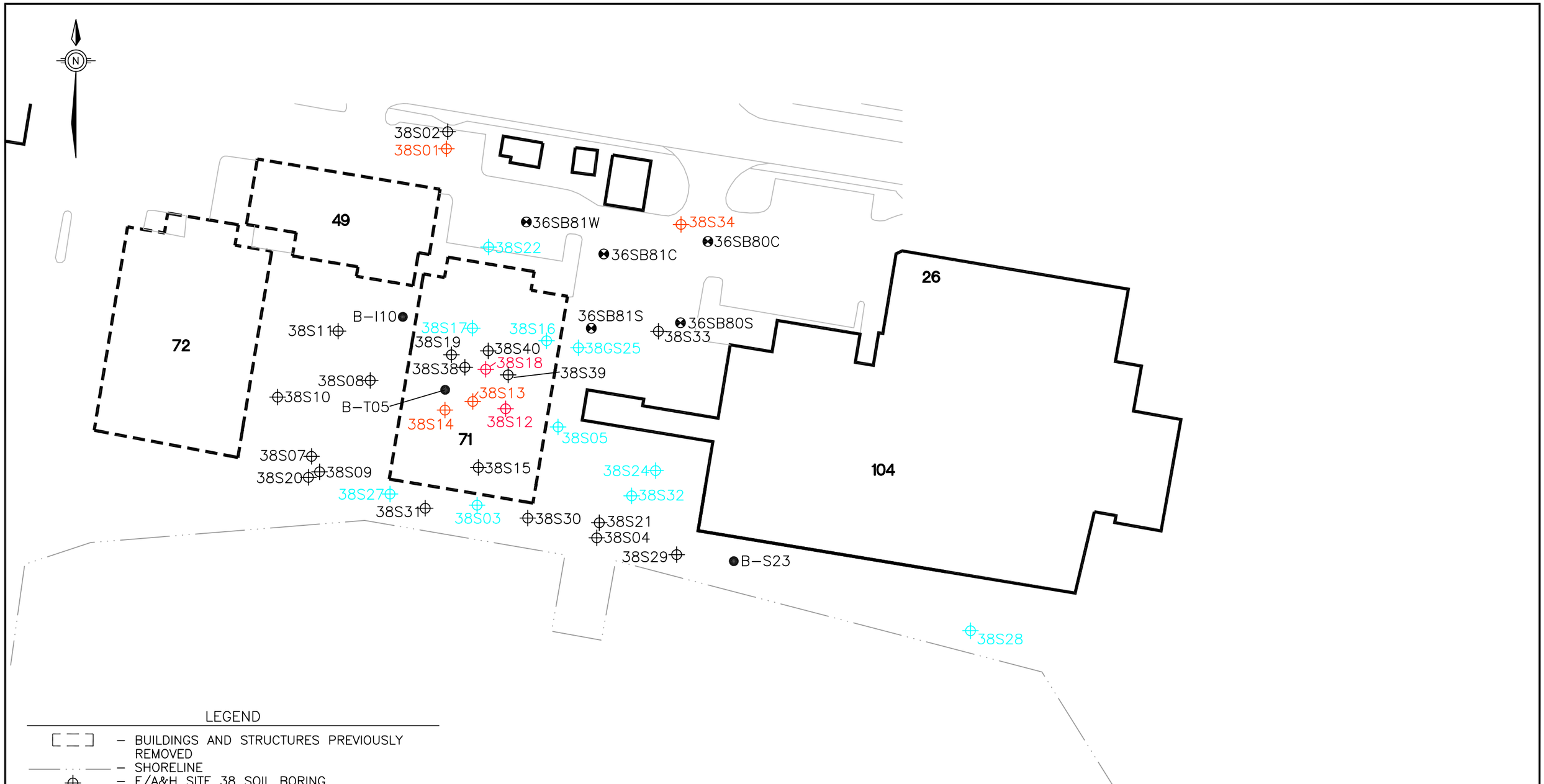
FIGURE 3
BUILDING 71
3X RSCTL/ACUTE TOXICITY
AND 3X ISCTL EXCEEDANCES
SURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001G006



LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- ⊕ – E/A&H SITE 38 SOIL BORING
- ⊗ – IWTP SEWERLINE STUDY SOIL BORING
- ● – EPA SOIL BORING
- ● – EXCEEDS 3X ISCTL
- ● – EXCEEDS 3X RSCTL OR ACUTE TOXICITY
- ● – NON-DETECT, HOWEVER ONE-HALF THE DETECTION LIMIT EXCEEDS EITHER 3X RSCTL AND/OR 3X ISCTL
- 3X RSCTL – 3X RESIDENTIAL SOIL CLEANUP TARGET LEVEL
- 3X ISCTL – 3X INDUSTRIAL SOIL CLEANUP TARGET LEVEL

NOTES: BORING 38S28 IS INCLUDED WITH BUILDING 604.

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FIGURE 4
BUILDING 71
3X RSCTL/ACUTE TOXICITY
AND 3X ISCTL EXCEEDANCES
SUBSURFACE SOIL

DWG DATE: 16JUL03 | NAME: 0059001G007

LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – EXCEEDS 3X ISCTL
- – EXCEEDS 3X RSCTL OR ACUTE TOXICITY
- – NON-DETECT, HOWEVER ONE-HALF THE DETECTION LIMIT EXCEEDS EITHER 3X RSCTL AND/OR 3X ISCTL
- 3X RSCTL – 3X RESIDENTIAL SOIL CLEANUP TARGET LEVEL
- 3X ISCTL – 3X INDUSTRIAL SOIL CLEANUP TARGET LEVEL

NOTE: BORING 38S28 IS SHOWN ON FIGURES FOR BUILDING 71.

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FIGURE 5
BUILDING 604
3X RSCTL/ACUTE TOXICITY
AND 3X ISCTL EXCEEDANCES
SURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001G008

LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – EXCEEDS 3X ISCTL
- – EXCEEDS 3X RSCTL OR ACUTE TOXICITY
- – NON–DETECT, HOWEVER ONE–HALF THE DETECTION LIMIT EXCEEDS EITHER 3X RSCTL AND/OR 3X ISCTL
- 3X RSCTL – 3X RESIDENTIAL SOIL CLEANUP TARGET LEVEL
- 3X ISCTL – 3X INDUSTRIAL SOIL CLEANUP TARGET LEVEL

NOTE: BORING 38S28 IS SHOWN ON FIGURES FOR BUILDING 71.

Naval Facilities Engineering Command · Southern Division

SITE 38
TECHNICAL MEMORANDUM
NAS PENSACOLA
PENSACOLA, FLORIDA

FIGURE 6
BUILDING 604
3X RSCTL/ACUTE TOXICITY
AND 3X ISCTL EXCEEDANCES
SUBSURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001G009

As shown in Table 4, only chromium for Building 71 in surface soil and iron for Building 604 in surface soil passed lognormal distribution testing. The data distribution sets for copper did not pass normal or lognormal distribution tests. Chromium in subsurface soil for Building 71 and iron in subsurface soil for Building 604 data sets also did not pass normal or lognormal distribution tests. Since these data sets did not pass normal or lognormal distribution tests, the 95% UCLs could not be calculated.

The 95% UCL in surface soil was calculated for chromium at Building 71 and iron at Building 604 surface soil using lognormal distribution, resulting in a 95% UCL of 119.69 milligrams per kilogram (mg/kg) for chromium in surface soil at Building 71 and 9305.28 mg/kg for iron in surface soil at Building 604. Analytical data used for distribution testing and 95% UCL calculations are included in Appendix B. Table 5 is a comparison of the 95% UCLs to their respective SCTLs. Neither of the 95% UCLs exceed their respective RSCTLs and ISCTLs; therefore, they are not chemicals of concern for their respective interval and area.

Table 5
UCL Comparison to SCTLs – Site 38 (mg/kg)

Parameter	RSCTL	ISCTL	95% UCL
Chromium – Bldg 71	210	420	119.69
Iron – Bldg 604	23,000	480,000	9305.28

2.3 Average Concentration Evaluation

For each data set that the 95% UCL could not able to be calculated, true averages were calculated to compare to their respective SCTLs. Data sets were calculated as described for UCLs, using the reported value for detections and one-half the detection limit for non-detects. Table 6 is a comparison of the average concentrations for each data set to their respective SCTLs.

Table 6
Comparison of Average Concentrations to SCTLs – Site 38

Parameter	RSCTL	ISCTL	Average Concentration	Units
Building 71 – Surface Soil				
Arsenic	1.56*	3.7	1.13	mg/kg
Copper	110	76,000	*164.77*	mg/kg
Vanadium	15	7,400	5.01	mg/kg
Aroclor-1254	500	2,100	21.31	µg/kg

Table 6
Comparison of Average Concentrations to SCTLs – Site 38

Parameter	RSCTL	ISCTL	Average Concentration	Units
Benzo(a)pyrene	100	500	*458.95*	µg/kg
Dibenz(a,h)anthracene	100	500	***502.62***	µg/kg
Building 71 – Subsurface Soil				
Arsenic	1.56*	3.7	0.62	mg/kg
Chromium	210	420	42.29	mg/kg
Copper	110	76,000	30.76	mg/kg
Lead	400	920	79.87	mg/kg
Aroclor-1254	500	2,100	35.79	mg/kg
Benzo(a)pyrene	100	500	*302.48*	µg/kg
Benzo(b)fluoranthene	1,400	4,800	307.81	µg/kg
Dibenz(a,h)anthracene	100	500	*281.1*	µg/kg
Building 604 – Surface Soil				
Arsenic	1.56*	3.7	*2.11*	mg/kg
Copper	110	76,000	38	mg/kg
Lead	400	920	82.91	mg/kg
Vanadium	15	7,400	7.23	mg/kg
Aroclor-1260	500	2,100	141	µg/kg
Benzo(a)anthracene	1,400	5,000	*1,461.95*	µg/kg
Benzo(a)pyrene	100	500	***1,461.36***	µg/kg
Benzo(b)fluoranthene	1,400	4,800	*1,461.85*	µg/kg
Dieldrin	70	300	13.25	µg/kg
Building 604 – Subsurface Soil				
Arsenic	1.56*	3.7	1.32	mg/kg
Copper	110	76,000	29.63	mg/kg
Iron	23,000	480,000	2,793.36	mg/kg
Lead	400	900	95.71	mg/kg
Vanadium	15	7,400	2.82	mg/kg
Benzo(a)anthracene	1,400	5,000	390.37	µg/kg
Benzo(a)pyrene	100	500	*210*	µg/kg
Benzo(b)fluoranthene	1,400	4,800	50.59	µg/kg
Dibenz(a,h)anthracene	100	500	*255.37*	µg/kg
Indeno(1,2,3-cd)pyrene	1,500	5,300	261.85	µg/kg

Notes:
* The Background Concentration (1.56 mg/kg) for Arsenic was used because it is greater than the RSCTL (0.8 mg/kg).
mg/kg milligrams per kilogram
µg/kg micrograms per kilogram
Average concentrations exceeding RSCTLs are noted in *italics*.
Average concentrations exceeding RSCTLs and ISCTLs are noted in **bold**.

For Building 71 surface soil, averages for copper and benzo(a)pyrene exceeded their respective RSCTLs. Dibenz(a,h)anthracene exceeded both its RSCTL and ISCTL Benzo(a)pyrene and dibenz(a,h)anthracene averages exceeded their respective RSCTLs in subsurface soil.

For Building 604 surface soil, averages for arsenic, benzo(a)anthracene, and benzo(b)fluoranthene exceeded their respective RSCTLs. Benzo(a)pyrene exceeded both its

RSCTL and ISCTL. For subsurface soil, benzo(a)pyrene and dibenz(a,h)anthracene exceeded their respective RSCTLs.

2.5 Lead Modeling Using Average Concentrations

USEPA has not established a slope factor or a reference dose for lead, so lead was addressed as a special case. The USEPA and the Centers for Disease Control and Prevention (CDC) have determined that childhood lead blood levels (PbB) concentrations at or above 10 micrograms of Pb per deciliter of blood (µg Pb/dL) present risks to children's health. The Integrated Exposure Uptake Biokinetic (IEUBK) model calculates the probability that children's PbB concentrations will exceed 10 µg Pb/dL (http://www.epa.gov/superfund/programs/lead/ieubk.htm). When lead concentrations result in probability greater than 5%, lead is identified as a COC.

USEPA recommends the IEUBK model when assessing lead exposure to estimate the blood lead level of a child receptor. Thus, this model would be applicable to the residential land use scenario. USEPA's IEUBK model (Version 1.0, Build 253) was used to estimate blood lead levels in children assumed to drink groundwater and directly contact soil and dust.

2.5.1 Building 71

Surface Soil

The average surface soil lead concentration was 74.75 mg/kg. The average lead concentration reported in groundwater was 0.0626 mg/L, which exceeds the treatment technique action level (0.015 mg/L). Model variables and a distribution probability plot are shown in Table C-1 and Figure C-1 of Appendix C. As shown on Figure C-1, the geometric mean on the probability density for the age range of 0-84 months was 6.4 µg/dL.

The model predicts lead levels in blood based on lead concentrations in soil, dust, and water and develops a probability density curve for PbB. Based on surface soil lead data for Building 71, the model predicted a geometric mean PbB of 6.4 µg/dL. It also predicted that 17.3% of the lead blood levels would exceed 10 µg/dL. Therefore, lead is identified as a COC for surface soil.

Subsurface Soil

The average subsurface soil lead concentration was 79.87 mg/kg. The average lead concentration reported in groundwater was 0.0626 mg/L, which exceeds the treatment technique action level (0.015 mg/L). Model variables and a distribution probability plot are shown in Table C-2 and Figure C-2 of Appendix C. As shown on Figure C-2, the geometric mean on the probability density for the age range of 0-84 months was 6.5 µg/dL.

Based on subsurface soil lead data for Building 71, the model predicted a geometric mean PbB of 6.5 µg/dL. It also predicted that 17.6% of the lead blood levels would exceed 10 µg/dL. Therefore, lead is identified as a COC for subsurface soil.

2.5.2 Building 604 Area

Surface Soil

The average surface soil lead concentration was 82.91 mg/kg. The average lead concentration reported in groundwater was 0.0409 mg/L, which exceeds the treatment technique action level (0.015 mg/L). Model variables and a distribution probability plot are shown in Table C-3 and Figure C-3 of Appendix C. As shown on Figure C-3, the geometric mean on the probability density for the age range of 0-84 months was 5.0 µg/dL.

Based on subsurface soil lead data for Building 604, the model predicted a geometric mean PbB of 5.0 µg/dL. It also predicted that 7.2% of the lead blood levels would exceed 10 µg/dL. Therefore, lead is identified as a COC for surface soil.

Subsurface Soil

The average subsurface soil lead concentration was 95.71 mg/kg. The average lead concentration reported in groundwater was 0.0409 mg/L, which exceeds the treatment technique action level (0.015 mg/L). Model variables and a distribution probability plot are shown in Table C-4 and Figure C-4 of Appendix C. As shown on Figure C-4, the geometric mean on the probability density for 0-84 months was 5.1 µg/dL.

Based on subsurface soil lead data for Building 604, the model predicted a geometric mean PbB of 5.1 µg/dL. It also predicted that 7.9% of the lead blood levels would exceed 10 µg/dL. Therefore, lead is identified as a COC for subsurface soil.

2.6 Leachability Evaluation

Detected soil concentrations were compared to Leachability Based on Groundwater Criteria, prepared by FDEP, to determine the likelihood of soil contaminants leaching into groundwater through infiltration. Table 7 summarizes detections exceeding leachability criteria.

Table 7
Soil Detections Exceeding Leachability Based on Groundwater Criteria

Sample ID	Parameter	Detection	Leachability Criteria	Units
Building 71 – Surface Soil				
038S0I1001	Chromium	93	38	mg/kg
038S0I1002	Tetrachloroethene	1100	30	µg/kg
038S013A02	Chromium	40.1	38	mg/kg
038S013B02	Chromium	383	38	mg/kg
038S000701	Trichloroethene	110	30	µg/kg
038S000901	Trichloroethene	36	30	µg/kg
038S001001	Chromium	103	38	mg/kg
	Tetrachloroethene	94	30	µg/kg
038S001201	Chromium	80.2	38	mg/kg
038S001301	Chromium	713	38	mg/kg
	Phenol	59	50	µg/kg
	Tetrachloroethene	43	30	µg/kg
	Trichloroethene	34	30	µg/kg
038S001401	Cadmium	18.6	8	mg/kg
	Chloroform	47	30	µg/kg
	Chromium	668	38	mg/kg
	1,2-Dichloroethane	27	10	µg/kg
	2-Methylphenol	340	300	µg/kg
	4-Methylphenol	740	30	µg/kg
	Phenol	990	50	µg/kg
	Tetrachloroethene	370	30	µg/kg
	Trichloroethene	390	30	µg/kg
038S001501	Phenol	130	50	µg/kg
038S001701	Chromium	53.4	38	mg/kg
038S001801	Chromium	291	38	mg/kg
	Phenol	930	50	µg/kg
038S001901	Phenol	370	50	µg/kg
038S001902	Phenol	600	50	µg/kg
038S0T0502	Tetrachloroethene	810	30	µg/kg
	Trichloroethene	200	30	µg/kg

Table 7
Soil Detections Exceeding Leachability Based on Groundwater Criteria

Sample ID	Parameter	Detection	Leachability Criteria	Units
Building 71 – Subsurface Soil				
038S000703	Trichloroethene	79	30	µg/kg
038S000705	Trichloroethene	74	30	µg/kg
038S000803	Trichloroethene	33	30	µg/kg
038S001303	Chromium	553	38	mg/kg
	Trichloroethene	120	30	µg/kg
038S001304	Chromium	296	38	mg/kg
	Trichloroethene	34	30	µg/kg
038S001403	Chloroform	79	30	µg/kg
	Chromium	331	38	mg/kg
	1,2-Dichloroethane	22	10	µg/kg
	4-Methylphenol	580	30	µg/kg
	Phenol	830	50	µg/kg
	Tetrachloroethene	410	30	µg/kg
	Trichloroethene	400	30	µg/kg
038S001405	Chromium	155	38	mg/kg
	4-Methylphenol	190	30	µg/kg
	Phenol	180	50	µg/kg
	Tetrachloroethene	120	30	µg/kg
038S001503	Phenol	110	50	µg/kg
038S001603	Chromium	58.8	38	mg/kg
038S001803	Chromium	48.5	38	mg/kg
038S001805	Chromium	87.8	38	mg/kg
	Phenol	360	50	µg/kg
	Tetrachloroethene	230	30	µg/kg
	Trichloroethene	110	30	µg/kg
Building 604 – Surface Soil				
036S073C02	Methylene chloride	730	20	µg/kg
036S078S02	Acetone	8600	2800	µg/kg
036S078W02	Dieldrin	15	4	µg/kg
038S003701	Dieldrin	5.4	4	µg/kg
038S0T0301	Dieldrin	20	4	µg/kg
038S0T0701	Dieldrin	9	4	µg/kg
038S0T1501	Dieldrin	40	4	µg/kg
038S0T2902	Tetrachloroethene	34	30	µg/kg
038S0T3701	Dieldrin	84	4	µg/kg
038S0T3801	Chromium	48	38	µg/kg
	Dieldrin	5.3	4	µg/kg
038S0T4101	Cadmium	17	8	µg/kg
038S0T4201	Beta-BHC	56	1	µg/kg
	Cadmium	21	8	µg/kg
	Chromium	40	38	µg/kg
	Delta-BHC	300	200	µg/kg
Building 604 – Subsurface Soil				
036S074C04	Benzo(a)anthracene	4500	3200	µg/kg
038S002603	Dieldrin	4.4	5	µg/kg
038S003703	Antimony	6.1	5	mg/kg

Notes:
mg/kg milligrams per kilogram
µg/kg micrograms per kilogram
Leachability criteria for hexavalent chromium was used for evaluating chromium for conservative purposes.

Figures 7 thru 10 show locations exceeding Leachbility Criteria for Buildings 71 and 604 in surface and subsurface soil.

3.0 Scenario Evaluation

Once chemicals of concern were identified by 3X SCTL exceedances, 95% UCLs, averages, and leachability criteria exceedances, the extent of remediation was evaluated. Locations with detections exceeding 3X SCTLs and leachability criteria were listed for proposed removal or remediation required. For the residential scenario, all locations exceeding 3X RSCTLs and/or leachability criteria were listed as requiring removal or remediation. For the industrial scenario, only locations that have a grass surface (or not asphalt or concrete surface) and exceeding 3X ISCTL and leachability criteria were listed. Under the industrial use scenario, locations that are "capped" by an impermeable soil layer, asphalt, or concrete are protective of human health for industrial use because the cap reduces risk of exposure and leachability to groundwater. Institutional controls would be used to ensure that the cap is maintained. Tables 8 and 9 summarize the locations proposed for removal under both residential and industrial scenarios.

Table 8
Locations Listed for Removal or Remedial Action
Residential Scenario

Soil Boring	Contains Parameter Exceeding 3X RSCTL?	Contains Parameter Exceeding Leachability Criteria?	Surface Soil Removal	Subsurface Soil Removal
Building 71				
36SB80S	X		X	
38S01	X		X	X
38S07		X	X	X
38S08		X		X
38S09		X	X	
38S10		X	X	
38S12	X	X	X	X
38S13	X	X	X	X
38S15		X		X
38S14	X	X	X	X
38S16	X	X	X	X
38S17		X	X	
38S18	X	X	X	X
38S32	X		X	
38S33	X		X	
38S34	X		X	X
B-I10		X	X	
B-T05	X	X	X	

Table 8
Locations Listed for Removal or Remedial Action
Residential Scenario

Soil Boring	Contains Parameter Exceeding 3X RSCTL?	Contains Parameter Exceeding Leachability Criteria?	Surface Soil Removal	Subsurface Soil Removal
Building 604				
36SB73C		X	X	
36SB74C	X	X		X
36SB74N	X	X	X	
36SB74W	X	X	X	
36SB75C	X	X	X	
36SB75E	X	X	X	X
36SB77W	X	X	X	
36SB78E	X	X	X	
38SB78S		X	X	
36SB78W	X	X	X	
38S26	X	X	X	X
38S35	X	X	X	X
38S36	X	X	X	X
38S37	X	X	X	X
B-T01	X	X	X	
B-T03		X	X	
B-T07		X	X	
B-T08	X	X	X	
B-T09	X	X	X	
B-T11	X	X	X	
B-T13	X	X	X	
B-T14	X	X	X	
B-T15	X	X	X	
B-T16	X	X	X	
B-T17	X	X	X	
B-T18	X	X	X	
B-T19	X	X	X	
B-T20	X	X	X	
B-T23	X	X	X	
B-T25	X	X	X	
B-T27	X	X	X	
B-T29		X	X	
B-T31	X	X	X	
B-T37		X	X	
B-T38		X	X	
B-T39	X	X	X	
B-T41	X	X	X	
B-T42	X	X	X	

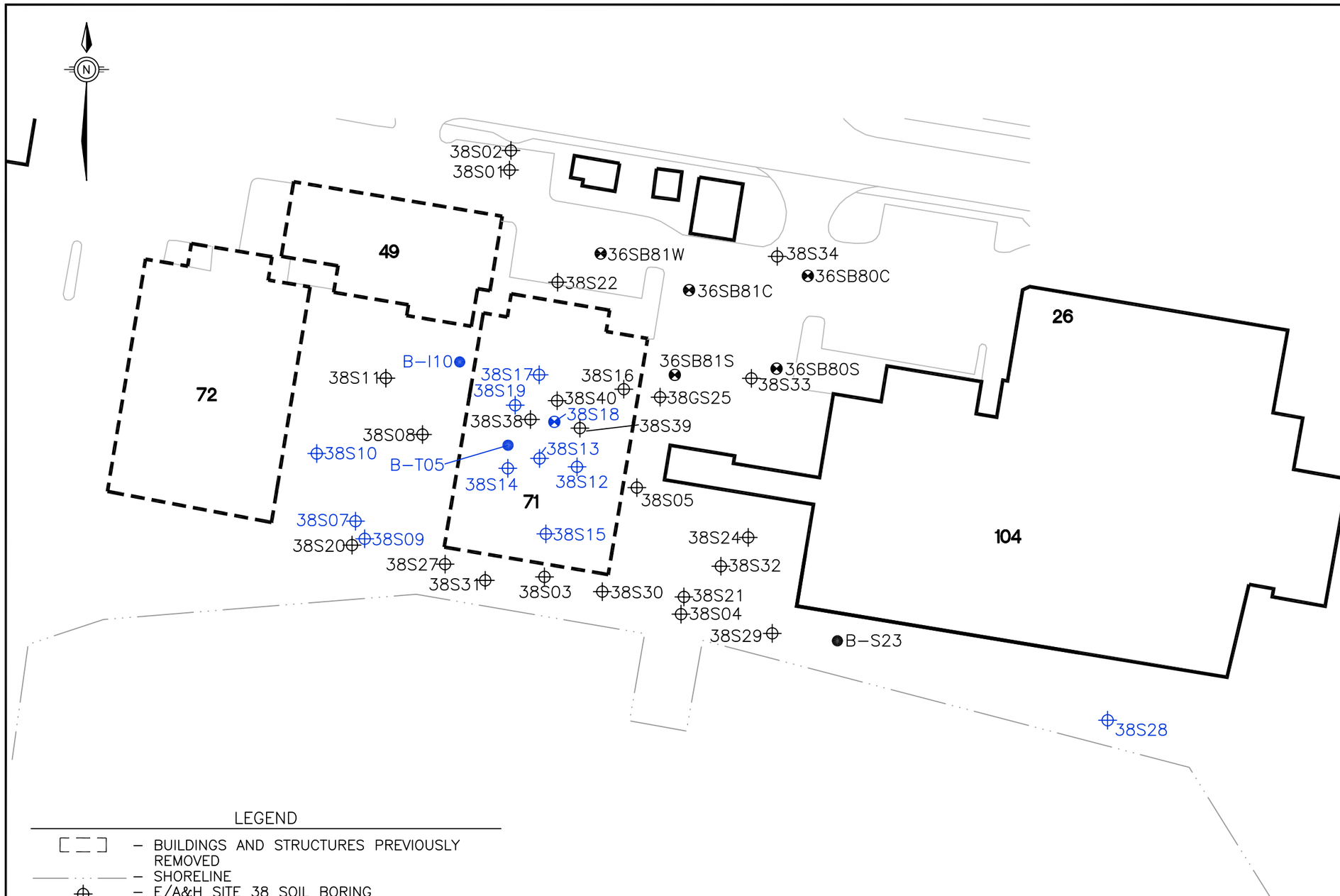
Table 9
Locations Listed for Removal or Remedial Action
Industrial Scenario

Soil Boring	Contains Parameter Exceeding 3X ISCTL?	Contains Parameter Exceeding Leachability Criteria?	Surface Soil Removal	Subsurface Soil Removal
Building 71				
None				
Building 604				
36SB78S		X	X	
38S37		X	X	X
B-T03		X	X	
B-T07		X	X	
B-T15		X	X	
B-T37		X	X	
B-T38		X	X	
B-T41		X	X	
B-T42		X	X	

The total volume of impacted soil was calculated for both scenarios using locations that exceed 3X SCTL and Leachability Criteria (Tables 8 and 9). Under the residential scenario, approximately 3,600 cubic yards (CY) at Building 71 and 22,400 CY at Building 604 require removal or remedial action to be protective of human health because of exceeding 3X RSCTL and/or Leachability Criteria. Under the industrial scenario, only the locations exceeding 3X ISCTL and/or Leachability Criteria that are not covered by asphalt or concrete surface require removal to be protective of human health and the environment. Under the industrial use scenario, an asphalt or concrete cap limits the risk of exposure and leachability to groundwater. Therefore, locations under a cap and/or building are not included in the remedial or removal volume, totaling 0 CY at Building 71 and approximately 1,100 CY at Building 604 that require removal or remedial action.

Figures 11 thru 14 show removal areas for both Buildings 71 and 604 under residential and industrial scenarios.

Presently, Building 71 has been demolished and only the concrete foundation remains. The vacant lot is being used by Morale, Welfare, and Recreation (MWR) for parking large trucks. The general area surrounding Site 38 is used for storage, maintenance, and operations supported by MWR. Building 604 is presently being used for storage. Present use for both areas is industrial and future expected use will be industrial. Therefore, the industrial use scenario is proposed for removal or remedial actions.



LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- ⊕ – E/A&H SITE 38 SOIL BORING
- ⊗ – IWTP SEWERLINE STUDY SOIL BORING
- ● – EPA SOIL BORING
- ● – DETECTION EXCEEDS LECHABILITY BASED ON GROUNDWATER CRITERIA

NOTES: BORING 38S28 IS INCLUDED WITH BUILDING 604.

0 70 140
SCALE IN FEET

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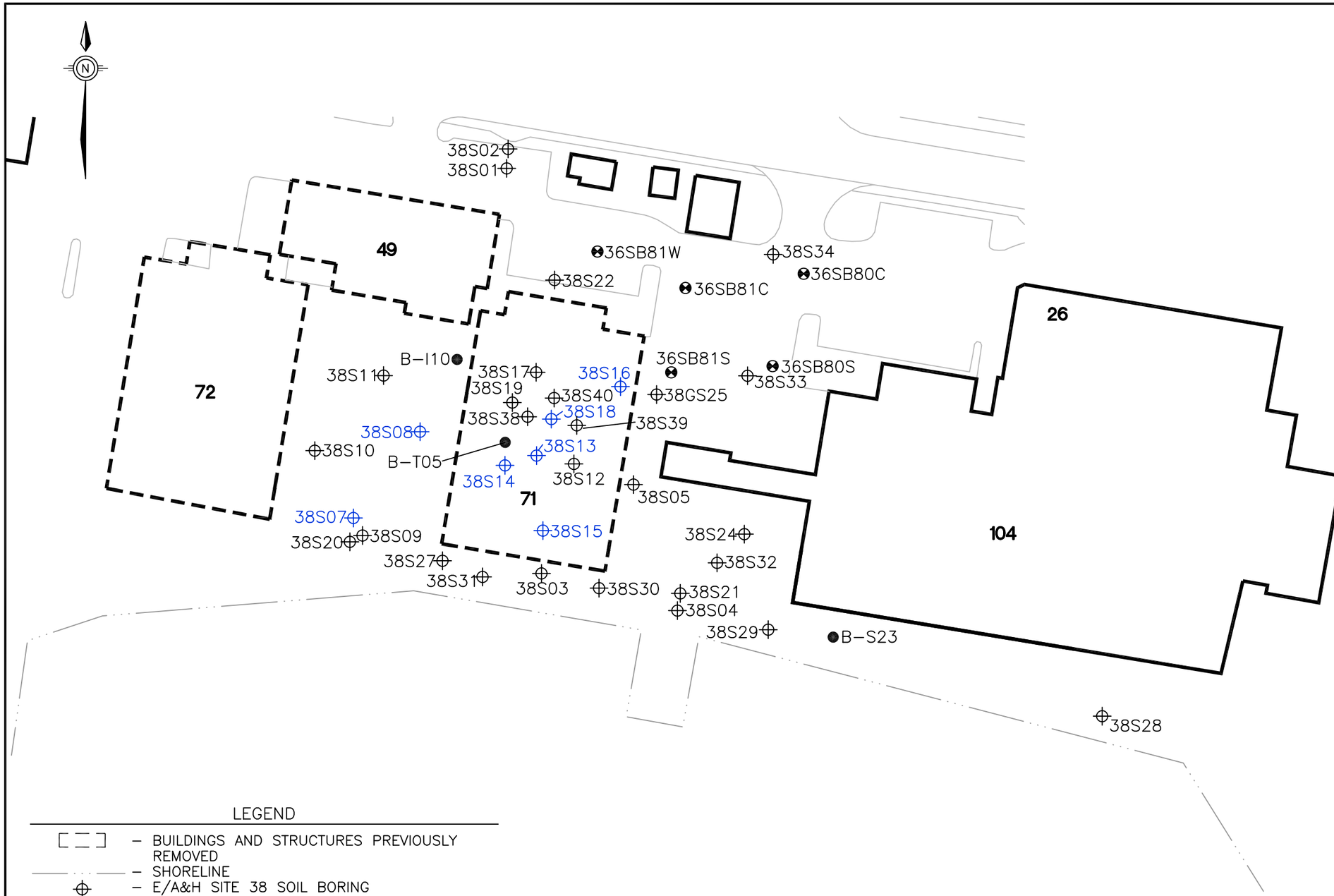
NAS PENSACOLA
PENSACOLA, FLORIDA

FIGURE 7
BUILDING 71
LEACHABILITY BASED ON GROUNDWATER CRITERIA EXCEEDANCES
SURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001R205



LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – DETECTION EXCEEDS LECHABILITY BASED ON GROUNDWATER CRITERIA

NOTES: BORING 38S28 IS INCLUDED WITH BUILDING 604.

0 70 140
SCALE IN FEET

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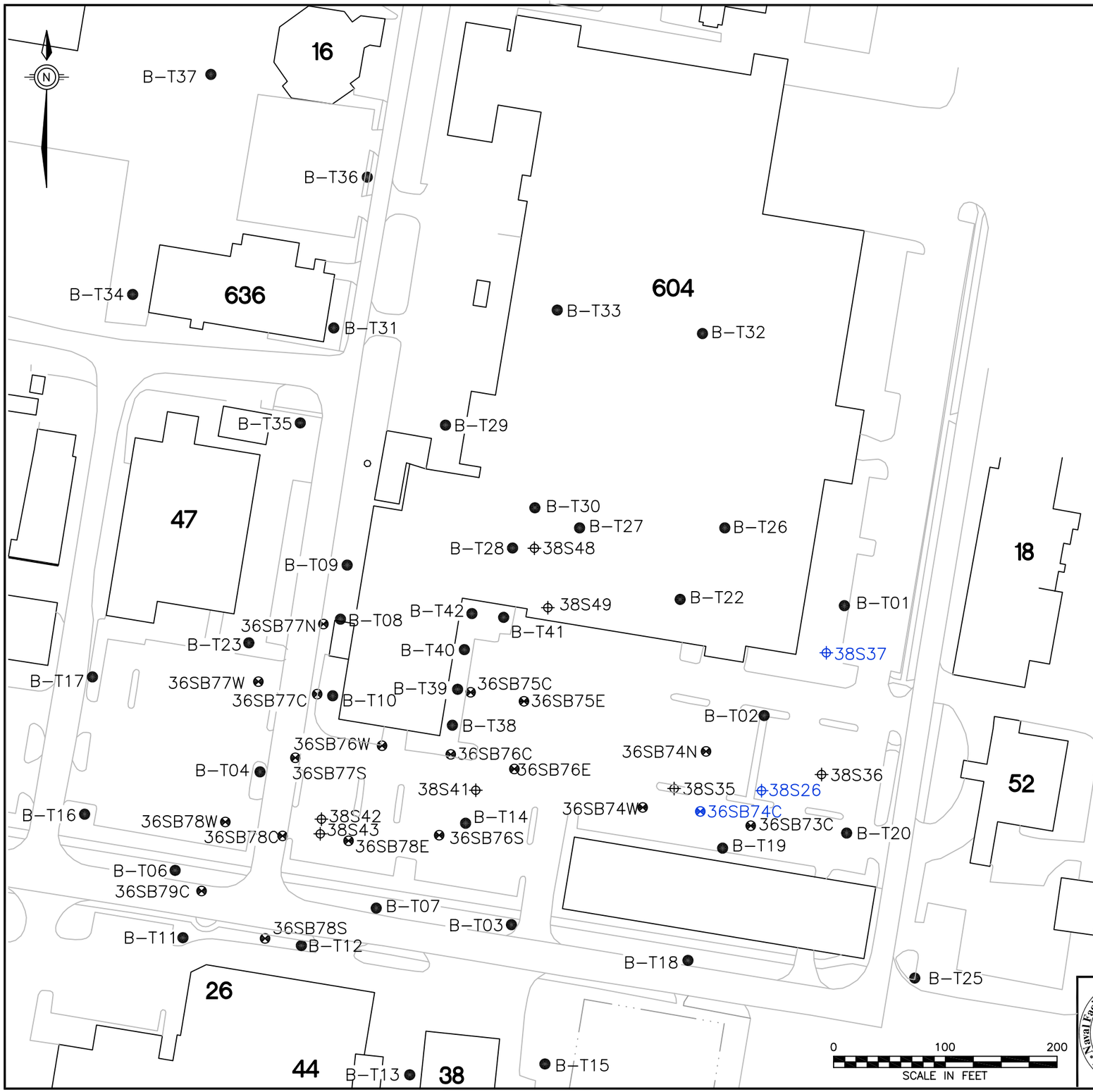
FIGURE 8
BUILDING 71
LEACHABILITY BASED ON GROUNDWATER CRITERIA EXCEEDANCES
SUBSURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001R206



LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – DETECTION EXCEEDS LECHABILITY BASED ON GROUNDWATER CRITERIA

NOTE: BORING 38S28 IS SHOWN ON FIGURES FOR BUILDING 71.

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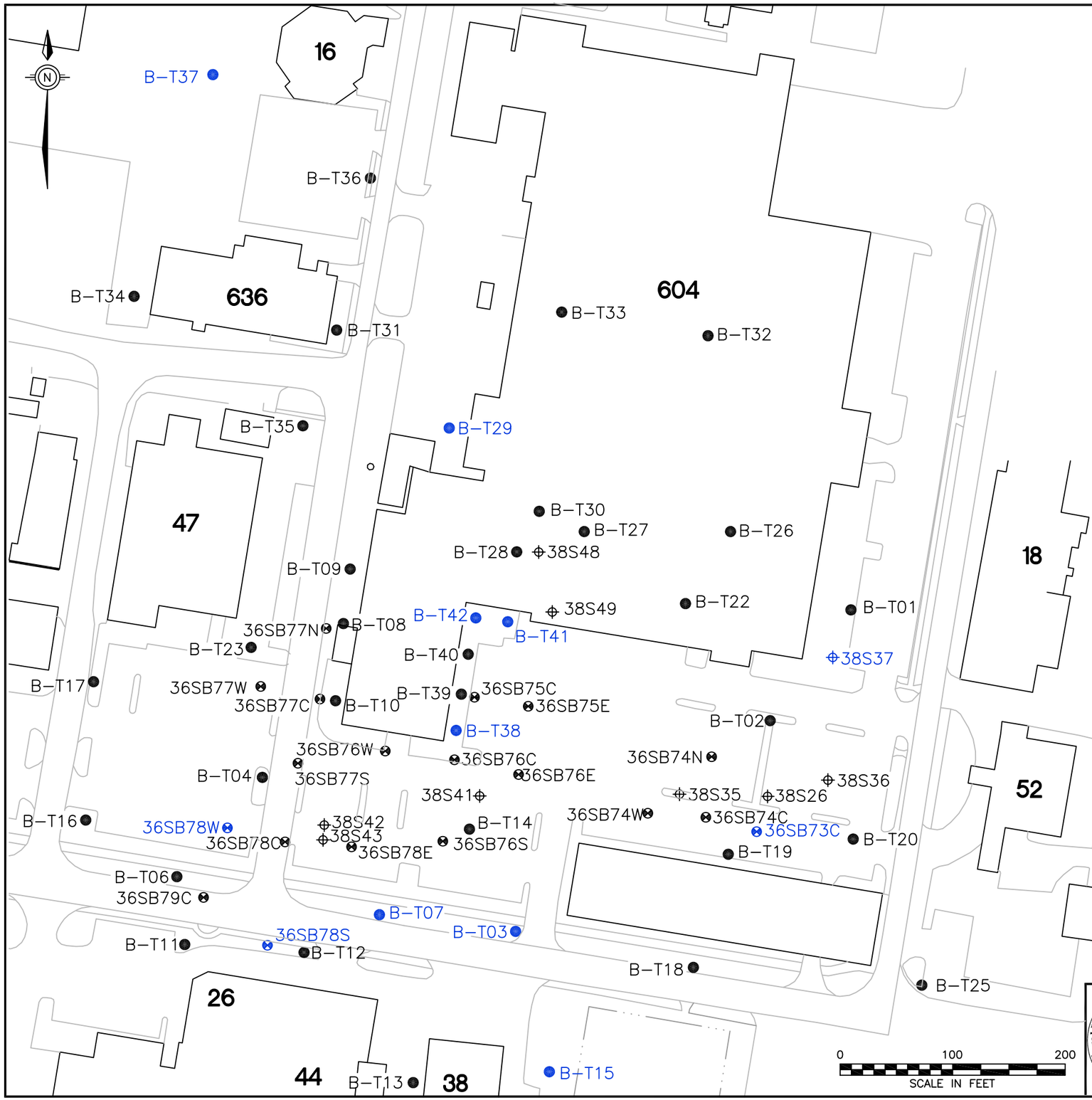
PENSACOLA, FLORIDA

FIGURE 10
BUILDING 604
LEACHABILITY BASED ON GROUNDWATER CRITERIA EXCEEDANCES
SUBSURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001R208



LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – DETECTION EXCEEDS LECHABILITY BASED ON GROUNDWATER CRITERIA

NOTE: BORING 38S28 IS SHOWN ON FIGURES FOR BUILDING 71.

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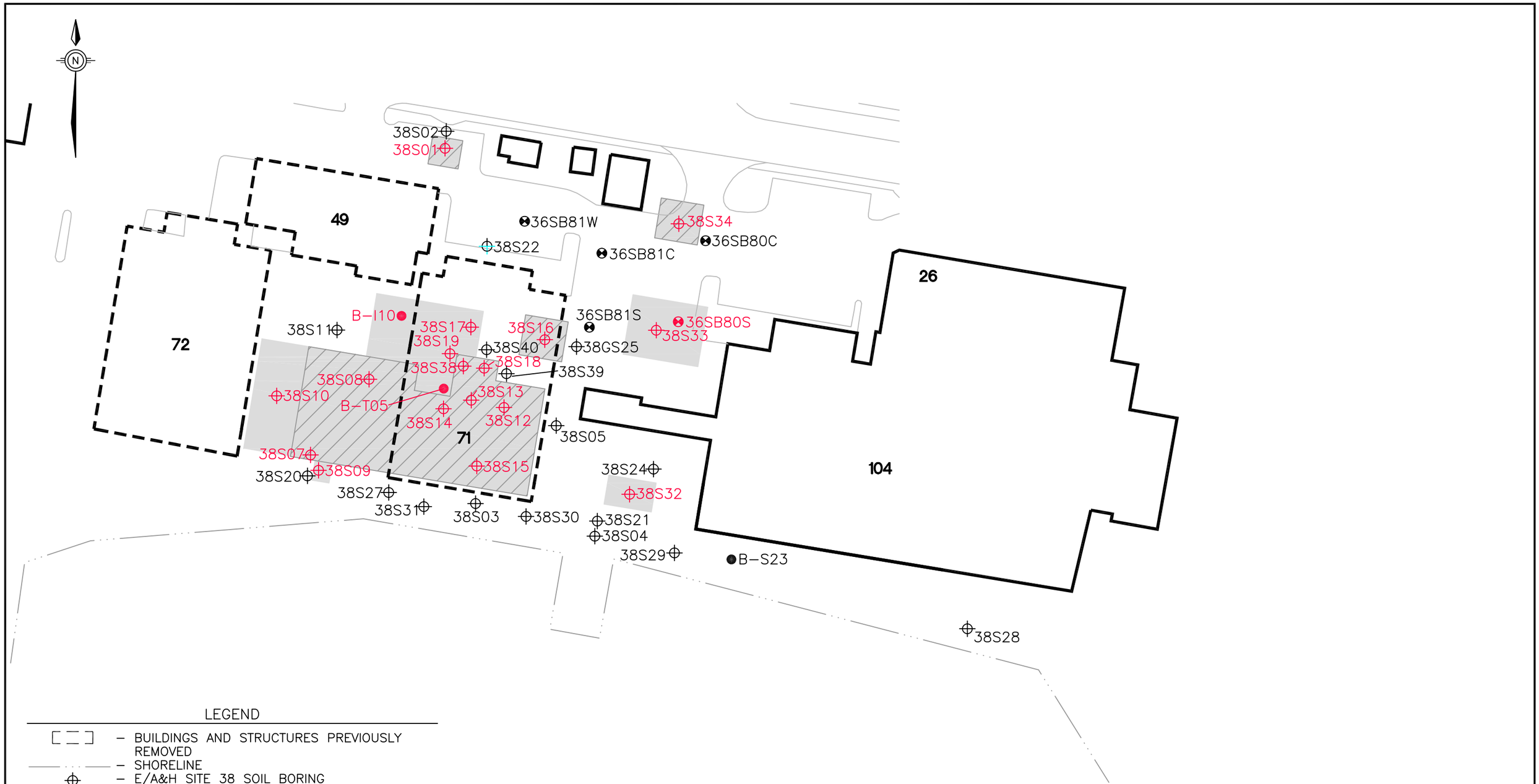
FIGURE 9
BUILDING 604
LEACHABILITY BASED ON GROUNDWATER CRITERIA EXCEEDANCES
SURFACE SOIL

DWG DATE:16JUL03 | NAME: 0059001R207



LEGEND

- BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- SHORELINE
- E/A&H SITE 38 SOIL BORING
- IWTP SEWERLINE STUDY SOIL BORING
- EPA SOIL BORING
- EXCEEDS 3X RSCTL AND/OR LEACHABILITY CRITERIA
- REMOVAL AREA TO 2 FEET DEEP
- REMOVAL AREA TO 5 FEET DEEP

NOTES: BORING 38S28 IS INCLUDED WITH BUILDING 604.
NO BORINGS WITH A GRASS SURFACE EXCEED 3X ISCTL AND/OR LEACHABILITY CRITERIA

0 70 140
SCALE IN FEET

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FIGURE 11
BUILDING 71
REMOVAL AREAS
RESIDENTIAL SCENARIOS

DWG DATE: 17JUL03 | NAME: 0059001R209

LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – EXCEEDS 3X RSCTL AND/OR LEACHABILITY CRITERIA
- – REMOVAL AREA TO 2 FEET DEEP
- – REMOVAL AREA TO 5 FEET DEEP

NOTES: BORING 38S28 IS SHOWN ON FIGURES FOR BUILDING 71.

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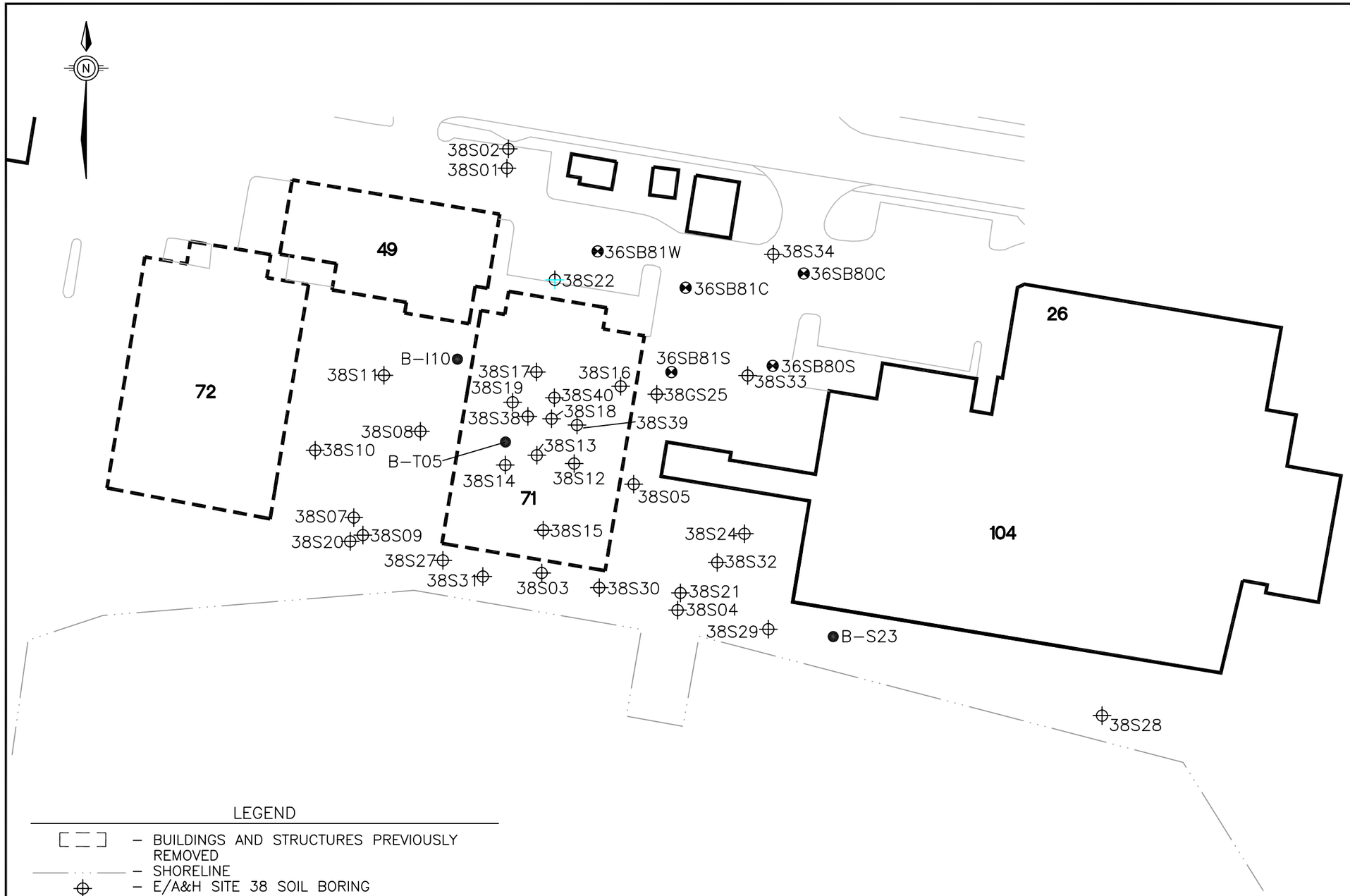
FIGURE 12
BUILDING 604
REMOVAL AREAS
RESIDENTIAL SCENARIOS

DWG DATE:17JUL03 | NAME: 0059001R212



LEGEND

- BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- SHORELINE
- E/A&H SITE 38 SOIL BORING
- IWTP SEWERLINE STUDY SOIL BORING
- EPA SOIL BORING
- EXCEEDS 3X ISCTL AND/OR LEACHABILITY CRITERIA
- REMOVAL AREA TO 2 FEET DEEP
- REMOVAL AREA TO 5 FEET DEEP

NOTES: BORING 38S28 IS INCLUDED WITH BUILDING 604.
NO BORINGS WITH A GRASS SURFACE EXCEED 3X ISCTL AND/OR LEACHABILITY CRITERIA

0 70 140
SCALE IN FEET

Naval Facilities Engineering Command • Southern Division •

SITE 38
TECHNICAL MEMORANDUM
NAS PENSACOLA
PENSACOLA, FLORIDA

FIGURE 13
BUILDING 71
REMOVAL AREAS
INDUSTRIAL SCENARIOS

DWG DATE: 17JUL03 | NAME: 0059001R210

LEGEND

- [ ] – BUILDINGS AND STRUCTURES PREVIOUSLY REMOVED
- – SHORELINE
- – E/A&H SITE 38 SOIL BORING
- – IWTP SEWERLINE STUDY SOIL BORING
- – EPA SOIL BORING
- – EXCEEDS 3X ISCTL AND/OR LEACHABILITY CRITERIA
- – REMOVAL AREA TO 2 FEET DEEP
- – REMOVAL AREA TO 5 FEET DEEP

NOTES: BORING 38S28 IS SHOWN ON FIGURES FOR BUILDING 71. LOCATIONS EXCEEDING 3X ISCTL AND/OR LEACHABILITY AND ARE GRASS SURFACE ARE PROPOSED FOR REMOVAL.

Naval Facilities Engineering Command • Southern Division •

SITE 38
TECHNICAL MEMORANDUM
NAS PENSACOLA
PENSACOLA, FLORIDA

FIGURE 14
BUILDING 604
REMOVAL AREAS
INDUSTRIAL SCENARIOS

DWG DATE:17JUL03 | NAME: 0059001R211

4.0 Building Area Summaries and Recommendations

4.1 Building 71 Area

For the Building 71 Area, surface and subsurface soils for boring 38S18 exhibited high Aroclor-1254 concentrations, exceeding 3X ISCTL. Subsurface soil for boring 38S12 also exhibited a high arsenic concentration, exceeding 3X ISCTL. Soil borings 38S12 and 38S18 are underneath the former Building 71 concrete foundation. Therefore, unless the foundation is to be removed or disturbed, risk of exposure is minimal.

The average concentration for dibenz(a,h)anthracene surface soil (502.62 µg/kg) slightly exceeded its ISCTL (500 µg/kg). However, only four samples had detections ranging from 57 to 230 µg/kg; all well below the ISCTL. This high average is due to some high SQLs within the data set, ranging from 1700 to 3700 µg/kg, thereby resulting in the high average concentration. Therefore, dibenz(a,h)anthracene is not a site-wide concern under the industrial use scenario.

Lead modeling results identified lead as a COC for both surface and subsurface soils. Lead would not be identified as a concern if groundwater were not assumed to be injested. Groundwater from this area is presently not used for potable water.

As shown in Table 7, there are several locations exceeding leachability criteria. However, none of these locations that exceed leachability criteria has a grass surface. All are underneath the former building foundation or asphalt pavement. Therefore, unless the foundation or pavement is removed or disturbed, risk of exposure is minimal.

Institutional controls are restrictions on use of or access to a site to eliminate or minimize exposure to contaminants. Where contamination is capped to prevent direct exposure and/or reduce leaching of contaminants to groundwater, it is generally necessary to prohibit activities that could degrade and/or damage the cap. Institutional controls for groundwater use and engineering controls for maintenance of asphalt pavement and the building foundation are recommended for the Building 71 area. The site currently has access restrictions which will continue in the future.

4.2 Building 604 Area

For the Building 604 Area, surface soils for borings 38S35 and 36SB74C exhibited high arsenic concentrations, exceeding 3X ISCTL. Surface and subsurface soils for borings B-T27 and 36SB74C, respectively, exhibited benzo(a)pyrene concentrations exceeding 3X ISCTL. A summary table showing all locations exceeding 3X SCTLs and descriptions of these locations is in Appendix D. Soil boring B-T27 is underneath the existing building. Soil boring 36SB74C is underneath asphalt pavement. Therefore, risk of exposure at these two locations is minimal. Proper maintenance of the asphalt pavement will be required. Soil boring 38S35 is located within a grassy area and is proposed for removal.

The average concentration for benzo(a)pyrene surface soil (1,461.36 µg/kg) exceeded its ISCTL (500 µg/kg). However, only nine surface soil samples had detections ranging from 160 to 510 µg/kg, excluding sample 038S0T2701 that exceeded 3X ISCTL. This high average is due to some high SQLs within the data set, ranging from 1,800 to 20,000 µg/kg, thereby resulting in the high average concentration. Therefore, benzo(a)pyrene is not a site-wide concern under the industrial use scenario.

Lead modeling results identified lead as a COC for both surface and subsurface soils. Lead would not be identified as a concern if groundwater were not assumed to be injested. Groundwater from this area is presently not used for potable water.

As shown in Table 7, several locations exceed leachability criteria. Of these, only the following locations are not covered by a cap: 36SB78S, 38S26, 38S37, B-T03, B-T07, B-T15, B-T37, B-T38, B-T41, and B-T41. These locations are proposed for removal or remedial action along with 38S35 as discussed above, totaling approximately 1,100 CY of soil proposed for remediation evaluation or removal.

Institutional controls for groundwater use and engineering controls for maintenance of asphalt pavement and building foundation are recommended for the remaining Building 604 area. The site currently has access restrictions which will continue in the future.

APPENDIX A

ANALYTICAL DATA COMPARISON TO SOIL CLEANUP TARGET LEVELS

ITWP Line Data

Surface Soil

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Aluminum			72,000	216,000	NA	NA	***
	036S073C02	297.00					
	036S074C02	649.00					
	036S074N02	2030.00					
	036S074W02	4500.00					
	036S075C02	1330.00 J					
	036S075E02	1440.00 J					
	036S076C02	3130.00 J					
	036S076E02	388.00 J					
	036S076S02	409.00 J					
	036S076W02	200.00 J					
	036S077C02	273.00					
	036S077N02	17.20 J					
	036S077S02	1710.00					
	036S077W02	890.00 J					
	036S078C02	524.00					
	036S078S02	1150.00					
	036S078W02	5010.00					
	036S079C02	82.20					
	036S079W02	963.00					
	036S080C02	292.00					
	036S080S02	1100.00					
	036S081C02	1920.00					
	036S081W02	44.70					
Antimony			26	78	240	720	5
	036S074C02	1.80 J					
	036S077S02	2.60 J					
	036S080S02	2.70 J					
Arsenic	*Note: RC = 1.56 mg/kg		0.8	2.4	3.7	11.1	29
	036S073C02	0.63 J					
	036S074C02	1.20	X				
	036S074N02	6.40	X	X	X		
	036S074W02	3.60	X	X			
	036S075C02	0.85 J	X				
	036S075E02	5.10 J	X	X	X		
	036S076C02	2.00 J	X				
	036S076E02	0.46 J					
	036S076S02	1.30 J	X				
	036S076W02	0.70 J					
	036S077C02	0.33 J					
	036S077S02	1.30 J	X				
	036S077W02	0.91 J	X				
	036S078C02	0.90 J	X				
	036S078E02	3.20 J	X	X			
	036S078S02	1.10 J	X				
	036S078W02	0.21 J					
	036S080C02	1.30 J	X				
	036S080S02	0.47 J					
	036S081C02	0.72 J					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Barium			110	NA	87,000	261,000	1,600
	036S073C02	11.80 J					
	036S074C02	23.30 J					
	036S074N02	102.00					
	036S074W02	41.60					
	036S075C02	17.00 J					
	036S075E02	62.50					
	036S076C02	44.60					
	036S076E02	6.80 J					
	036S076S02	13.40 J					
	036S076W02	4.50 J					
	036S077C02	11.50 J					
	036S077N02	0.37 J					
	036S077S02	20.70 J					
	036S077W02	9.50 J					
	036S078C02	14.00 J					
	036S078E02	21.50 J					
	036S078S02	19.90 J					
	036S078W02	2.70 J					
	036S079C02	1.70 J					
	036S079W02	28.80 J					
	036S080C02	20.50 J					
	036S080S02	28.10 J					
	036S081C02	10.70 J					
	036S081W02	0.54 J					
Beryllium			120	360	800	2,400	63
	036S074C02	0.12 J					
	036S074N02	0.31 J					
	036S076C02	0.28 J					
Cadmium			75	NA	1,300	3,900	8
	036S074C02	0.64					
	036S074N02	1.20					
	036S075C02	1.70					
	036S075E02	2.60					
	036S076C02	3.20					
	036S076S02	0.97					
	036S076W02	4.40					
Calcium			Not Available				
	036S073C02	422.00 J					
	036S074C02	1670.00					
	036S074N02	1980.00					
	036S074W02	60400.00					
	036S075C02	995.00					
	036S075E02	1140.00					
	036S076C02	11000.00					
	036S076E02	1600.00					
	036S076S02	509.00 J					
	036S076W02	308.00 J					
	036S077C02	5210.00					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S077N02	20.30	J					
	036S077S02	26300.00						
	036S077W02	551.00	J					
	036S078C02	3490.00						
	036S078E02	1160.00						
	036S078S02	1930.00						
	036S078W02	593.00	J					
	036S079C02	227.00	J					
	036S079W02	3670.00						
	036S080C02	859.00						
	036S080S02	17000.00						
	036S081C02	7920.00						
	036S081W02	30.60	J					
Chromium	(use Chromium VI SCTL)			210	630	420	1,260	38
	036S073C02	1.70						
	036S074C02	2.40						
	036S074N02	6.70						
	036S074W02	8.70						
	036S075C02	29.50	J					
	036S075E02	6.60	J					
	036S076C02	4.40	J					
	036S076E02	1.10	J					
	036S076S02	3.10	J					
	036S076W02	8.80	J					
	036S077C02	1.70						
	036S077N02	5.10						
	036S077S02	18.50						
	036S077W02	2.10						
	036S078C02	2.20						
	036S078S02	8.80						
	036S078W02	8.60						
	036S079W02	7.50						
	036S080C02	2.10						
	036S080S02	3.40						
	036S081C02	12.30						
Cobalt				4,700	14,100	110,000	330,000	***
	036S073C02	0.56	J					
	036S074N02	5.30	J					
	036S074W02	1.20	J					
	036S075C02	0.25	J					
	036S075E02	1.50	J					
	036S076C02	0.41	J					
	036S076S02	0.35	J					
	036S077C02	0.35	J					
	036S077S02	0.38	J					
	036S078E02	0.75	J					
	036S078S02	0.78	J					
	036S080S02	0.49	J					
Copper				110	NA	76,000	228,000	***

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S073C02	21.40					
	036S074C02	15.90					
	036S074N02	607.00	X				
	036S074W02	117.00	X				
	036S075C02	12.30					
	036S075E02	391.00	X				
	036S076C02	28.90					
	036S076E02	32.60					
	036S076S02	12.70					
	036S076W02	16.20					
	036S077C02	16.10					
	036S077N02	0.79 J					
	036S077S02	2.60 J					
	036S077W02	4.40					
	036S078C02	15.60					
	036S078E02	264.00	X				
	036S078S02	75.90					
	036S078W02	1.20 J					
	036S079C02	13.60					
	036S079W02	5.70					
	036S080C02	8.00					
	036S080S02	5340.00	X				
	036S081C02	17.60					
	036S081W02	1.70 J					
Cyanide (CN)			30	NA	39,000	117,000	40
	036S074N02	0.22 J					
	036S075C02	0.23 J					
	036S076S02	0.48					
	036S078E02	0.66					
Iron			23,000	69,000	480,000	1,440,000	***
	036S073C02	763.00					
	036S074C02	629.00					
	036S074N02	24900.00	X				
	036S074W02	3880.00					
	036S075C02	706.00 J					
	036S075E02	4380.00 J					
	036S076C02	2100.00 J					
	036S076E02	287.00 J					
	036S076S02	598.00 J					
	036S076W02	504.00 J					
	036S077C02	993.00 J					
	036S077N02	50.20 J					
	036S077S02	1130.00					
	036S077W02	1250.00 J					
	036S078C02	1070.00					
	036S078S02	1560.00					
	036S078W02	6130.00					
	036S079C02	519.00 J					
	036S079W02	342.00 J					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S080C02	285.00						
	036S080S02	3800.00						
	036S081C02	3010.00	J					
	036S081W02	70.30						
Lead				400	1,200	920	2,760	***
	036S073C02	103.00						
	036S074C02	146.00						
	036S074N02	949.00		X		X		
	036S074W02	408.00		X				
	036S075C02	56.50	J					
	036S075E02	579.00	J	X				
	036S076C02	104.00	J					
	036S076E02	73.50	J					
	036S076S02	128.00	J					
	036S076W02	32.70	J					
	036S077C02	91.10	J					
	036S077N02	2.00	J					
	036S077S02	6.60	J					
	036S077W02	35.30	J					
	036S078C02	74.60						
	036S078S02	120.00						
	036S078W02	2.50	J					
	036S079C02	16.60	J					
	036S079W02	29.00	J					
	036S080C02	114.00						
	036S080S02	139.00						
	036S081C02	54.50	J					
	036S081W02	12.00						
Magnesium				Not Available				
	036S073C02	71.30	J					
	036S074C02	237.00	J					
	036S074N02	612.00	J					
	036S074W02	14400.00						
	036S075C02	165.00	J					
	036S075E02	269.00	J					
	036S076C02	477.00	J					
	036S076E02	150.00	J					
	036S076S02	37.80	J					
	036S076W02	31.30	J					
	036S077C02	170.00	J					
	036S077S02	5100.00						
	036S077W02	114.00	J					
	036S078C02	164.00	J					
	036S078E02	303.00	J					
	036S078S02	382.00	J					
	036S078W02	157.00	J					
	036S079C02	17.70	J					
	036S079W02	669.00	J					
	036S080C02	77.60	J					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S080S02	478.00 J					
	036S081C02	197.00 J					
	036S081W02	9.00 J					
Manganese			1,600	4,800	22,000	66,000	***
	036S073C02	13.20					
	036S074C02	59.90					
	036S074N02	185.00					
	036S074W02	232.00					
	036S075C02	97.50					
	036S075E02	63.50					
	036S076C02	184.00					
	036S076E02	9.50					
	036S076S02	30.30					
	036S076W02	8.60					
	036S077C02	37.30 J					
	036S077N02	2.10 J					
	036S077S02	71.50 J					
	036S077W02	19.80					
	036S078C02	20.10					
	036S078E02	25.30					
	036S078S02	84.80					
	036S078W02	6.70					
	036S079C02	8.30 J					
	036S079W02	47.50 J					
	036S080C02	18.60					
	036S080S02	20.90					
	036S081C02	39.30 J					
	036S081W02	2.90					
Mercury			3.4	10.2	26	78	2.1
	036S074C02	0.15					
	036S074N02	0.44					
	036S074W02	0.07					
	036S075E02	0.34					
	036S076C02	0.15					
	036S076S02	0.09					
	036S078C02	0.06					
	036S078E02	0.10					
	036S078S02	0.09					
	036S080S02	0.79					
Nickel			110	NA	28,000	84,000	130
	036S073C02	1.80 J					
	036S074N02	10.70					
	036S074W02	3.70 J					
	036S075C02	3.70 J					
	036S075E02	8.00					
	036S076C02	1.00 J					
	036S077S02	2.00 J					
	036S078C02	2.40 J					
	036S078E02	2.90 J					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S079W02	2.00 J					
	036S080S02	2.00 J					
Potassium			Not Available				
	036S074C02	94.20 J					
	036S074N02	127.00 J					
	036S074W02	47.20 J					
	036S075C02	40.30 J					
	036S075E02	99.10 J					
	036S076C02	484.00 J					
	036S076E02	43.90 J					
	036S076S02	31.70 J					
	036S077S02	125.00 J					
	036S077W02	35.70 J					
	036S078C02	103.00 J					
	036S078E02	84.50 J					
	036S078S02	86.80 J					
	036S078W02	43.90 J					
	036S079W02	223.00 J					
	036S080S02	115.00 J					
	036S081C02	54.90 J					
Selenium			390	1,170	10,000	30,000	5
	036S076E02	0.18 J					
	036S076S02	0.15 J					
	036S078E02	0.19 J					
	036S078W02	4.10 J					
	036S080C02	0.22 J					
Sodium			Not Available				
	036S073C02	65.40 J					
	036S074C02	22.50 J					
	036S074N02	46.80 J					
	036S074W02	90.70 J					
	036S075C02	20.20 J					
	036S075E02	38.70 J					
	036S076C02	110.00 J					
	036S076E02	19.10 J					
	036S076S02	15.60 J					
	036S076W02	9.30 J					
	036S077C02	12.90 J					
	036S077N02	8.10 J					
	036S077S02	36.00 J					
	036S077W02	18.90 J					
	036S078C02	27.10 J					
	036S078E02	29.70 J					
	036S078S02	77.70 J					
	036S078W02	16.30 J					
	036S079C02	10.60 J					
	036S079W02	45.70 J					
	036S080C02	29.80 J					
	036S080S02	76.00 J					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S081C02	59.60 J					
	036S081W02	8.10 J					
Thallium*			5.2	15.6	67	201	Not Available
	036S077W02	0.28 J					
	036S078E02	0.38 J					
Vanadium			15	NA	7,400	22,200	980
	036S073C02	1.50 J					
	036S074C02	1.70 J					
	036S074N02	9.90					
	036S074W02	7.30 J					
	036S075C02	1.80 J					
	036S075E02	4.40 J					
	036S076C02	4.10 J					
	036S076E02	0.55 J					
	036S076S02	1.10 J					
	036S077C02	1.00 J					
	036S077N02	0.51 J					
	036S077S02	2.60 J					
	036S077W02	3.00 J					
	036S078C02	1.80 J					
	036S078E02	1.60 J					
	036S078S02	2.00 J					
	036S078W02	15.10 J	X				
	036S080C02	1.00 J					
	036S080S02	3.00 J					
	036S081C02	6.60 J					
Zinc			23,000	69,000	560,000	1,680,000	6,000
	036S073C02	32.10					
	036S074C02	63.90					
	036S074N02	1180.00					
	036S074W02	186.00					
	036S075C02	90.90					
	036S075E02	491.00					
	036S076C02	77.20					
	036S076E02	27.80					
	036S076S02	47.90					
	036S076W02	29.70					
	036S077C02	27.40					
	036S077N02	1.20 J					
	036S077S02	10.90					
	036S077W02	16.30					
	036S078C02	46.80					
	036S078E02	76.30 J					
	036S078S02	102.00					
	036S078W02	0.80 J					
	036S079C02	6.60					
	036S079W02	10.10					
	036S080C02	59.00					
	036S080S02	92.60					

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	036S081C02	36.90					
	036S081W02	2.40 J					

Notes:
All concentrations and criteria are in milligrams per kilogram (mg/kg).
***Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF PESTICIDE/PCB DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
4,4'-DDD				4,600	13,800	18,000	54,000	4,000
	036S078W02	3.50	J					
4,4'-DDE				3,300	9,900	13,000	39,000	18,000
	036S074W02	12.00						
	036S078W02	8.10						
4,4'-DDT				3,300	9,900	13,000	39,000	11,000
	036S075C02	1.30	J					
	036S078W02	17.00						
alpha-Chlordane	(use Chlordane SCTL)			3,100	9,300	12,000	36,000	9,600
	036S078W02	0.46	J					
Aroclor-1260	(use PCB mixture SCTL)			500	1,500	2,100	6,300	17,000
	036S080C02	25.00	J					
Dieldrin				70	210	300	900	4
	036S075E02	1.40	J					
	036S078E02	0.94	J					
	036S078W02	15.00	J					X
Endrin				21,000	63,000	340,000	1,020,000	1,000
	036S074C02	1.40	J					
	036S075C02	2.70	J					
	036S075E02	9.90						
	036S076C02	1.80	J					
	036S076E02	3.40						
	036S078E02	7.80						
	036S078W02	3.30	J					
Heptachlor epoxide				100	300	400	1,200	600
	036S075E02	0.58	J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Acenaphthylene			1,100,000	3,300,000	11,000,000	33,000,000	27,000
	036S074W02	240.00 J					
	036S077W02	370.00					
Anthracene			18,000,000	54,000,000	260,000,000	780,000,000	2,500,000
	036S077W02	180.00 J					
Benzo(a)anthracene			1,400	4,200	5,000	15,000	3,200
	036S073C02	210.00 J					
	036S074C02	270.00 J					
	036S074W02	280.00 J					
	036S075C02	360.00 J					
	036S077W02	370.00					
Benzo(a)pyrene			100	300	500	1,500	8,000
	036S073C02	210.00 J	X				
	036S074C02	270.00 J	X				
	036S074W02	350.00 J	X	X			
	036S075C02	310.00 J	X	X			
	036S076W02	180.00 J	X				
	036S077W02	510.00	X	X	X		
Benzo(b)fluoranthene			1,400	4,200	4,800	14,400	10,000
	036S073C02	450.00					
	036S074C02	530.00					
	036S074W02	600.00					
	036S076W02	410.00					
	036S077W02	870.00					
	036S080S02	200.00 J					
Benzo(g,h,i)perylene			2,300,000	6,900,000	41,000,000	123,000,000	32,000,000
	036S077W02	410.00					
Chrysene			140,000	420,000	450,000	1,350,000	77,000
	036S073C02	210.00 J					
	036S074C02	290.00 J					
	036S074W02	290.00 J					
	036S075C02	330.00 J					
	036S077W02	330.00 J					
Fluoranthene			2,900,000	8,700,000	48,000,000	144,000,000	1,200,000
	036S073C02	300.00 J					
	036S074C02	450.00					
	036S074W02	360.00 J					
	036S075C02	340.00 J					
	036S077W02	300.00 J					
Indeno(1,2,3-cd)pyrene			1,500	4,500	5,300	15,900	28,000
	036S077W02	380.00					
Phenanthrene			2,000,000	6,000,000	30,000,000	90,000,000	250,000
	036S074C02	210.00 J					
Pyrene			2,200,000	6,600,000	37,000,000	111,000,000	880,000
	036S073C02	310.00 J					
	036S074C02	450.00					
	036S074W02	410.00					
	036S075C02	500.00					
	036S077W02	430.00					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

ITWP LINE DATA - SURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
Acetone			780,000	2,340,000	5,500,000	16,500,000	2,800
	036S074C02	840.00 J					
	036S074N02	35.00					
	036S074W02	490.00					
	036S078C02	500.00 J					
	036S078S02	8600.00					X
	036S078W02	95.00					
	036S080C02	200.00					
	036S080S02	35.00					
	036S081C02	83.00					
Methylene chloride			16,000	48,000	23,000	69,000	20
	036S073C02	730.00 J					X
	036S074C02	4.00 J					
	036S076E02	6.00 J					
	036S077C02	6.00 J					
	036S077S02	6.00 J					
	036S078C02	6.00 J					
	036S078E02	4.00 J					
	036S079C02	4.00 J					
	036S079W02	5.00 J					
	036S080S02	4.00 J					
Tetrachloroethene			8,900	26,700	17,000	51,000	30
	036S076S02	3.00 J					
Toluene			380,000	1,140,000	2,600,000	7,800,000	500
	036S074C02	2.00 J					
	036S078C02	3.00 J					
Trichloroethene			6,000	18,000	8,500	25,500	30
	036S076C02	10.00 J					
	036S076S02	8.00 J					
	036S078C02	5.00 J					
	036S080S02	14.00					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

IWTP Line Data

Subsurface Soil

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Aluminum				72,000	216,000	NA	NA	***
	036S073C04	366.00						
	036S074C04	1420.00						
	036S074N04	29.40						
	036S074W04	698.00						
	036S075C04	514.00						
	036S075E06	959.00	J					
	036S076E04	97.80	J					
	036S076W04	994.00	J					
	036S077C04	2500.00						
	036S077N04	15.70	J					
	036S077S04	22.80	J					
	036S077W04	755.00						
	036S078C04	4330.00						
	036S078E04	25.80	J					
	036S078W04	36.30						
	036S079C04	17.30	J					
	036S079W04	31.00	J					
	036S081C04	124.00						
	036S081S03	14.00	J					
	036S081W04	111.00						
Antimony				26	78	240	720	5
	036S078C04	2.20	J					
Arsenic	*Note: RC = 1.56 mg/kg			0.8	2.4	3.7	11.1	29
	036S073C04	0.55	J					
	036S074C04	2.00		X				
	036S074N04	0.16	J					
	036S074W04	0.22	J					
	036S075E06	2.60	J	X	X			
	036S076E04	0.32	J					
	036S076W04	1.30	J	X				
	036S077C04	1.30	J	X				
	036S077W04	0.71	J					
	036S078C04	0.43	J					
	036S078W04	0.22	J					
Barium				110	NA	87,000	261,000	1,600
	036S073C04	7.30	J					
	036S074C04	29.60						
	036S074N04	11.90	J					
	036S074W04	19.50	J					
	036S075C04	11.20	J					
	036S075E06	37.60						
	036S076E04	2.50	J					
	036S076W04	23.70	J					
	036S077C04	53.50						
	036S077N04	0.28	J					
	036S077S04	0.65	J					
	036S077W04	11.80	J					
	036S078C04	18.70	J					

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S078E04	1.40	J					
	036S078W04	1.10	J					
	036S079C04	0.34	J					
	036S079W04	0.76	J					
	036S081C04	1.10	J					
	036S081S03	0.71	J					
	036S081W04	0.30	J					
Beryllium				120	360	800	2,400	63
	036S077C04	0.38	J					
Cadmium				75	NA	1,300	3,900	8
	036S074C04	0.34	J					
	036S075C04	4.90						
	036S076W04	4.90						
	036S077C04	1.30						
	036S078C04	0.83						
Calcium				Not Available				
	036S073C04	490.00	J					
	036S074C04	22400.00						
	036S074N04	28.90	J					
	036S074W04	9010.00						
	036S075C04	1520.00						
	036S075E06	2120.00						
	036S076E04	891.00						
	036S076W04	2210.00						
	036S077C04	14200.00						
	036S077N04	9.60	J					
	036S077S04	30.20	J					
	036S077W04	3830.00						
	036S078C04	21600.00						
	036S078E04	98.10	J					
	036S078W04	32.30	J					
	036S079C04	16.80	J					
	036S079W04	96.90	J					
	036S081C04	138.00	J					
	036S081S03	20.60	J					
	036S081W04	35.80	J					
Chromium	(use Chromium VI SCTL)			210	630	420	1,260	38
	036S073C04	1.40	J					
	036S074C04	2.00						
	036S074N04	1.30						
	036S074W04	1.50	J					
	036S075C04	9.90						
	036S075E06	10.90	J					
	036S076E04	1.50	J					
	036S076W04	11.10	J					
	036S077C04	9.90						
	036S077N04	3.00						
	036S077S04	5.50						
	036S077W04	2.00						

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S078C04	5.70	J					
	036S078W04	0.77	J					
	036S079C04	1.20	J					
	036S079W04	0.76	J					
	036S081C04	7.20						
	036S081S03	1.10	J					
Cobalt				4,700	14,100	110,000	330,000	***
	036S073C04	0.37	J					
	036S074C04	0.70	J					
	036S074W04	0.41	J					
	036S075E06	10.00	J					
	036S076W04	0.34	J					
	036S077C04	0.83	J					
	036S077W04	0.49	J					
	036S078C04	0.51	J					
Copper				110	NA	76,000	228,000	***
	036S073C04	27.10						
	036S074C04	31.50						
	036S074N04	1.20	J					
	036S074W04	10.40						
	036S075C04	23.80						
	036S075E06	129.00		X				
	036S076E04	79.70						
	036S076W04	20.30						
	036S077C04	26.00						
	036S077N04	5.20						
	036S077S04	0.86	J					
	036S077W04	5.70						
	036S078C04	8.00						
	036S078E04	3.70						
	036S078W04	2.40						
	036S079C04	0.98	J					
	036S079W04	0.44	J					
	036S081C04	0.46	J					
	036S081S03	2.50	J					
Cyanide (CN)				30	NA	39,000	117,000	40
	036S075E06	0.48	J					
	036S076E04	0.21	J					
Iron				23,000	69,000	480,000	1,440,000	***
	036S073C04	856.00						
	036S074C04	2230.00						
	036S074N04	106.00						
	036S074W04	893.00						
	036S075C04	616.00	J					
	036S075E06	32900.00	J	X				
	036S076E04	368.00	J					
	036S076W04	1190.00	J					
	036S077C04	2010.00	J					
	036S077N04	71.40	J					

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S077S04	68.00	J					
	036S077W04	795.00						
	036S078C04	2800.00						
	036S078E04	87.70	J					
	036S078W04	44.40						
	036S079C04	25.10						
	036S079W04	33.10	J					
	036S081C04	212.00	J					
	036S081S03	26.00						
	036S081W04	84.40						
Lead				400	1,200	920	2,760	***
	036S073C04	160.00						
	036S074C04	214.00						
	036S074N04	92.10						
	036S074W04	226.00						
	036S075C04	62.40	J					
	036S075E06	62.10	J					
	036S076E04	44.30	J					
	036S076W04	113.00	J					
	036S077C04	160.00	J					
	036S077N04	0.24	J					
	036S077S04	0.95	J					
	036S077W04	31.40						
	036S078C04	49.20						
	036S078E04	15.70	J					
	036S078W04	13.00						
	036S079C04	0.26	J					
	036S079W04	0.38	J					
	036S081C04	6.80	J					
	036S081S03	1.30						
	036S081W04	2.00						
Magnesium				Not Available				
	036S073C04	98.80	J					
	036S074C04	412.00	J					
	036S074N04	6.20	J					
	036S074W04	911.00	J					
	036S075C04	201.00	J					
	036S075E06	379.00	J					
	036S076E04	94.40	J					
	036S076W04	109.00	J					
	036S077C04	2050.00						
	036S077W04	160.00	J					
	036S078C04	662.00	J					
	036S078E04	8.60	J					
	036S078W04	4.40	J					
	036S079C04	4.20	J					
	036S079W04	10.90	J					
	036S081C04	13.00	J					
	036S081S03	4.30	J					

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S081W04	4.70	J					
Manganese				1,600	4,800	22,000	66,000	***
	036S073C04	16.40						
	036S074C04	69.10						
	036S074N04	2.80						
	036S074W04	26.40						
	036S075C04	24.40	J					
	036S075E06	987.00						
	036S076E04	21.30						
	036S076W04	37.30						
	036S077C04	154.00	J					
	036S077N04	0.47	J					
	036S077S04	4.10	J					
	036S077W04	18.00						
	036S078C04	32.80						
	036S078E04	3.40						
	036S078W04	1.40						
	036S079C04	0.58	J					
	036S079W04	0.89	J					
	036S081C04	2.80	J					
	036S081S03	0.25	J					
	036S081W04	0.35	J					
Mercury				3.4	10.2	26	78	2.1
	036S073C04	0.14						
	036S075C04	0.09						
	036S076E04	0.08						
	036S076W04	0.14						
	036S077C04	0.09						
	036S077W04	0.15						
Nickel				110	NA	28,000	84,000	130
	036S074C04	1.50	J					
	036S075E06	16.10						
	036S077C04	2.40	J					
Potassium				Not Available				
	036S074C04	158.00	J					
	036S075C04	65.70	J					
	036S075E06	211.00	J					
	036S076E04	39.20	J					
	036S076W04	26.10	J					
	036S077C04	366.00	J					
	036S077W04	60.30	J					
	036S078C04	167.00	J					
	036S078W04	15.80	J					
	036S079C04	39.50	J					
	036S081S03	40.40	J					
Selenium				390	1,170	10,000	30,000	5
	036S074N04	0.17	J					
	036S077C04	0.27	J					
Sodium				Not Available				

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S073C04	29.00	J					
	036S074C04	222.00	J					
	036S074N04	14.60	J					
	036S074W04	45.70	J					
	036S075C04	30.20	J					
	036S075E06	81.80	J					
	036S076E04	11.30	J					
	036S076W04	18.30	J					
	036S077C04	83.30	J					
	036S077N04	7.80	J					
	036S077S04	8.30	J					
	036S077W04	15.50	J					
	036S078C04	189.00	J					
	036S078E04	9.00	J					
	036S078W04	6.00	J					
	036S079C04	4.80	J					
	036S079W04	10.80	J					
	036S081C04	10.70	J					
	036S081S03	10.80	J					
	036S081W04	8.00	J					
Thallium*				5.2	15.6	67	201	Not Available
	036S077S04	0.46	J					
	036S079W04	0.47	J					
	036S081C04	0.47	J					
Vanadium				15	NA	7,400	22,200	980
	036S073C04	0.84	J					
	036S074C04	3.20	J					
	036S074W04	1.60	J					
	036S075E06	21.50		X				
	036S076W04	2.30	J					
	036S077C04	2.50	J					
	036S077S04	0.56						
	036S077W04	2.10	J					
	036S078C04	6.90	J					
	036S078W04	0.30	J					
Zinc				23,000	69,000	560,000	1,680,000	6,000
	036S073C04	33.00						
	036S074C04	81.10						
	036S074N04	1.70	J					
	036S074W04	62.30						
	036S075C04	44.00						
	036S075E06	29.90						
	036S076E04	56.40						
	036S076W04	53.40						
	036S077C04	95.30						
	036S077N04	2.00	J					
	036S077S04	2.50	J					
	036S077W04	23.80						
	036S078C04	28.40						

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	036S078E04	4.80						
	036S078W04	15.30						
	036S079C04	1.50	J					
	036S079W04	2.50	J					
	036S081C04	2.80	J					
	036S081S03	3.00	J					
	036S081W04	0.87	J					

Notes:
All concentrations and criteria are in milligrams per kilogram (mg/kg).
***Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs
or may be determined using TCLP in the event oily wastes are present.
* - Region 9 Preliminary Remedial Goals (October 2002) were used for SCTLs.

ITWP LINE DATA - SUBSURFACE SOIL
COMPARISON OF PESTICIDE/PCB DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
4,4'-DDD				4,600	13,800	18,000	54,000	4,000
	036S074C04	11.00	J					
4,4'-DDE				3,300	9,900	13,000	39,000	18,000
	036S074C04	88.00	J					
	036S077C04	140.00	J					
4,4'-DDT				3,300	9,900	13,000	39,000	11,000
	036S074C04	63.00	J					
	036S077C04	20.00						
Aroclor-1254				500	1,500	2,100	6,300	17,000
	036S077C04	30.00	J					
Aroclor-1260				500	1,500	2,100	6,300	17,000
	036S077C04	42.00						
Dieldrin				70	210	300	900	4
	036S078C04	1.60	J					
Endosulfan I	(use Endosulfan [alpha+beta] SCTL)			410,000	1,230,000	6,700,000	20,100,000	3,800
	036S074C04	2.00	J					
Endrin				21,000	63,000	340,000	1,020,000	1,000
	036S074C04	13.00						
	036S075E06	3.40	J					
	036S076W04	0.70	J					
	036S078C04	1.10	J					
Heptachlor epoxide				100	300	400	1,200	600
	036S074C04	1.00	J					
	036S074W04	2.60	J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

IWTP LINE DATA - SUBSURFACE SOIL
COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
Acenaphthylene			1,100,000	3,300,000	11,000,000	33,000,000	27,000
	036S074C04	1800.00					
Anthracene			18,000,000	54,000,000	260,000,000	780,000,000	2,500,000
	036S074C04	1000.00 J					
Benzo(a)anthracene			1,400	4,200	5,000	15,000	3,200
	036S074C04	4500.00	X	X			X
Benzo(a)pyrene			100	300	500	1,500	8,000
	036S074C04	4500.00	X	X	X	X	
Benzo(b)fluoranthene			1,400	4,200	4,800	14,400	10,000
	036S073C04	190.00 J					
	036S074C04	8300.00	X	X	X		
Benzo(g,h,i)perylene			2,300,000	6,900,000	41,000,000	123,000,000	32,000,000
	036S074C04	1900.00					
Chrysene			140,000	420,000	450,000	1,350,000	77,000
	036S074C04	4200.00					
Dibenz(a,h)anthracene			100	300	500	1,500	30,000
	036S074C04	800.00 J	X	X	X		
Fluoranthene			2,900,000	8,700,000	48,000,000	144,000,000	1,200,000
	036S074C04	6700.00					
Indeno(1,2,3-cd)pyrene			1,500	4,500	5,300	15,900	28,000
	036S074C04	1700.00	X				
Phenanthrene			2,000,000	6,000,000	30,000,000	90,000,000	250,000
	036S074C04	3100.00					
Pyrene			2,200,000	6,600,000	37,000,000	111,000,000	880,000
	036S074C04	9300.00					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

IWTP LINE DATA - SUBSURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
1,1,1-Trichloroethane				400,000	1,200,000	3,300,000	9,900,000	1,900
	036S075E06	6.00	J					
Acetone				780,000	2,340,000	5,500,000	16,500,000	2,800
	036S073C04	230.00						
	036S074C04	200.00						
	036S074N04	210.00	J					
	036S074W04	61.00						
	036S075E06	160.00						
	036S077W04	22.00						
	036S078C04	94.00						
	036S078W04	38.00						
	036S079C04	11.00						
	036S081C04	23.00						
Methylene chloride				16,000	48,000	23,000	69,000	20
	036S074C04	7.00	J					
	036S077C04	6.00	J					
	036S078C04	5.00	J					
	036S078W04	4.00	J					
	036S079C04	3.00	J					
	036S079W04	5.00	J					
	036S081C04	4.00	J					
Tetrachloroethene				8,900	26,700	17,000	51,000	30
	036S075E06	19.00						
Toluene				380,000	1,140,000	2,600,000	7,800,000	500
	036S073C04	18.00	J					
Trichloroethene				6,000	18,000	8,500	25,500	30
	036S076W04	6.00	J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

RI Results

Surface Soil

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Aluminum				72,000	216,000	NA	NA	***
	038S000102	13500.00						
	038S000301	121.00						
	038S000402	339.00						
	038S000501	661.00						
	038S000701	800.00						
	038S000801	139.00						
	038S000901	132.00						
	038S001001	435.00						
	038S001101	71.20						
	038S001201	305.00						
	038S001301	148.00						
	038S001401	784.00						
	038S001501	450.00						
	038S001601	9860.00						
	038S001701	4220.00						
	038S001801	4180.00						
	038S001901	4580.00						
	038S001902	3090.00						
	038S002201	1000.00						
	038S002501	104.00						
	038S002601	10300.00						
	038S002702	81.00						
	038S002801	921.00						
	038S002901	1540.00						
	038S003001	214.00	J					
	038S003101	207.00	J					
	038S003201	858.00						
	038S003301	21200.00	J					
	038S003401	19000.00	J					
	038S003501	12100.00						
	038S003601	24300.00						
	038S003701	16200.00						
	038S004102	179.00						
	038S004202	1330.00						
Antimony				26	78	240	720	5
	038S002201	3.80						
Arsenic	*Note: RC = 1.56 mg/kg			0.8	2.4	3.7	11.1	29
	038S000102	1.60		X				
	038S000301	1.20		X				
	038S000701	2.40		X				
	038S000901	0.52						
	038S001201	0.81	J	X				
	038S001301	0.72						
	038S001401	1.90		X				
	038S001501	0.28						
	038S001601	2.20		X				

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S001701	1.00		X				
	038S001901	1.90		X				
	038S001902	0.83		X				
	038S002201	1.60		X				
	038S002601	4.20		X	X	X		
	038S002901	1.00		X				
	038S003201	3.00		X	X			
	038S003301	3.90		X	X	X		
	038S003401	2.40		X				
	038S003501	21.10		X	X	X	X	
	038S003601	7.20		X	X	X		
	038S003701	3.70	J	X	X			
	038S004102	1.40		X				
	038S004202	0.91		X				
Barium				110	NA	87,000	261,000	1,600
	038S000102	68.70						
	038S000301	1.20						
	038S000402	3.20						
	038S000501	23.80						
	038S000701	17.20						
	038S000801	2.00						
	038S000901	3.90						
	038S001001	11.90						
	038S001201	6.90						
	038S001301	2.80						
	038S001401	19.20						
	038S001501	6.30						
	038S001601	4.70						
	038S001701	16.90						
	038S001801	11.70						
	038S001901	8.30						
	038S001902	13.60						
	038S002201	12.40						
	038S002501	1.00						
	038S002601	32.70						
	038S002702	0.62						
	038S002801	3.00						
	038S002901	18.00						
	038S003101	1.60						
	038S003201	18.00						
	038S003301	11.70						
	038S003401	9.60						
	038S003501	89.50						
	038S003601	13.30	J					
	038S004102	2.00						
	038S004202	18.90						
Beryllium				120	360	800	2,400	63

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S001001	0.27						
	038S001401	0.18						
	038S001601	0.15						
	038S002201	0.14						
	038S003401	0.25						
	038S003501	0.36	J					
Cadmium				75	NA	1,300	3,900	8
	038S000701	3.40						
	038S001001	4.00						
	038S001201	1.80						
	038S001301	2.90						
	038S001401	18.60						X
	038S001501	1.40						
	038S001601	0.60						
	038S001801	2.10						
	038S002201	0.63						
	038S002901	2.00						
	038S003301	1.20						
	038S004202	1.40						
Calcium				Not Available				
	038S000102	50300.00						
	038S000301	477.00						
	038S000402	2970.00						
	038S000501	6120.00						
	038S000701	4740.00						
	038S000801	1450.00						
	038S000901	402.00						
	038S001001	2220.00						
	038S001101	559.00						
	038S001201	2990.00						
	038S001301	712.00						
	038S001401	972.00						
	038S001501	6320.00						
	038S001601	1810.00	J					
	038S001701	22300.00	J					
	038S001801	5190.00	J					
	038S001901	6600.00	J					
	038S001902	8840.00	J					
	038S002201	1990.00	J					
	038S002501	454.00						
	038S002601	7340.00						
	038S002702	979.00						
	038S002801	314.00						
	038S002901	3210.00						
	038S003001	1160.00						
	038S003101	1370.00						
	038S003201	2330.00						

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S003301	1370.00						
	038S003401	4390.00						
	038S003501	18400.00	J					
	038S003701	2380.00	J					
	038S004102	115.00						
	038S004202	1440.00						
Chromium				210	630	420	1,260	38
	038S000102	22.10						
	038S000301	3.70						
	038S000402	4.70						
	038S000501	10.00						
	038S000701	28.60						
	038S000801	2.40						
	038S000901	6.90						
	038S001001	103.00						X
	038S001101	9.40						
	038S001201	80.20						X
	038S001301	713.00		X	X	X		X
	038S001401	665.00		X	X	X		X
	038S001501	17.50						
	038S001601	12.60						
	038S001701	53.40						X
	038S001801	291.00		X				X
	038S001901	6.60						
	038S001902	6.30						
	038S002201	10.20						
	038S002501	7.00						
	038S002601	11.50						
	038S002702	6.00						
	038S002801	2.00						
	038S002901	15.00						
	038S003001	2.10	J					
	038S003101	4.20	J					
	038S003201	5.00						
	038S003301	18.30	J					
	038S003401	21.10	J					
	038S003501	11.90						
	038S003601	25.40						
	038S003701	15.00						
	038S004202	6.20						
Cobalt				4,700	14,100	110,000	330,000	***
	038S000701	2.60						
	038S003001	6.00						
Copper				110	NA	76,000	228,000	***
	038S000102	9.20						
	038S000301	10.60						
	038S000402	21.70						

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000501	30.80						
	038S000701	31.60						
	038S000801	4.60						
	038S000901	19.00						
	038S001001	13.50						
	038S001201	13.20						
	038S001301	9.80						
	038S001401	155.00		X				
	038S001501	9.20						
	038S001601	11.80						
	038S001701	9.60						
	038S001801	41.20						
	038S001901	23.20						
	038S001902	31.40						
	038S002201	6.50						
	038S002501	3.00						
	038S002601	33.40						
	038S002702	19.00						
	038S002801	8.00						
	038S002901	26.00						
	038S003001	2.20						
	038S003101	27.20						
	038S003201	131.00		X				
	038S003301	22.00						
	038S003401	6.60						
	038S003501	46.40						
	038S003601	10.60						
	038S003701	9.30						
	038S004102	308.00		X				
	038S004202	14.90						
Cyanide (CN)				30	NA	39,000	117,000	40
	038S001101	2.20						
	038S003701	1.10	J					
Iron				23,000	69,000	480,000	1,440,000	***
	038S000102	4260.00						
	038S000301	476.00						
	038S000402	976.00						
	038S000501	1950.00						
	038S000701	9530.00						
	038S000801	210.00						
	038S000901	893.00						
	038S001001	2410.00						
	038S001101	92.40						
	038S001201	896.00						
	038S001301	442.00						
	038S001401	3260.00						
	038S001501	551.00						

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S001601	7900.00						
	038S001701	3790.00						
	038S001902	2480.00						
	038S002201	6290.00						
	038S002501	540.00						
	038S002601	6860.00						
	038S002702	312.00						
	038S002801	972.00						
	038S002901	2820.00						
	038S003001	179.00						
	038S003101	510.00						
	038S003201	3710.00						
	038S003301	12600.00						
	038S003401	14100.00						
	038S003501	160.00						
	038S003601	18800.00						
	038S003701	9800.00						
	038S004102	471.00						
	038S004202	1540.00						
Lead				400	1,200	920	2,760	***
	038S000102	64.20						
	038S000301	20.10						
	038S000402	151.00						
	038S000501	119.00						
	038S000701	143.00						
	038S000801	30.10						
	038S000901	81.00						
	038S001001	98.40						
	038S001101	9.20						
	038S001201	98.60						
	038S001301	95.40						
	038S001401	270.00						
	038S001501	24.80						
	038S001601	40.10						
	038S001701	70.50						
	038S001801	148.00						
	038S001901	67.00						
	038S001902	60.90						
	038S002201	83.80						
	038S002501	28.00						
	038S002601	119.00						
	038S002702	17.00						
	038S002801	23.00						
	038S002901	139.00						
	038S003001	28.90	J					
	038S003101	30.40	J					
	038S003201	273.00						

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S003301	67.10	J					
	038S003401	22.00	J					
	038S003501	125.00						
	038S003601	38.30						
	038S003701	51.90						
	038S004102	5.20						
	038S004202	70.00						
Magnesium				Not Available				
	038S000102	7210.00						
	038S000301	60.40						
	038S000701	309.00						
	038S000801	61.60						
	038S000901	41.50						
	038S001001	140.00						
	038S001301	47.40						
	038S001401	108.00						
	038S001501	332.00						
	038S001601	107.00						
	038S001701	288.00						
	038S001801	218.00						
	038S001901	223.00						
	038S001902	193.00						
	038S002201	256.00						
	038S002501	11.00						
	038S002601	325.00						
	038S002702	21.00						
	038S002801	87.00						
	038S002901	163.00						
	038S003001	56.30						
	038S003101	88.10						
	038S003201	427.00						
	038S003301	213.00						
	038S003401	360.00						
	038S003501	562.00	J					
	038S003601	115.00	J					
	038S003701	233.00						
	038S004102	94.10						
	038S004202	189.00						
Manganese				1,600	4,800	22,000	66,000	***
	038S000102	337.00						
	038S000301	1.30						
	038S000501	11.80						
	038S000701	27.60						
	038S000801	2.50						
	038S001301	1.90						
	038S001401	11.20						
	038S001501	4.40						

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S001601	14.50						
	038S001701	34.40						
	038S001801	11.70						
	038S001901	28.80						
	038S001902	23.50						
	038S002201	68.50						
	038S002501	7.00						
	038S002601	244.00						
	038S002702	2.00						
	038S002801	12.00						
	038S002901	18.00						
	038S003001	2.10	J					
	038S003101	3.50	J					
	038S003201	27.00						
	038S003301	30.90	J					
	038S003401	30.90	J					
	038S003501	169.00						
	038S003601	69.50						
	038S003701	174.00						
	038S004102	4.00						
	038S004202	28.50						
Mercury				3.4	10.2	26	78	2.1
	038S000102	0.04						
	038S000402	0.12						
	038S000501	0.07						
	038S000701	0.05						
	038S000901	0.05						
	038S001001	0.10						
	038S001201	0.12						
	038S001301	0.05						
	038S001401	0.07						
	038S001501	0.03						
	038S001601	0.05						
	038S001701	0.05						
	038S001801	0.12						
	038S001901	0.06						
	038S001902	0.05						
	038S002601	0.15	J					
	038S003501	0.23						
	038S004202	0.10						
Nickel				110	NA	28,000	84,000	130
	038S000701	2.90	J					
	038S001801	6.80						
	038S002601	4.50						
Potassium				Not Available				
	038S000102	1460.00						
	038S001601	110.00						

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S001801	106.00					
Selenium			390	1,170	10,000	30,000	5
	038S001401	0.21					
Silver			390	1,170	9,100	27,300	17
	038S004102	1.30					
Sodium			Not Available				
	038S000102	302.00					
	038S000402	78.20					
	038S000501	153.00					
	038S000901	23.70					
	038S001001	31.20					
	038S001401	53.20					
	038S001501	39.30					
	038S001601	43.50					
	038S001701	71.50					
	038S001901	84.30					
	038S001902	94.10					
	038S002201	21.60					
	038S002601	85.70					
	038S002901	40.00					
	038S003001	93.40					
	038S003101	57.20					
	038S003301	72.30					
	038S003401	84.70					
	038S003501	163.00 J					
	038S003601	40.80 J					
	038S003701	80.00					
	038S004102	55.90 B					
Vanadium			15	NA	7,400	22,200	980
	038S000102	16.70	X				
	038S000701	3.70					
	038S001001	5.40					
	038S001601	16.60	X				
	038S001701	6.90					
	038S001801	7.50					
	038S001901	7.70					
	038S001902	5.00					
	038S002201	14.50					
	038S002601	16.30	X				
	038S002901	4.00					
	038S003201	4.00					
	038S003301	31.70	X				
	038S003401	33.40	X				
	038S003501	18.00	X				
	038S003601	39.80	X				
	038S003701	26.20	X				
	038S004202	2.90					

RI RESULTS - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Zinc			23,000	69,000	560,000	1,680,000	6,000
	038S000102	309.00					
	038S000301	16.90					
	038S000402	26.40					
	038S000501	40.00					
	038S000701	401.00					
	038S000801	9.40					
	038S000901	40.60					
	038S001001	74.40					
	038S001201	56.70					
	038S001301	54.80					
	038S001401	435.00					
	038S001501	32.60					
	038S001601	17.90					
	038S001701	32.00					
	038S001801	85.20					
	038S001901	30.80					
	038S001902	31.90					
	038S002201	41.20					
	038S002501	9.00					
	038S002601	126.00					
	038S002702	7.00					
	038S002801	21.00					
	038S002901	85.00					
	038S003001	8.50					
	038S003101	23.60					
	038S003201	88.00					
	038S003301	48.30					
	038S003401	11.00					
	038S003501	98.20					
	038S003601	215.00					
	038S003701	35.70					
	038S004102	126.00					
	038S004202	50.40					

Notes:
All concentrations and criteria are in milligrams per kilogram (mg/kg).
***Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

RI RESULTS - SURFACE SOIL
COMPARISON OF PESTICIDE/PCB DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
4,4'-DDD				4,600	13,800	18,000	54,000	4,000
	038S001301	6.30	J					
	038S001801	77.00						
4,4'-DDE				3,300	9,900	13,000	39,000	18,000
	038S001301	5.80						
	038S001701	3.90	J					
	038S001801	900.00	J					
	038S003701	4.90						
4,4'-DDT				3,300	9,900	13,000	39,000	11,000
	038S001701	3.50	J					
alpha-Chlordane	(use Chlordane SCTL)			3,100	9,300	12,000	36,000	9,600
	038S001301	2.60						
Aroclor-1254	(use PCB mixture SCTL)			500	1,500	2,100	6,300	17,000
	038S001701	100.00						
	038S001801	16000.00	J	X	X	X	X	
Aroclor-1260	(use PCB mixture SCTL)			500	1,500	2,100	6,300	17,000
	038S001201	58.00						
	038S001301	55.00						
	038S003701	570.00	J	X				
Dieldrin				70	210	300	900	4
	038S003701	5.40						X
Endosulfan I	(use Endosulfan SCTL)			410,000	1,230,000	6,700,000	20,100,000	3,800
	038S001801	51.00	J					
Endrin aldehyde	(use Endrin SCTL)			21,000	63,000	340,000	1,020,000	1,000
	038S001801	37.00	J					
	038S003701	29.00	J					
gamma-Chlordane	(use Chlordane SCTL)			3,100	9,300	12,000	36,000	9,600
	038S001701	3.40	J					
	038S001801	630.00	J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

RI RESULTS - SURFACE SOIL
COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
1,2,4-Trichlorobenzene				560,000	1,680,000	7,500,000	22,500,000	5,300
	038S001301	48.00	J					
	038S001401	88.00	J					
1,2-Dichlorobenzene				650,000	1,950,000	4,600,000	13,800,000	17,000
	038S001301	510.00						
	038S001401	610.00						
1,4-Dichlorobenzene				6,000	18,000	9,000	27,000	2,200
	038S001301	53.00	J					
	038S001401	100.00	J					
2,4-Dimethylphenol				910,000	2,730,000	9,800,000	29,400,000	1,700
	038S001001	160.00	J					
	038S001401	380.00						
2-Methylnaphthalene				80,000	240,000	560,000	1,680,000	6,100
	038S001001	100.00	J					
	038S001401	53.00	J					
	038S001701	270.00	J					
2-Methylphenol (o-Cresol)				2,400,000	7,200,000	28,000,000	84,000,000	300
	038S001301	42.00	J					
	038S001401	340.00	J					X
4-Methylphenol (p-Cresol)				250,000	750,000	3,000,000	9,000,000	30
	038S001401	740.00						X
Acenaphthylene				1,100,000	3,300,000	11,000,000	33,000,000	27,000
	038S000102	85.00	J					
	038S002601	89.00	J					
	038S003201	89.00	J					
	038S003401	92.00	J					
Anthracene				18,000,000	54,000,000	260,000,000	780,000,000	2,500,000
	038S002601	100.00	J					
	038S003201	160.00	J					
Benzo(a)anthracene				1,400	4,200	5,000	15,000	3,200
	038S000102	190.00	J					
	038S000701	61.00	J					
	038S001001	70.00	J					
	038S001401	100.00	J					
	038S001901	78.00	J					
	038S002601	140.00	J					
	038S002901	120.00	J					
	038S003201	480.00	J					
	038S003401	110.00	J					
	038S003501	230.00	J					
Benzo(a)pyrene				100	300	500	1,500	8,000
	038S000102	200.00	J	X				
	038S000701	46.00	J					
	038S001401	67.00	J					
	038S001901	77.00	J					
	038S002601	160.00	J	X				
	038S002901	200.00	J	X				
	038S003201	690.00	J	X	X	X		
	038S003301	41.00	J					
	038S003401	150.00	J	X				
	038S003501	380.00	J	X	X			
	038S003701	260.00	J	X				
Benzo(b)fluoranthene				1,400	4,200	4,800	14,400	10,000
	038S000102	280.00	J					
	038S000701	62.00	J					
	038S000801	43.00	J					
	038S001001	56.00	J					
	038S001401	200.00	J					
	038S001901	200.00	J					
	038S002901	370.00	J					
	038S003101	48.00	J					
	038S003201	580.00	J					

RI RESULTS - SURFACE SOIL
COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S003301	45.00	J					
	038S003401	160.00	J					
	038S003701	500.00	J					
	038S004202	55.00	J					
Benzo(g,h,i)perylene				2,300,000	6,900,000	41,000,000	123,000,000	32,000,000
	038S000102	130.00	J					
	038S002601	140.00	J					
	038S002901	300.00	J					
	038S003101	35.00	J					
	038S003201	530.00	J					
	038S003301	39.00	J					
	038S003401	120.00	J					
	038S003501	290.00	J					
	038S003701	360.00	J					
Benzo(k)fluoranthene				15,000	45,000	52,000	156,000	25,000
	038S000102	220.00	J					
	038S000701	51.00	J					
	038S000801	53.00	J					
	038S001001	38.00	J					
	038S001401	70.00	J					
	038S001901	92.00	J					
	038S002601	190.00	J					
	038S002702	110.00	J					
	038S002901	290.00	J					
	038S003201	720.00	J					
	038S003501	480.00	J					
	038S003701	360.00	J					
bis(2-Ethylhexyl)phthalate (BEHP)				76,000	228,000	280,000	840,000	3,600,000
	038S000102	360.00	J					
	038S000301	74.00	J					
Carbazole				53,000	159,000	190,000	570,000	600
	038S002601	38.00	J					
Chrysene				140,000	420,000	450,000	1,350,000	77,000
	038S000102	220.00	J					
	038S000701	71.00	J					
	038S000801	35.00	J					
	038S001001	85.00	J					
	038S001401	140.00	J					
	038S001901	120.00	J					
	038S002201	73.00	J					
	038S002601	160.00	J					
	038S002702	70.00	J					
	038S002901	110.00	J					
	038S003201	540.00	J					
	038S003401	120.00	J					
	038S003501	420.00	J					
	038S003701	240.00	J					
Dibenz(a,h)anthracene				100	300	500	1,500	30,000
	038S000102	100.00	J					
	038S001401	57.00	J					
	038S002901	180.00	J	X				
	038S003201	230.00	J	X				
Dibenzofuran				280,000	840,000	5,000,000	15,000,000	15,000
	038S001001	140.00	J					
Fluoranthene				2,900,000	8,700,000	48,000,000	144,000,000	1,200,000
	038S000102	240.00	J					
	038S000701	60.00	J					
	038S000801	38.00	J					
	038S001001	52.00	J					
	038S001401	140.00	J					
	038S001901	74.00	J					
	038S002601	170.00	J					

RI RESULTS - SURFACE SOIL
COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S002702	140.00	J					
	038S002901	97.00	J					
	038S003201	620.00	J					
	038S003401	160.00	J					
	038S003501	280.00	J					
	038S003701	280.00	J					
Indeno(1,2,3-cd)pyrene				1,500	4,500	5,300	15,900	28,000
	038S000102	190.00	J					
	038S002601	130.00	J					
	038S002901	190.00	J					
	038S003201	570.00	J					
	038S003301	38.00	J					
	038S003501	290.00	J					
	038S003701	210.00	J					
Naphthalene				40,000	120,000	270,000	810,000	1,700
	038S001001	46.00	J					
	038S001401	330.00	J					
	038S001701	640.00	J					
Phenanthrene				2,000,000	6,000,000	30,000,000	90,000,000	250,000
	038S000701	55.00	J					
	038S001001	260.00	J					
	038S001401	190.00	J					
	038S001701	86.00	J					
	038S002601	49.00	J					
	038S003201	270.00	J					
Phenol				900,000	NA	390,000,000	1,170,000,000	50
	038S001201	39.00	J					
	038S001301	59.00	J					X
	038S001401	990.00						X
	038S001501	130.00	J					X
	038S001801	930.00	J					X
	038S001901	370.00	J					X
	038S001902	600.00	J					X
Pyrene				2,200,000	6,600,000	37,000,000	111,000,000	880,000
	038S000102	240.00	J					
	038S000701	87.00	J					
	038S000801	43.00	J					
	038S001001	84.00	J					
	038S001401	150.00	J					
	038S001901	100.00	J					
	038S002601	210.00	J					
	038S002702	110.00	J					
	038S002901	120.00	J					
	038S003201	480.00	J					
	038S003301	40.00	J					
	038S003401	170.00	J					
	038S003501	270.00	J					
	038S003701	190.00	J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

RI RESULTS - SURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
1,1,1-Trichloroethane			400,000	1,200,000	3,300,000	9,900,000	1,900
	038S000701	21.00					
	038S000901	17.00					
	038S001001	240.00					
	038S001201	1.00 J					
	038S001301	5.00 J					
	038S001401	64.00					
	038S001501	5.00 J					
	038S001701	4.00 J					
	038S001801	5.00 J					
	038S001901	5.00 J					
	038S001902	4.00 J					
	038S002801	2.00 J					
1,1-Dichloroethane			290,000	870,000	2,000,000	6,000,000	200
	038S000701	12.00					
	038S000901	4.00 J					
	038S001001	11.00 J					
	038S001401	6.00 J					
1,2-Dichloroethane			500	1,500	700	2,100	10
	038S000501	5.00 J					
	038S001401	27.00 J					X
1,2-Dichloroethene (total)*			19,000	57,000	130,000	390,000	400
	038S000701	56.00					
	038S000901	21.00					
	038S001301	1.00 J					
2-Butanone (MEK)			3,100,000	9,300,000	21,000,000	63,000,000	17,000
	038S000402	4.00 J					
	038S001101	5.00 J					
	038S001401	22.00 J					
	038S001501	6.00 J					
	038S001601	3.00 J					
	038S001901	7.00 J					
	038S001902	10.00 J					
	038S002201	5.00 J					
4-Methyl-2-Pentanone (MIBK)			220,000	660,000	1,500,000	4,500,000	2,600
	038S003201	38.00					
Acetone			780,000	2,340,000	5,500,000	16,500,000	2,800
	038S001001	91.00					
	038S001101	41.00					
	038S001401	76.00					
	038S001501	54.00					
Benzene			1,100	3,300	1,600	4,800	7
	038S000501	3.00 J					
	038S003201	2.00 J					
Carbon tetrachloride			400	1,200	600	1,800	40
	038S000102	2.00 J					
	038S000102	2.00 J					
	038S000102	2.00 J					

RI RESULTS - SURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000501	2.00 J					
	038S001301	3.00 J					
	038S001801	1.00 J					
	038S002201	1.00 J					
Chlorobenzene			30,000	120,000	200,000	600,000	1,300
	038S001301	1.00 J					
Chloroform			400	1,200	500	1,500	30
	038S000701	3.00 J					
	038S000901	5.00 J					
	038S001301	2.00 J					
	038S001401	47.00 J					X
	038S001501	1.00 J					
Ethylbenzene			1,100,000	3,300,000	8,400,000	25,200,000	600
	038S000102	1.00 J					
	038S000102	1.00 J					
	038S000102	1.00 J					
	038S000501	4.00 J					
	038S001701	1.00 J					
	038S001801	1.00 J					
	038S002201	3.00 J					
	038S002501	1.00 J					
	038S002901	2.00 J					
	038S003201	2.00 J					
Methylene chloride			16,000	48,000	23,000	69,000	20
	038S001801	9.00 J					
Tetrachloroethene			8,900	26,700	17,000	51,000	30
	038S000501	2.00 J					
	038S000701	17.00					
	038S000901	13.00					
	038S001001	94.00					X
	038S001301	43.00					X
	038S001401	370.00					X
	038S001501	8.00 J					
	038S001701	2.00 J					
	038S001801	15.00					
	038S001901	7.00 J					
	038S001902	5.00 J					
	038S002201	1.00 J					
	038S003201	4.00 J					
	038S004202	6.00 J					
Toluene			380,000	1,140,000	2,600,000	7,800,000	500
	038S000102	10.00 J					
	038S000102	10.00 J					
	038S000102	10.00 J					
	038S000402	2.00 J					
	038S000501	27.00					
	038S000701	13.00					
	038S000801	2.00 J					
	038S000901	140.00					

RI RESULTS - SURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S001001	8.00 J					
	038S001201	29.00					
	038S001301	110.00					
	038S001401	29.00 J					
	038S001501	8.00 J					
	038S001601	4.00 J					
	038S001701	16.00 J					
	038S001801	15.00 J					
	038S002201	80.00					
	038S002601	6.00 J					
	038S002801	4.00 J					
	038S002901	10.00 J					
	038S003201	21.00					
	038S003301	2.00 J					
	038S003501	8.00 J					
	038S003701	2.00 J					
	038S004202	21.00					
Trichloroethene			6,000	18,000	8,500	25,500	30
	038S000301	2.00 J					
	038S000701	110.00					X
	038S000901	36.00					X
	038S001001	23.00 J					
	038S001201	17.00					
	038S001301	34.00					X
	038S001401	390.00					X
	038S001501	14.00					
	038S001801	4.00 J					
	038S001901	10.00 J					
	038S001902	6.00 J					
	038S002201	2.00 J					
	038S002901	1.00 J					
	038S004202	9.00 J					
Xylene (Total)			5,900,000	17,700,000	40,000,000	120,000,000	200
	038S001801	16.00 J					
	038S001901	8.00					
	038S002501	3.00 J					
	038S002801	1.00 J					
	038S002901	4.00 J					
	038S003201	7.00 J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).
* - No SCTL for 1,2-Dichloroethene (total) was listed. The SCTL for cis-1,2-Dichloroethene was used since it was less than the SCTL for trans-1,2-Dichloroethene.

RI Results

Subsurface Soil

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Aluminum				72,000	216,000	NA	NA	***
	038S000104	181.00						
	038S000106	5610.00						
	038S000303	263.00						
	038S000305	351.00						
	038S000404	134.00						
	038S000503	86.50						
	038S000505	90.80						
	038S000703	741.00						
	038S000705	294.00						
	038S000803	353.00						
	038S000804	388.00						
	038S000903	97.30						
	038S001003	164.00						
	038S001004	51.80						
	038S001103	57.50						
	038S001104	114.00						
	038S001203	166.00						
	038S001204	132.00						
	038S001303	146.00						
	038S001304	78.40						
	038S001403	220.00						
	038S001405	88.60						
	038S001503	326.00						
	038S001603	710.00						
	038S001605	137.00	J					
	038S001703	662.00						
	038S001705	254.00						
	038S001803	469.00						
	038S001805	1010.00						
	038S002203	518.00						
	038S002403	684.00						
	038S002503	69.00						
	038S002603	7310.00						
	038S002605	2730.00						
	038S002704	77.00						
	038S002803	1090.00						
	038S003003	69.70	J					
	038S003103	160.00	J					
	038S003203	185.00						
	038S003205	52.00						
	038S003303	643.00	J					
	038S003403	3650.00						
	038S003503	299.00						
	038S003603	339.00						
	038S003703	1980.00						
	038S004104	43.40						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S004106	24.90					
	038S004204	1500.00					
	038S004206	368.00					
Antimony			26	78	240	720	5
	038S003703	6.10					X
Arsenic	*Note: RC = 1.56 mg/kg		0.8	2.4	3.7	11.1	29
	038S000106	1.20	X				
	038S000703	2.20	X				
	038S000705	0.71					
	038S001203	1.70	X				
	038S001204	15.60	X	X	X	X	
	038S001303	3.70	X	X			
	038S001304	3.20	X	X			
	038S001403	1.30	X				
	038S001405	0.38					
	038S001503	0.66					
	038S001603	0.60					
	038S001703	0.32					
	038S001803	1.20	X				
	038S001805	1.10	X				
	038S002603	3.10	X	X			
	038S002605	7.50	X	X	X		
	038S003205	0.51					
	038S003403	0.60					
	038S003503	3.50	X	X			
	038S003603	8.20	X	X	X		
	038S003703	0.93	X				
	038S004204	1.20	X				
Barium			110	NA	87,000	261,000	1,600
	038S000104	2.60					
	038S000106	10.20					
	038S000303	2.40					
	038S000305	5.00					
	038S000503	3.20					
	038S000505	2.00					
	038S000703	14.30					
	038S000705	26.50					
	038S000803	5.10					
	038S000804	2.40					
	038S000903	1.90					
	038S001003	4.60					
	038S001203	19.20					
	038S001204	7.70					
	038S001303	35.90					
	038S001304	4.50					
	038S001403	8.10					
	038S001405	2.80					

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S001503	3.90						
	038S001603	9.00						
	038S001605	2.30						
	038S001703	2.40						
	038S001705	2.40						
	038S001803	10.10						
	038S001805	28.80						
	038S002203	2.80						
	038S002403	6.00						
	038S002603	21.30						
	038S002605	21.70						
	038S002704	1.00						
	038S002803	6.00						
	038S003003	0.58						
	038S003103	1.20						
	038S003203	5.00						
	038S003205	0.62						
	038S003303	1.70						
	038S003403	13.60						
	038S003503	8.00	J					
	038S003603	4.50						
	038S004104	0.61						
	038S004204	16.70						
	038S004206	9.90						
Cadmium				75	NA	1,300	3,900	8
	038S000703	1.50						
	038S000803	2.00						
	038S001003	1.10						
	038S001104	6.20						
	038S001203	1.30						
	038S001303	2.00						
	038S001403	4.60						
	038S001405	2.10						
	038S001503	0.74						
	038S001603	4.20						
	038S001605	0.74						
	038S001803	0.71						
	038S002803	1.00						
	038S003603	0.98						
Calcium				Not Available				
	038S000104	233.00						
	038S000106	20700.00						
	038S000303	2590.00						
	038S000305	3950.00						
	038S000404	277.00						
	038S000503	894.00						
	038S000505	1300.00						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000703	2660.00						
	038S000705	608.00						
	038S000803	955.00						
	038S000804	4820.00						
	038S000903	113.00						
	038S001003	752.00						
	038S001004	133.00						
	038S001103	392.00						
	038S001104	864.00						
	038S001203	714.00						
	038S001204	287.00						
	038S001303	192.00						
	038S001304	161.00						
	038S001403	438.00						
	038S001405	236.00						
	038S001503	3440.00						
	038S001603	2460.00						
	038S001605	282.00						
	038S001703	2480.00	J					
	038S001705	1380.00	J					
	038S001803	947.00	J					
	038S001805	1950.00	J					
	038S002203	2530.00	J					
	038S002403	1260.00						
	038S002503	656.00						
	038S002603	28500.00						
	038S002605	2660.00						
	038S002704	229.00						
	038S002803	1990.00						
	038S003003	155.00						
	038S003103	603.00						
	038S003203	1660.00						
	038S003205	194.00						
	038S003303	3500.00						
	038S003403	3140.00						
	038S003503	213.00	J					
	038S003603	239.00	J					
	038S003703	1930.00	J					
	038S004104	63.10						
	038S004106	36.90						
	038S004204	1710.00						
	038S004206	347.00						
Chromium				210	630	420	1,260	38
	038S000106	7.10						
	038S000303	3.90						
	038S000305	3.50						
	038S000404	2.60						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000703	12.80					
	038S000705	4.90					
	038S000803	6.00					
	038S000804	3.20					
	038S000903	2.30					
	038S001003	31.50					
	038S001004	5.40					
	038S001103	10.50					
	038S001104	13.20					
	038S001203	13.30					
	038S001204	19.40					
	038S001303	553.00	X		X		X
	038S001304	296.00	X				X
	038S001403	331.00	X				X
	038S001405	155.00					X
	038S001503	12.00					
	038S001603	58.80					X
	038S001605	10.50					
	038S001703	17.30					
	038S001705	8.80					
	038S001803	48.50					X
	038S001805	87.80					X
	038S002203	2.20					
	038S002403	4.00					
	038S002503	9.00					
	038S002603	8.80					
	038S002605	5.20					
	038S002704	6.00					
	038S002803	32.00					
	038S003003	1.70 J					
	038S003103	2.90 J					
	038S003203	3.00					
	038S003205	11.00					
	038S003303	1.90 J					
	038S003403	4.20 J					
	038S003703	3.40					
	038S004204	4.00					
Cobalt			4,700	14,100	110,000	330,000	***
	038S000703	5.60					
Copper			110	NA	76,000	228,000	***
	038S000104	13.10					
	038S000106	13.80					
	038S000303	8.30					
	038S000305	8.10					
	038S000404	21.80					
	038S000503	27.60					
	038S000505	8.10					

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000703	86.00					
	038S000705	38.40					
	038S000803	13.40					
	038S000804	3.40					
	038S000903	6.40					
	038S001003	3.60					
	038S001004	3.40					
	038S001203	112.00	X				
	038S001204	29.80					
	038S001303	73.20					
	038S001304	60.10					
	038S001403	390.00	X				
	038S001405	43.00					
	038S001503	44.00					
	038S001603	12.10					
	038S001605	1.90					
	038S001703	5.50					
	038S001705	9.00					
	038S001803	33.60					
	038S001805	51.40					
	038S002203	2.40					
	038S002403	4.00					
	038S002603	177.00	X				
	038S002605	102.00					
	038S002704	27.00					
	038S002803	20.00					
	038S003003	7.40					
	038S003103	43.80					
	038S003203	45.00					
	038S003205	8.00					
	038S003303	19.20					
	038S003403	8.40					
	038S003503	7.80					
	038S003603	10.20					
	038S003703	5.40					
	038S004104	71.40					
	038S004106	11.40					
	038S004204	14.70					
	038S004206	3.70					
Cyanide (CN)			30	NA	39,000	117,000	40
	038S003503	1.00 J					
	038S003603	1.00 J					
	038S003703	1.10 J					
	038S004104	1.00					
	038S004106	1.10					
	038S004204	1.00					
Iron			23,000	69,000	480,000	1,440,000	***

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S000104	499.00						
	038S000106	3490.00						
	038S000303	433.00						
	038S000305	724.00						
	038S000404	1140.00						
	038S000503	1160.00						
	038S000505	466.00						
	038S000703	14100.00						
	038S000705	3600.00						
	038S000803	1730.00						
	038S000804	483.00						
	038S000903	322.00						
	038S001003	721.00						
	038S001004	69.90						
	038S001103	77.20						
	038S001104	153.00						
	038S001203	2340.00						
	038S001204	1610.00						
	038S001303	2310.00						
	038S001304	453.00						
	038S001403	5320.00						
	038S001405	525.00						
	038S001503	1090.00						
	038S001603	1590.00	J					
	038S001605	210.00	J					
	038S001703	922.00						
	038S001705	516.00						
	038S001803	2690.00						
	038S001805	3320.00						
	038S002203	968.00						
	038S002403	4280.00						
	038S002503	122.00						
	038S002603	7330.00						
	038S002605	14800.00						
	038S002704	696.00						
	038S002803	1510.00						
	038S003003	101.00						
	038S003103	916.00						
	038S003203	571.00						
	038S003205	1150.00						
	038S003303	444.00						
	038S003403	2790.00						
	038S003503	513.00						
	038S003603	936.00						
	038S003703	3120.00						
	038S004104	124.00						
	038S004106	58.00						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S004204	1560.00						
	038S004206	376.00						
Lead				400	1,200	920	2,760	***
	038S000104	18.70						
	038S000106	68.30						
	038S000303	23.50						
	038S000305	25.30						
	038S000404	50.90						
	038S000503	125.00						
	038S000505	60.00						
	038S000703	425.00		X				
	038S000705	130.00						
	038S000803	135.00						
	038S000804	17.40						
	038S000903	31.40						
	038S001003	31.80						
	038S001004	5.70						
	038S001103	7.70						
	038S001104	24.20						
	038S001203	243.00						
	038S001204	126.00						
	038S001303	256.00						
	038S001304	110.00						
	038S001403	148.00						
	038S001405	45.50						
	038S001503	70.00						
	038S001603	119.00	J					
	038S001605	23.00						
	038S001703	44.50						
	038S001705	34.10						
	038S001803	155.00						
	038S001805	491.00		X				
	038S002203	28.90						
	038S002403	6.00						
	038S002503	3.00						
	038S002603	217.00						
	038S002605	897.00		X				
	038S002704	29.00						
	038S002803	49.00						
	038S003003	24.10	J					
	038S003103	46.80	J					
	038S003203	63.00						
	038S003205	14.00						
	038S003303	29.50						
	038S003403	55.30	J					
	038S003503	40.30						
	038S003603	23.00						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S003703	24.70						
	038S004104	8.20						
	038S004106	1.40						
	038S004204	60.60						
	038S004206	18.00						
Magnesium				Not Available				
	038S000104	31.00						
	038S000106	238.00						
	038S000505	30.10						
	038S000703	717.00						
	038S000705	128.00						
	038S000803	68.00						
	038S000804	193.00						
	038S001003	43.80						
	038S001203	103.00						
	038S001204	51.40						
	038S001303	27.90						
	038S001304	18.90						
	038S001403	68.10						
	038S001405	23.50						
	038S001503	216.00						
	038S001603	111.00						
	038S001605	15.90						
	038S001703	57.00						
	038S001705	22.90						
	038S001803	86.60						
	038S001805	467.00						
	038S002203	84.20						
	038S002403	706.00						
	038S002503	13.00						
	038S002603	469.00						
	038S002605	413.00						
	038S002704	14.00						
	038S002803	226.00						
	038S003003	19.40						
	038S003103	68.10						
	038S003203	120.00						
	038S003205	17.00						
	038S003303	115.00						
	038S003403	185.00						
	038S003503	89.50	J					
	038S003603	39.10						
	038S003703	186.00						
	038S004104	16.20						
	038S004106	7.60						
	038S004204	226.00						
	038S004206	41.30						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Manganese				1,600	4,800	22,000	66,000	***
	038S000104	13.20						
	038S000106	53.00						
	038S000505	3.40						
	038S000703	36.80						
	038S000705	32.00						
	038S000903	3.70						
	038S001203	8.30						
	038S001204	5.00						
	038S001303	3.50						
	038S001304	1.40						
	038S001403	5.60						
	038S001405	1.90						
	038S001503	5.20						
	038S001603	12.30						
	038S001605	2.50						
	038S001703	4.50						
	038S001705	2.50						
	038S001803	5.60						
	038S001805	12.70						
	038S002203	10.20						
	038S002403	16.00						
	038S002503	1.00						
	038S002603	238.00						
	038S002605	138.00						
	038S002704	2.00						
	038S002803	14.00						
	038S003103	3.00	J					
	038S003203	7.00						
	038S003205	2.00						
	038S003303	11.50	J					
	038S003403	31.30	J					
	038S003503	8.60						
	038S003603	13.90						
	038S003703	32.80						
	038S004104	3.90						
	038S004106	0.89						
	038S004204	37.60						
	038S004206	8.50						
Mercury				3.4	10.2	26	78	2.1
	038S000104	0.06						
	038S000106	0.06						
	038S000303	0.04						
	038S000305	0.03						
	038S000404	0.08						
	038S000503	0.12						
	038S000505	0.05						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000703	0.05						
	038S000705	0.04						
	038S000803	0.07						
	038S001003	0.06						
	038S001004	0.03						
	038S001203	0.12						
	038S001204	0.07						
	038S001303	0.20						
	038S001304	0.10						
	038S001403	0.20						
	038S001405	0.07						
	038S001503	0.03						
	038S001603	0.07						
	038S001605	0.03	J					
	038S001703	0.05						
	038S001705	0.15						
	038S001803	0.06						
	038S001805	0.12						
	038S002203	0.03						
	038S002603	0.13	J					
	038S002605	0.60	J					
	038S003003	0.41						
	038S004204	0.09						
	038S004206	0.10						
Nickel				110	NA	28,000	84,000	130
	038S000703	4.20						
	038S001803	3.80						
	038S001805	81.50						
	038S002603	5.30						
	038S002605	5.90						
Potassium				Not Available				
	038S001603	110.00						
	038S001805	115.00						
	038S004106	216.00						
Silver				390	1,170	9,100	27,300	17
	038S002605	1.40						
	038S003003	0.83						
Sodium				Not Available				
	038S000106	204.00						
	038S001403	29.60						
	038S001503	31.30						
	038S001603	29.70						
	038S001703	23.30						
	038S001803	36.90						
	038S001805	66.50						
	038S002603	216.00						
	038S002605	45.40						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S002803	45.00					
	038S003103	50.70					
	038S003303	128.00					
	038S003403	61.80					
	038S003503	45.80 J					
	038S003703	51.10					
	038S004104	41.10					
	038S004106	43.10					
	038S004204	43.10					
Thallium*			5.2	15.6	67	201	Not Available
	038S001204	0.61					
Vanadium			15	NA	7,400	22,200	980
	038S000106	8.70 J					
	038S000703	4.40					
	038S000705	6.30					
	038S001603	2.90					
	038S001703	1.60					
	038S001803	1.50					
	038S001805	6.10					
	038S002403	15.00					
	038S002603	11.20					
	038S002605	6.70					
	038S003403	6.70					
	038S003503	1.90					
	038S003703	5.00					
	038S004204	2.60					
Zinc			23,000	69,000	560,000	1,680,000	6,000
	038S000104	13.30					
	038S000106	22.10					
	038S000303	18.60					
	038S000305	15.30					
	038S000404	29.20					
	038S000503	23.80					
	038S000505	13.50					
	038S000703	396.00					
	038S000705	89.30					
	038S000803	32.80					
	038S000804	5.00					
	038S000903	13.40					
	038S001003	17.90					
	038S001104	84.90					
	038S001203	593.00					
	038S001204	220.00					
	038S001303	63.60					
	038S001304	28.90					
	038S001403	403.00					
	038S001405	58.90					

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S001503	49.60					
	038S001603	55.60					
	038S001605	9.60					
	038S001703	7.20					
	038S001705	7.60					
	038S001803	38.00					
	038S001805	209.00					
	038S002203	24.00					
	038S002403	7.00					
	038S002503	7.00					
	038S002603	317.00					
	038S002605	296.00					
	038S002704	18.00					
	038S002803	36.00					
	038S003003	3.30					
	038S003103	32.80					
	038S003203	18.00					
	038S003205	16.00					
	038S003303	6.50					
	038S003403	37.20					
	038S003503	19.20					
	038S003603	8.40					
	038S003703	19.50					
	038S004104	10.00					
	038S004106	4.60					
	038S004204	41.40					
	038S004206	20.20					

Notes:
All concentrations and criteria are in milligrams per kilogram (mg/kg).
***Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs
or may be determined using TCLP in the event oily wastes are present.
* - Region III Risk-Based Concentrations (April 2002) were used for SCTLs.

RI RESULTS - SUBSURFACE SOIL

COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
1,2-Dichlorobenzene			650,000	1,950,000	4,600,000	13,800,000	17,000
	038S001303	280.00 J					
	038S001304	61.00 J					
	038S001403	350.00 J					
	038S001405	80.00 J					
1,4-Dichlorobenzene			6,000	18,000	9,000	27,000	2,200
	038S001403	65.00 J					
2,4-Dimethylphenol			910,000	2,730,000	9,800,000	29,400,000	1,700
	038S001403	210.00 J					
	038S001405	220.00 J					
2-Methylnaphthalene			80,000	240,000	560,000	1,680,000	6,100
	038S001705	88.00 J					
	038S003003	37.00 J					
	038S003205	1400.00					
2-Methylphenol (o-Cresol)			2,400,000	7,200,000	28,000,000	84,000,000	300
	038S001403	250.00 J					
	038S001405	66.00 J					
4-Methylphenol (p-Cresol)			250,000	750,000	3,000,000	9,000,000	30
	038S001403	580.00					X
	038S001405	190.00 J					X
Acenaphthylene			1,100,000	3,300,000	11,000,000	33,000,000	27,000
	038S000106	87.00 J					
	038S000803	48.00 J					
	038S001203	62.00 J					
	038S002603	230.00 J					
	038S002605	71.00 J					
	038S003003	49.00 J					
	038S003303	39.00 J					
Anthracene			18,000,000	54,000,000	260,000,000	780,000,000	2,500,000
	038S000803	43.00 J					
	038S001203	47.00 J					
	038S002603	180.00 J					
	038S003205	120.00 J					
Benzo(a)anthracene			1,400	4,200	5,000	15,000	3,200
	038S000104	43.00 J					
	038S000106	440.00 J					
	038S000703	37.00 J					
	038S000803	250.00 J					
	038S001203	440.00					
	038S001204	42.00 J					
	038S001403	64.00 J					
	038S001603	190.00 J					
	038S002603	260.00 J					
	038S002605	220.00 J					
	038S003303	37.00 J					
Benzo(a)pyrene			100	300	500	1,500	8,000
	038S000104	40.00 J					
	038S000106	440.00 J	X	X			
	038S000803	230.00 J	X				
	038S001203	410.00	X	X			
	038S001204	59.00 J					
	038S002603	300.00 J	X				

RI RESULTS - SUBSURFACE SOIL

COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S002605	260.00 J	X				
	038S003303	60.00 J					
	038S004204	190.00 J	X				
Benzo(b)fluoranthene			1,400	4,200	4,800	14,400	10,000
	038S000104	43.00 J					
	038S000106	530.00 J					
	038S000803	200.00 J					
	038S001203	560.00					
	038S001204	65.00 J					
	038S001403	150.00 J					
	038S001405	84.00 J					
	038S001603	230.00 J					
	038S003003	51.00 J					
	038S003203	120.00 J					
	038S003303	75.00 J					
	038S003403	2100.00 J	X				
	038S003703	73.00 J					
	038S004204	380.00 J					
	038S004206	48.00 J					
Benzo(g,h,i)perylene			2,300,000	6,900,000	41,000,000	123,000,000	32,000,000
	038S000106	360.00 J					
	038S001203	340.00 J					
	038S001204	52.00 J					
	038S002603	120.00 J					
	038S002605	240.00 J					
	038S003003	66.00 J					
	038S003303	56.00 J					
	038S004204	210.00 J					
Benzo(k)fluoranthene			15,000	45,000	52,000	156,000	25,000
	038S000104	51.00 J					
	038S000106	410.00 J					
	038S000703	40.00 J					
	038S000803	300.00 J					
	038S001203	490.00					
	038S001204	71.00 J					
	038S001403	65.00 J					
	038S001603	190.00 J					
	038S002603	330.00 J					
	038S002605	270.00 J					
	038S003203	96.00 J					
	038S003403	910.00 J					
bis(2-Ethylhexyl)phthalate (BEHP)			76,000	228,000	280,000	840,000	3,600,000
	038S000303	300.00 J					
	038S000305	240.00 J					
Chrysene			140,000	420,000	450,000	1,350,000	77,000
	038S000104	52.00 J					
	038S000106	540.00 J					
	038S000703	50.00 J					
	038S000803	280.00 J					
	038S001203	560.00					
	038S001204	65.00 J					
	038S001403	93.00 J					

RI RESULTS - SUBSURFACE SOIL

COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S001405	44.00 J					
	038S001603	240.00 J					
	038S002603	280.00 J					
	038S002605	280.00 J					
	038S003203	77.00 J					
	038S003303	42.00 J					
	038S003403	1800.00					
Dibenz(a,h)anthracene			100	300	500	1,500	30,000
	038S000106	140.00 J	X				
	038S000803	69.00 J					
	038S001203	160.00 J	X				
	038S001403	42.00 J					
	038S003403	590.00 J	X	X	X		
Fluoranthene			2,900,000	8,700,000	48,000,000	144,000,000	1,200,000
	038S000104	59.00 J					
	038S000106	560.00 J					
	038S000703	45.00 J					
	038S000803	350.00 J					
	038S000804	37.00 J					
	038S001203	940.00					
	038S001204	91.00 J					
	038S001403	89.00 J					
	038S002603	310.00 J					
	038S002605	470.00					
	038S003203	120.00 J					
	038S003205	180.00 J					
	038S003403	3200.00					
Indeno(1,2,3-cd)pyrene			1,500	4,500	5,300	15,900	28,000
	038S000106	300.00 J					
	038S000803	140.00 J					
	038S001203	430.00					
	038S001204	54.00 J					
	038S001403	82.00 J					
	038S001805	180.00 J					
	038S002603	220.00 J					
	038S002605	200.00 J					
	038S003303	53.00 J					
	038S003403	1400.00					
	038S004204	240.00 J					
Naphthalene			40,000	120,000	270,000	810,000	1,700
	038S001403	190.00 J					
	038S001405	150.00 J					
	038S001703	110.00 J					
	038S001705	100.00 J					
	038S003003	38.00 J					
	038S003205	530.00 J					
Phenanthrene			2,000,000	6,000,000	30,000,000	90,000,000	250,000
	038S000106	110.00 J					
	038S000703	58.00 J					
	038S000803	180.00 J					
	038S001003	39.00 J					
	038S001203	320.00 J					

RI RESULTS - SUBSURFACE SOIL

COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S001204	45.00 J					
	038S001403	140.00 J					
	038S001705	190.00 J					
	038S002605	110.00 J					
	038S003205	110.00 J					
Phenol			900,000	NA	390,000,000	1,170,000,000	50
	038S001303	46.00 J					
	038S001403	830.00					X
	038S001405	180.00 J					X
	038S001503	110.00 J					X
	038S001805	360.00 J					X
Pyrene			2,200,000	6,600,000	37,000,000	111,000,000	880,000
	038S000104	59.00 J					
	038S000106	570.00 J					
	038S000703	62.00 J					
	038S000803	410.00					
	038S000804	43.00 J					
	038S001203	750.00					
	038S001204	73.00 J					
	038S001403	93.00 J					
	038S001405	39.00 J					
	038S001603	200.00 J					
	038S002603	360.00 J					
	038S002605	460.00					
	038S003203	89.00 J					
	038S003205	110.00 J					
	038S003303	45.00 J					
	038S003403	2900.00					

Notes:

All concentrations and criteria are in micrograms per kilogram (ug/kg).

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
1,1,1-Trichloroethane				400,000	1,200,000	3,300,000	9,900,000	1,900
	038S000703	5.00	J					
	038S000705	18.00						
	038S000803	8.00	J					
	038S000804	7.00	J					
	038S000903	3.00	J					
	038S001003	23.00	D					
	038S001004	3.00	J					
	038S001203	1.00	J					
	038S001204	3.00	J					
	038S001303	12.00						
	038S001304	9.00	J					
	038S001403	150.00						
	038S001405	5.00	J					
	038S001503	3.00	J					
	038S001603	5.00	J					
	038S001705	2.00	J					
	038S001803	2.00	J					
	038S001805	91.00						
	038S002803	17.00						
	038S004204	1.00	J					
1,1,2,2-Tetrachloroethane				700	2,100	1,100	3,300	2
	038S000703	1.00	J					
1,1-Dichloroethane				290,000	870,000	2,000,000	6,000,000	400
	038S000703	3.00	J					
	038S000705	6.00	J					
	038S001204	1.00	J					
	038S001303	4.00	J					
	038S001403	15.00						
	038S001805	3.00	J					
	038S002803	5.00	J					
1,2-Dichloroethane				500	1,500	700	2,100	10
	038S001303	2.00	J					
	038S001403	22.00						X
1,2-Dichloroethene (total)*				19,000	57,000	130,000	390,000	400
	038S000703	30.00						
	038S000705	26.00						
	038S000803	5.00	J					
	038S000804	1.00	J					
	038S000903	3.00	J					
	038S001203	2.00	J					
	038S001303	9.00	J					
	038S001304	1.00	J					
	038S001805	2.00	J					
	038S002803	5.00	J					
2-Butanone (MEK)				3,100,000	9,300,000	21,000,000	63,000,000	17,000
	038S000404	8.00	J					
	038S000503	3.00	J					
	038S001003	5.00	DJ					
	038S001004	6.00	J					
	038S001104	7.00	J					
	038S001403	15.00						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S001405	17.00	J					
	038S001603	6.00	J					
	038S001805	8.00	J					
	038S002203	3.00	J					
	038S002403	1.00	J					
	038S002704	1.00	J					
	038S002803	2.00	J					
Acetone				780,000	2,340,000	5,500,000	16,500,000	2,800
	038S000903	19.00						
	038S001003	150.00	D					
	038S001004	54.00						
	038S001103	84.00						
	038S001104	120.00						
	038S001403	140.00						
	038S001405	89.00	D					
	038S001503	19.00						
	038S001603	160.00	J					
Benzene				1,100	3,300	1,600	4,800	7
	038S003203	2.00	J					
Carbon disulfide				200,000	600,000	1,400,000	4,200,000	5,600
	038S000703	2.00	J					
Carbon tetrachloride				400	1,200	600	1,800	40
	038S000703	2.00	J					
	038S001104	1.00	J					
	038S001303	1.00	J					
	038S001403	1.00	J					
	038S001703	1.00	J					
	038S001805	3.00	J					
Chlorobenzene				30,000	120,000	200,000	600,000	1,300
	038S001303	11.00						
	038S001304	4.00	J					
	038S001403	2.00	J					
Chloroform				400	1,200	500	1,500	30
	038S000803	3.00	J					
	038S000804	1.00	J					
	038S000903	1.00	J					
	038S001303	8.00	J					
	038S001304	2.00	J					
	038S001403	79.00						X
	038S001805	3.00	J					
Ethylbenzene				1,100,000	3,300,000	8,400,000	25,200,000	600
	038S001303	2.00	J					
	038S001603	1.00	J					
	038S001703	1.00	J					
	038S001805	2.00	J					
	038S002503	1.00	J					
	038S003203	3.00	J					
Methylene chloride				16,000	48,000	23,000	69,000	20
	038S001603	19.00	J					
Tetrachloroethene				8,900	26,700	17,000	51,000	30
	038S000703	16.00						
	038S000705	26.00						

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S000803	11.00	J					
	038S000804	4.00	J					
	038S000903	2.00	J					
	038S001003	27.00						
	038S001004	1.00	J					
	038S001103	1.00	J					
	038S001104	11.00						
	038S001204	3.00	J					
	038S001303	23.00						
	038S001304	17.00						
	038S001403	410.00	J					X
	038S001405	120.00						X
	038S001503	1.00	J					
	038S001603	2.00	J					
	038S001703	2.00	J					
	038S001705	15.00						
	038S001803	3.00	J					
	038S001805	230.00						X
	038S004204	15.00						
	038S004206	4.00	J					
Toluene				380,000	1,140,000	2,600,000	7,800,000	500
	038S000104	6.00	J					
	038S000404	4.00	J					
	038S000503	23.00						
	038S000505	22.00						
	038S000703	34.00						
	038S000705	34.00						
	038S000803	78.00						
	038S000804	24.00						
	038S000903	14.00						
	038S001003	7.00	J					
	038S001004	13.00						
	038S001104	4.00	J					
	038S001203	20.00						
	038S001204	32.00						
	038S001303	97.00						
	038S001304	61.00						
	038S001403	33.00						
	038S001405	6.00	J					
	038S001503	9.00	J					
	038S001603	22.00						
	038S001703	11.00	J					
	038S001705	18.00	J					
	038S001803	9.00	J					
	038S001805	60.00						
	038S002503	4.00	J					
	038S002603	6.00	J					
	038S002605	25.00						
	038S002704	2.00	J					
	038S002803	8.00	J					
	038S003703	2.00	J					
	038S004204	42.00						
	038S004206	5.00	J					

RI RESULTS - SUBSURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Trichloroethene				6,000	18,000	8,500	25,500	30
	038S000303	2.00	J					
	038S000305	3.00	J					
	038S000703	79.00						X
	038S000705	74.00						X
	038S000803	33.00						X
	038S000804	12.00						
	038S000903	4.00	J					
	038S001003	7.00	J					
	038S001203	10.00	J					
	038S001204	21.00						
	038S001303	120.00						X
	038S001304	34.00						X
	038S001403	400.00	J					X
	038S001405	13.00	J					
	038S001503	17.00						
	038S001603	2.00	J					
	038S001705	2.00	J					
	038S001803	2.00	J					
	038S001805	110.00						X
	038S002704	1.00	J					
	038S002803	10.00	J					
	038S004204	21.00						
	038S004206	6.00	J					
Xylene (Total)				5,900,000	17,700,000	40,000,000	120,000,000	200
	038S001603	14.00	J					
	038S001805	11.00	J					
	038S002503	3.00	J					
	038S002605	1.00	J					
	038S002803	2.00	J					
	038S004204	2.00	J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).
* - No SCTL for 1,2-Dichloroethene (total) was listed. The SCTL for cis-1,2-Dichloroethene was used since it was less than the SCTL for trans-1,2-Dichloroethene.

EPA Data

Surface Soil

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Aluminum			72,000	216,000	NA	NA	***
	038S0I1001	46.00					
	038S0I1002	33.00					
	038S0S2301	930.00					
	038S0S2302	360.00					
	038S0T0101	17000.00					
	038S0T0102	140.00					
	038S0T0201	6600.00					
	038S0T0301	3700.00					
	038S0T0302	1700.00					
	038S0T0401	7600.00					
	038S0T0402	66.00					
	038S0T0501	18.00					
	038S0T0502	27.00					
	038S0T0601	1700.00					
	038S0T0602	110.00					
	038S0T0701	4700.00					
	038S0T0702	42.00					
	038S0T0801	14000.00					
	038S0T0802	900.00					
	038S0T0901	21000.00					
	038S0T0902	76.00					
	038S0T1001	8700.00					
	038S0T1002	330.00					
	038S0T1101	6900.00					
	038S0T1102	280.00					
	038S0T1201	3900.00					
	038S0T1202	380.00					
	038S0T1301	15000.00					
	038S0T1302	440.00					
	038S0T1401	35000.00					
	038S0T1402	20.00					
	038S0T1501	1800.00					
	038S0T1502	290.00					
	038S0T1601	10000.00					
	038S0T1602	39.00					
	038S0T1701	7800.00					
	038S0T1702	650.00					
	038S0T1801	13000.00					
	038S0T1802	1700.00					
	038S0T1901	32000.00					
	038S0T1902	650.00					
	038S0T2001	28000.00					
	038S0T2002	30.00					
	038S0T2201	44.00					
	038S0T2202	120.00					
	038S0T2301	11000.00					
	038S0T2302	47.00					
	038S0T2501	8700.00					
	038S0T2502	130.00					
	038S0T2601	230.00					
	038S0T2602	69.00					
	038S0T2701	190.00					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T2702	60.00					
	038S0T2801	39.00					
	038S0T2802	110.00					
	038S0T2901	3200.00					
	038S0T2902	550.00					
	038S0T3002	87.00					
	038S0T3101	2200.00					
	038S0T3102	100.00					
	038S0T3201	36.00					
	038S0T3202	32.00					
	038S0T3301	320.00					
	038S0T3302	120.00					
	038S0T3401	5400.00					
	038S0T3402	96.00					
	038S0T3501	5400.00					
	038S0T3502	180.00					
	038S0T3601	2800.00					
	038S0T3602	53.00					
	038S0T3701	6700.00					
	038S0T3702	78.00					
	038S0T3801	5900.00					
	038S0T3901	13000.00					
	038S0T4001	8200.00					
	038S0T4002	360.00					
	038S0T4101	8000.00					
	038S0T4102	96.00					
	038S0T4201	1600.00					
Arsenic	*Note: RC = 1.56 mg/kg		0.8	2.4	3.7	11.1	29
	038S0T0101	5.10	X	X	X		
	038S0T1101	4.00	X	X	X		
	038S0T1401	8.70	X	X	X		
	038S0T1501	5.70	X	X	X		
	038S0T1601	5.60	X	X	X		
	038S0T1701	6.30	X	X	X		
	038S0T1802	3.40	X	X			
	038S0T1902	1.90	X				
	038S0T2301	3.20	X	X			
	038S0T2501	3.10	X	X			
Barium			110	NA	87,000	261,000	1,600
	038S0I1001	2.70					
	038S0S2301	5.60					
	038S0S2302	5.00					
	038S0T0101	20.00					
	038S0T0201	11.00					
	038S0T0301	28.00					
	038S0T0302	12.00					
	038S0T0401	14.00					
	038S0T0402	4.60					
	038S0T0601	13.00					
	038S0T0701	23.00					
	038S0T0801	3.80					
	038S0T0802	3.70					
	038S0T0901	5.40					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T1001	12.00					
	038S0T1002	10.00					
	038S0T1101	24.00					
	038S0T1102	1.50					
	038S0T1201	18.00					
	038S0T1202	1.80					
	038S0T1301	29.00					
	038S0T1302	5.30					
	038S0T1401	6.20					
	038S0T1501	21.00					
	038S0T1502	5.20					
	038S0T1601	33.00					
	038S0T1701	46.00					
	038S0T1702	2.50					
	038S0T1801	24.00					
	038S0T1802	110.00					
	038S0T1901	6.10					
	038S0T1902	33.00					
	038S0T2001	15.00					
	038S0T2202	1.70					
	038S0T2301	30.00					
	038S0T2501	16.00					
	038S0T2601	6.60					
	038S0T2701	2.80					
	038S0T2802	3.80					
	038S0T2901	2.50					
	038S0T2902	21.00					
	038S0T3002	1.40					
	038S0T3101	9.20					
	038S0T3301	6.60					
	038S0T3401	12.00					
	038S0T3501	18.00					
	038S0T3502	1.30					
	038S0T3601	30.00					
	038S0T3701	13.00					
	038S0T3801	15.00					
	038S0T3901	16.00					
	038S0T4001	16.00					
	038S0T4002	4.10					
	038S0T4101	29.00					
	038S0T4102	2.00					
	038S0T4201	24.00					
Cadmium			75	NA	1,300	3,900	8
	038S0I1001	2.40					
	038S0I1002	2.20					
	038S0S2301	1.20					
	038S0T0301	0.72					
	038S0T0401	0.54					
	038S0T0701	1.20					
	038S0T0802	1.70					
	038S0T0901	1.30					
	038S0T1001	0.50					
	038S0T1002	0.94					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T1101	0.92						
	038S0T1301	1.30						
	038S0T1601	1.50						
	038S0T1701	1.40						
	038S0T2301	1.30						
	038S0T3101	2.00						
	038S0T3401	0.56						
	038S0T3501	1.10						
	038S0T3601	2.00						
	038S0T3801	4.60						
	038S0T3901	2.50						
	038S0T4001	2.40						
	038S0T4002	1.20						
	038S0T4101	17.00						X
	038S0T4102	3.40						
	038S0T4201	21.00						X
Calcium				Not Available				
	038S0S2301	330.00						
	038S0S2302	350.00						
	038S0T0101	4400.00						
	038S0T0201	940.00						
	038S0T0301	2800.00						
	038S0T0302	1500.00						
	038S0T0401	1200.00						
	038S0T0502	54.00						
	038S0T0601	3600.00						
	038S0T0602	83.00						
	038S0T0701	4100.00						
	038S0T0801	260.00						
	038S0T0802	210.00						
	038S0T0901	290.00						
	038S0T1001	510.00						
	038S0T1002	270.00						
	038S0T1101	4100.00	A					
	038S0T1102	150.00						
	038S0T1201	660.00						
	038S0T1202	260.00						
	038S0T1301	22000.00						
	038S0T1302	1600.00						
	038S0T1401	360.00						
	038S0T1501	720.00						
	038S0T1502	160.00						
	038S0T1601	9700.00						
	038S0T1701	7900.00						
	038S0T1702	260.00						
	038S0T1801	2000.00						
	038S0T1802	1800.00						
	038S0T1902	5400.00						
	038S0T2001	5800.00	A					
	038S0T2201	170.00						
	038S0T2202	240.00						
	038S0T2301	3500.00						
	038S0T2501	2000.00						

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T2502	64.00					
	038S0T2601	1400.00					
	038S0T2701	1100.00					
	038S0T2801	170.00					
	038S0T2802	150.00					
	038S0T2901	190.00					
	038S0T2902	2900.00					
	038S0T3002	57.00					
	038S0T3101	380.00					
	038S0T3201	55.00					
	038S0T3202	200.00					
	038S0T3301	430.00					
	038S0T3302	68.00					
	038S0T3401	730.00					
	038S0T3501	2000.00					
	038S0T3502	150.00					
	038S0T3601	1900.00					
	038S0T3701	480.00					
	038S0T3801	620.00					
	038S0T3901	1200.00					
	038S0T4001	1100.00					
	038S0T4002	510.00					
	038S0T4101	1900.00					
	038S0T4102	110.00					
	038S0T4201	1900.00					
Chromium	(use Chromium VI SCTL)		210	630	420	1,260	38
	038S0I1001	93.00					X
	038S0I1002	20.00					
	038S0S2301	3.00					
	038S0S2302	1.70					
	038S0T0101	17.00					
	038S0T0201	5.90					
	038S0T0301	11.00					
	038S0T0302	4.40					
	038S0T0401	8.70					
	038S0T0502	3.80					
	038S0T0601	4.80					
	038S0T0701	9.70					
	038S0T0801	12.00					
	038S0T0802	38.00					
	038S0T0901	21.00					
	038S0T1001	11.00					
	038S0T1002	3.20					
	038S0T1101	9.30					
	038S0T1201	4.50					
	038S0T1301	13.00					
	038S0T1302	2.80					
	038S0T1401	34.00					
	038S0T1501	6.70					
	038S0T1601	11.00					
	038S0T1701	9.30					
	038S0T1801	12.00					
	038S0T1802	10.00					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T1901	33.00					
	038S0T1902	1.00					
	038S0T2001	30.00					
	038S0T2301	12.00					
	038S0T2501	13.00					
	038S0T2802	11.00					
	038S0T2901	3.60					
	038S0T2902	3.60					
	038S0T3002	6.00					
	038S0T3101	4.50					
	038S0T3401	6.60					
	038S0T3501	9.90					
	038S0T3601	30.00					
	038S0T3701	12.00					
	038S0T3801	48.00					X
	038S0T3901	20.00					
	038S0T4001	17.00					
	038S0T4002	6.90					
	038S0T4101	36.00					
	038S0T4102	10.00					
	038S0T4201	40.00					X
Cobalt			4,700	14,100	110,000	330,000	***
	038S0T1701	1.20					
	038S0T1802	2.10					
	038S0T2601	2.10					
	038S0T2701	1.90					
	038S0T2901	1.60					
	038S0T3301	37.00					
	038S0T3701	1.10					
	038S0T3801	1.00					
	038S0T4101	1.30					
Copper			110	NA	76,000	228,000	***
	038S0I1001	5.40					
	038S0I1002	2.80					
	038S0S2301	4.10					
	038S0S2302	17.00					
	038S0T0101	9.80					
	038S0T0102	1.10					
	038S0T0201	7.70					
	038S0T0301	35.00					
	038S0T0302	15.00					
	038S0T0401	11.00					
	038S0T0502	18.00					
	038S0T0601	7.00					
	038S0T0701	21.00					
	038S0T0801	2.60					
	038S0T0802	31.00					
	038S0T0901	5.40					
	038S0T0902	6.00					
	038S0T1001	6.30					
	038S0T1002	24.00					
	038S0T1101	140.00	X				
	038S0T1102	4.10					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T1201	7.40						
	038S0T1202	1.50						
	038S0T1301	76.00						
	038S0T1302	14.00						
	038S0T1401	5.20						
	038S0T1402	1.40						
	038S0T1501	43.00						
	038S0T1502	58.00						
	038S0T1601	67.00						
	038S0T1701	25.00						
	038S0T1702	3.90						
	038S0T1801	32.00						
	038S0T1802	100.00						
	038S0T1901	4.80						
	038S0T1902	32.00						
	038S0T2001	7.00						
	038S0T2202	36.00						
	038S0T2301	46.00						
	038S0T2501	7.30						
	038S0T2502	1.10						
	038S0T2601	3.20						
	038S0T2602	3.70						
	038S0T2702	5.70						
	038S0T2802	10.00						
	038S0T2902	35.00						
	038S0T3002	3.70						
	038S0T3101	140.00		X				
	038S0T3102	1.20						
	038S0T3301	3.30						
	038S0T3401	6.50						
	038S0T3501	11.00						
	038S0T3502	1.80						
	038S0T3601	11.00						
	038S0T3701	18.00						
	038S0T3801	28.00						
	038S0T3901	43.00						
	038S0T4001	59.00						
	038S0T4002	17.00						
	038S0T4101	210.00		X				
	038S0T4102	7.80						
	038S0T4201	190.00	A	X				
Cyanide (CN)				30	NA	39,000	117,000	40
	038S0T0901	0.27						
	038S0T1002	0.53	A					
	038S0T3601	9.70						
	038S0T4201	0.00	NAI					
Iron				23,000	69,000	480,000	1,440,000	***
	038S0I1001	92.00						
	038S0I1002	35.00						
	038S0S2301	770.00						
	038S0S2302	780.00						
	038S0T0101	10000.00						
	038S0T0102	150.00						

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S0T0201	3500.00					
	038S0T0301	3400.00					
	038S0T0302	1700.00					
	038S0T0401	4200.00					
	038S0T0402	47.00					
	038S0T0501	24.00					
	038S0T0502	210.00					
	038S0T0601	1800.00					
	038S0T0602	92.00					
	038S0T0701	3000.00					
	038S0T0702	18.00					
	038S0T0801	8100.00					
	038S0T0802	710.00					
	038S0T0901	1300.00					
	038S0T0902	76.00					
	038S0T1001	4500.00					
	038S0T1002	1500.00					
	038S0T1101	6700.00					
	038S0T1102	250.00					
	038S0T1201	2900.00					
	038S0T1202	220.00					
	038S0T1301	10000.00					
	038S0T1302	3700.00					
	038S0T1401	22000.00					
	038S0T1402	14.00					
	038S0T1501	2500.00					
	038S0T1502	860.00					
	038S0T1601	7500.00					
	038S0T1602	24.00					
	038S0T1701	7400.00					
	038S0T1702	680.00					
	038S0T1801	7900.00					
	038S0T1802	6800.00					
	038S0T1901	18000.00					
	038S0T1902	1400.00					
	038S0T2001	16000.00					
	038S0T2002	32.00					
	038S0T2201	170.00					
	038S0T2202	350.00					
	038S0T2301	7000.00					
	038S0T2302	87.00					
	038S0T2501	8800.00					
	038S0T2502	85.00					
	038S0T2601	260.00					
	038S0T2602	110.00					
	038S0T2701	210.00					
	038S0T2702	120.00					
	038S0T2801	34.00					
	038S0T2802	270.00					
	038S0T2901	2000.00					
	038S0T2902	2100.00					
	038S0T3002	180.00					
	038S0T3101	1300.00					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T3102	160.00					
	038S0T3201	51.00					
	038S0T3202	29.00					
	038S0T3301	400.00					
	038S0T3302	100.00					
	038S0T3401	3400.00					
	038S0T3402	130.00					
	038S0T3501	4200.00					
	038S0T3502	150.00					
	038S0T3601	2100.00					
	038S0T3602	37.00					
	038S0T3701	3200.00					
	038S0T3702	41.00					
	038S0T3801	4600.00					
	038S0T3901	8200.00					
	038S0T4001	4500.00					
	038S0T4002	390.00					
	038S0T4101	3900.00					
	038S0T4102	170.00					
	038S0T4201	2400.00					
Lead			400	1,200	920	2,760	***
	038S0I1001	36.00					
	038S0I1002	12.00					
	038S0S2301	35.00					
	038S0S2302	58.00					
	038S0T0101	58.00					
	038S0T0102	5.30					
	038S0T0201	20.00					
	038S0T0301	210.00					
	038S0T0302	65.00					
	038S0T0401	46.00					
	038S0T0402	13.00					
	038S0T0501	7.60					
	038S0T0502	17.00					
	038S0T0601	74.00					
	038S0T0602	8.90					
	038S0T0701	93.00					
	038S0T0702	2.80					
	038S0T0801	3.30					
	038S0T0802	50.00					
	038S0T0901	5.80					
	038S0T0902	1.80					
	038S0T1001	23.00					
	038S0T1002	61.00					
	038S0T1101	240.00					
	038S0T1102	11.00					
	038S0T1201	46.00					
	038S0T1202	5.20					
	038S0T1301	110.00					
	038S0T1302	29.00					
	038S0T1401	6.70					
	038S0T1402	0.80					
	038S0T1501	200.00					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T1502	37.00						
	038S0T1601	170.00						
	038S0T1602	2.70						
	038S0T1701	180.00						
	038S0T1702	71.00						
	038S0T1801	320.00						
	038S0T1802	350.00						
	038S0T1901	4.00						
	038S0T1902	250.00						
	038S0T2001	22.00						
	038S0T2002	1.00						
	038S0T2202	41.00						
	038S0T2301	110.00						
	038S0T2501	160.00	A					
	038S0T2601	43.00						
	038S0T2602	5.30						
	038S0T2701	9.80						
	038S0T2702	6.20						
	038S0T2802	10.00						
	038S0T2902	92.00						
	038S0T3002	6.80						
	038S0T3101	31.00						
	038S0T3202	4.80						
	038S0T3301	78.00						
	038S0T3302	4.80						
	038S0T3401	53.00						
	038S0T3501	75.00						
	038S0T3502	5.00						
	038S0T3601	240.00						
	038S0T3701	80.00						
	038S0T3801	110.00						
	038S0T3901	110.00						
	038S0T4001	57.00						
	038S0T4002	31.00						
	038S0T4101	360.00						
Magnesium				Not Available				
	038S0T4102	12.00						
	038S0T4201	270.00						
	038S0I1001	16.00						
	038S0S2301	68.00						
	038S0S2302	140.00						
	038S0T0101	260.00						
	038S0T0102	11.00						
	038S0T0201	160.00						
	038S0T0301	700.00						
	038S0T0302	380.00						
	038S0T0401	240.00						
	038S0T0601	540.00						
	038S0T0602	24.00						
	038S0T0701	750.00						
	038S0T0801	120.00						
	038S0T0802	41.00						
	038S0T0901	150.00						

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T0902	11.00						
	038S0T1001	160.00						
	038S0T1002	66.00						
	038S0T1101	410.00						
	038S0T1102	25.00						
	038S0T1201	200.00						
	038S0T1202	29.00						
	038S0T1301	590.00						
	038S0T1302	79.00						
	038S0T1401	130.00						
	038S0T1501	290.00						
	038S0T1502	76.00						
	038S0T1601	430.00						
	038S0T1701	470.00						
	038S0T1702	36.00						
	038S0T1801	730.00						
	038S0T1802	1200.00						
	038S0T1901	100.00						
	038S0T1902	560.00						
	038S0T2001	850.00	A					
	038S0T2201	16.00						
	038S0T2202	28.00						
	038S0T2301	260.00						
	038S0T2501	410.00						
	038S0T2502	16.00						
	038S0T2601	96.00						
	038S0T2602	11.00						
	038S0T2701	48.00						
	038S0T2802	17.00						
	038S0T2901	38.00						
	038S0T2902	290.00						
	038S0T3101	100.00						
	038S0T3102	9.40						
	038S0T3301	92.00						
	038S0T3302	14.00						
	038S0T3401	190.00						
	038S0T3501	440.00						
	038S0T3502	14.00						
	038S0T3601	350.00						
	038S0T3701	150.00						
	038S0T3801	170.00						
	038S0T3901	290.00						
	038S0T4001	160.00						
	038S0T4002	71.00						
	038S0T4101	250.00						
	038S0T4102	12.00						
	038S0T4201	300.00						
Manganese				1,600	4,800	22,000	66,000	***
	038S0S2301	4.30						
	038S0S2302	4.70						
	038S0T0101	210.00						
	038S0T0102	1.70						
	038S0T0201	90.00						

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S0T0301	63.00					
	038S0T0302	29.00					
	038S0T0401	86.00					
	038S0T0601	50.00					
	038S0T0602	2.90					
	038S0T0701	100.00					
	038S0T0801	11.00					
	038S0T0802	4.70					
	038S0T0901	14.00					
	038S0T1001	100.00					
	038S0T1002	14.00					
	038S0T1101	88.00					
	038S0T1102	3.80					
	038S0T1201	31.00					
	038S0T1202	7.70					
	038S0T1301	82.00					
	038S0T1302	18.00					
	038S0T1401	10.00					
	038S0T1402	1.20					
	038S0T1501	45.00					
	038S0T1502	5.60					
	038S0T1601	110.00					
	038S0T1602	3.10					
	038S0T1701	130.00					
	038S0T1702	8.00					
	038S0T1801	380.00					
	038S0T1901	9.40					
	038S0T1902	20.00					
	038S0T2001	50.00					
	038S0T2201	1.40					
	038S0T2202	8.00					
	038S0T2301	100.00					
	038S0T2302	1.30					
	038S0T2501	74.00					
	038S0T2502	1.90					
	038S0T2601	6.10					
	038S0T2602	4.00					
	038S0T2701	3.00					
	038S0T2702	1.50					
	038S0T2802	4.00					
	038S0T2901	3.10					
	038S0T2902	35.00					
	038S0T3002	2.30					
	038S0T3101	30.00					
	038S0T3102	1.90					
	038S0T3301	5.10					
	038S0T3401	80.00					
	038S0T3501	92.00					
	038S0T3502	15.00					
	038S0T3601	79.00					
	038S0T3701	100.00					
	038S0T3702	1.00					
	038S0T3801	87.00					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T3901	94.00					
	038S0T4001	76.00					
	038S0T4002	7.30					
	038S0T4101	66.00					
	038S0T4102	1.70					
	038S0T4201	34.00					
Mercury			3.4	10.2	26	78	2.1
	038S0S2302	0.09					
	038S0T0301	0.12					
	038S0T0302	0.10					
	038S0T0401	0.07					
	038S0T0402	0.82					
	038S0T0701	0.08					
	038S0T1001	0.17					
	038S0T1002	0.08					
	038S0T1101	0.22					
	038S0T1201	0.12					
	038S0T1301	0.36					
	038S0T1501	0.22					
	038S0T1601	0.14					
	038S0T1702	0.07					
	038S0T1802	1.00					
	038S0T1902	0.05					
	038S0T2002	0.17					
	038S0T2301	0.07					
	038S0T2702	0.07					
	038S0T3101	0.07					
	038S0T3501	0.85					
	038S0T3502	0.09					
	038S0T3601	0.08					
	038S0T3801	0.07					
	038S0T3901	0.10					
	038S0T4001	0.08					
	038S0T4101	0.23					
Molybdenum			390	1,170	9,700	29,100	***
	038S0T0101	2.10					
	038S0T4101	1.70					
Nickel			110	NA	28,000	84,000	130
	038S0T0201	2.00					
	038S0T0301	3.10					
	038S0T0302	3.40					
	038S0T0401	3.40					
	038S0T0701	3.30					
	038S0T0802	2.50					
	038S0T1001	3.00					
	038S0T1101	2.90					
	038S0T1301	4.30					
	038S0T1601	4.20					
	038S0T1701	4.00					
	038S0T1802	12.00					
	038S0T2301	4.80					
	038S0T3301	9.50					
	038S0T3401	2.20					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T3501	3.90						
	038S0T3601	4.10						
	038S0T3701	2.40						
	038S0T3801	4.90						
	038S0T4001	3.40						
	038S0T4101	4.90						
	038S0T4201	18.00	A					
Potassium				Not Available				
	038S0T1501	220.00						
	038S0T1601	220.00						
	038S0T1802	440.00						
	038S0T2901	220.00						
Sodium				Not Available				
	038S0I1001	120.00						
	038S0T0301	490.00						
	038S0T0302	120.00						
	038S0T0601	190.00						
	038S0T0701	140.00						
	038S0T1101	560.00						
	038S0T1301	560.00						
	038S0T1501	400.00						
	038S0T1601	320.00						
	038S0T1701	110.00						
	038S0T1801	660.00						
	038S0T1802	170.00						
	038S0T3801	160.00						
Strontium				47,000	141,000	NA	NA	***
	038S0S2301	1.20						
	038S0S2302	1.20						
	038S0T0101	16.00						
	038S0T0201	3.60						
	038S0T0301	8.80						
	038S0T0302	4.20						
	038S0T0401	3.80						
	038S0T0601	10.00						
	038S0T0701	9.60						
	038S0T0802	1.10						
	038S0T1001	2.40						
	038S0T1002	2.30						
	038S0T1101	8.90						
	038S0T1201	2.70						
	038S0T1301	69.00						
	038S0T1302	4.20						
	038S0T1501	5.00						
	038S0T1502	1.10						
	038S0T1601	27.00						
	038S0T1701	30.00						
	038S0T1801	5.30						
	038S0T1802	16.00						
	038S0T1902	13.00						
	038S0T2001	15.00	A					
	038S0T2301	9.10						
	038S0T2501	5.20						

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T2601	4.60						
	038S0T2701	4.70						
	038S0T2802	1.20						
	038S0T2901	1.80						
	038S0T2902	7.20						
	038S0T3101	1.40						
	038S0T3301	2.70						
	038S0T3401	2.70						
	038S0T3501	8.70						
	038S0T3601	12.00						
	038S0T3701	3.90						
	038S0T3801	4.00						
	038S0T3901	5.50						
	038S0T4001	5.50						
	038S0T4002	1.20						
	038S0T4101	8.00						
	038S0T4201	5.40						
Tin				44,000	132,000	660,000	1,980,000	***
	038S0T1101	16.00						
	038S0T2301	9.70						
	038S0T4101	30.00						
	038S0T4201	16.00	A					
Titanium				Not Available				
	038S0I1001	18.00						
	038S0I1002	2.60						
	038S0S2301	21.00						
	038S0S2302	9.50						
	038S0T0101	100.00						
	038S0T0102	5.00						
	038S0T0201	74.00						
	038S0T0301	58.00						
	038S0T0302	30.00						
	038S0T0401	80.00						
	038S0T0402	5.80						
	038S0T0501	8.70						
	038S0T0502	1.80						
	038S0T0601	40.00						
	038S0T0602	3.40						
	038S0T0701	60.00						
	038S0T0702	2.10						
	038S0T0801	84.00						
	038S0T0802	14.00						
	038S0T0901	120.00						
	038S0T0902	2.70						
	038S0T1001	75.00						
	038S0T1002	13.00						
	038S0T1101	78.00						
	038S0T1102	5.30						
	038S0T1201	49.00						
	038S0T1202	8.60						
	038S0T1301	110.00						
	038S0T1302	26.00						
	038S0T1401	130.00						

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T1402	1.20					
	038S0T1502	8.20					
	038S0T1601	92.00					
	038S0T1602	1.30					
	038S0T1701	87.00					
	038S0T1702	9.60					
	038S0T1801	120.00					
	038S0T1802	120.00					
	038S0T1901	120.00					
	038S0T1902	16.00					
	038S0T2001	110.00					
	038S0T2002	1.00					
	038S0T2201	1.60					
	038S0T2202	3.40					
	038S0T2301	100.00					
	038S0T2302	1.80					
	038S0T2501	97.00					
	038S0T2502	2.90					
	038S0T2601	7.70					
	038S0T2602	21.00					
	038S0T2701	4.80					
	038S0T2702	3.40					
	038S0T2801	2.40					
	038S0T2802	4.60					
	038S0T2901	37.00					
	038S0T2902	28.00					
	038S0T3002	3.60					
	038S0T3101	34.00					
	038S0T3102	5.90					
	038S0T3201	2.20					
	038S0T3202	4.20					
	038S0T3301	11.00					
	038S0T3302	4.80					
	038S0T3401	64.00					
	038S0T3402	4.80					
	038S0T3501	72.00					
	038S0T3502	4.10					
	038S0T3601	56.00					
	038S0T3602	7.60					
	038S0T3701	80.00					
	038S0T3702	4.00					
	038S0T3801	55.00					
	038S0T3901	100.00					
	038S0T4001	71.00					
	038S0T4002	7.60					
	038S0T4101	36.00					
	038S0T4102	3.00					
	038S0T4201	30.00					
Vanadium			15	NA	7,400	22,200	980
	038S0S2301	1.80					
	038S0S2302	1.60					
	038S0T0101	29.00	X				
	038S0T0201	9.30					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T0301	7.30					
	038S0T0302	3.60					
	038S0T0401	11.00					
	038S0T0601	3.20					
	038S0T0701	8.60					
	038S0T0801	23.00	X				
	038S0T0802	1.30					
	038S0T0901	34.00	X				
	038S0T1001	12.00					
	038S0T1101	14.00					
	038S0T1201	6.20					
	038S0T1301	21.00	X				
	038S0T1302	12.00					
	038S0T1401	55.00	X				
	038S0T1501	4.00					
	038S0T1601	16.00	X				
	038S0T1701	13.00					
	038S0T1702	1.60					
	038S0T1801	19.00	X				
	038S0T1802	5.20					
	038S0T1901	52.00	X				
	038S0T1902	2.00					
	038S0T2001	48.00	X				
	038S0T2301	17.00	X				
	038S0T2501	19.00	X				
	038S0T2901	6.10					
	038S0T2902	1.90					
	038S0T3101	4.40					
	038S0T3401	7.50					
	038S0T3501	8.80					
	038S0T3601	4.10					
	038S0T3701	10.00					
	038S0T3801	9.30					
	038S0T3901	21.00	X				
	038S0T4001	12.00					
	038S0T4101	5.50					
	038S0T4201	2.80					
Yttrium			Not Available				
	038S0T0101	3.50					
	038S0T0201	1.00					
	038S0T0301	1.60					
	038S0T0401	1.70					
	038S0T0601	1.10					
	038S0T1001	1.80					
	038S0T1101	1.80					
	038S0T1301	2.10					
	038S0T1501	1.50					
	038S0T1601	2.60					
	038S0T1701	2.70					
	038S0T1801	4.80					
	038S0T1802	1.80					
	038S0T2301	2.40					
	038S0T2501	2.10					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
	038S0T3401	2.80					
	038S0T3501	2.30					
	038S0T3601	1.80					
	038S0T3701	2.20					
	038S0T3801	1.30					
	038S0T4001	1.40					
Zinc			23,000	69,000	560,000	1,680,000	6000
	038S0I1001	38.00					
	038S0I1002	17.00					
	038S0S2301	37.00					
	038S0S2302	28.00					
	038S0T0101	35.00					
	038S0T0102	2.70					
	038S0T0201	26.00					
	038S0T0301	130.00					
	038S0T0302	35.00					
	038S0T0401	42.00					
	038S0T0402	1.30					
	038S0T0502	18.00					
	038S0T0601	37.00					
	038S0T0602	3.60					
	038S0T0701	67.00					
	038S0T0801	3.10					
	038S0T0802	54.00					
	038S0T0901	7.00					
	038S0T0902	4.00					
	038S0T1001	57.00					
	038S0T1002	49.00					
	038S0T1101	230.00					
	038S0T1102	7.90					
	038S0T1201	55.00					
	038S0T1202	4.20					
	038S0T1301	100.00					
	038S0T1302	15.00					
	038S0T1401	4.30					
	038S0T1402	1.20					
	038S0T1501	110.00					
	038S0T1601	120.00					
	038S0T1701	110.00					
	038S0T1702	19.00					
	038S0T1801	66.00					
	038S0T1802	96.00					
	038S0T1902	53.00					
	038S0T2001	14.00					
	038S0T2202	42.00					
	038S0T2301	140.00					
	038S0T2302	1.40					
	038S0T2501	30.00					
	038S0T2502	2.90					
	038S0T2601	9.40					
	038S0T2602	3.20					
	038S0T2701	5.00					
	038S0T2702	4.60					

EPA DATA - SURFACE SOIL
COMPARISON OF INORGANIC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
	038S0T2802	12.00					
	038S0T2902	100.00					
	038S0T3002	5.60					
	038S0T3101	73.00					
	038S0T3102	10.00					
	038S0T3202	1.90					
	038S0T3301	44.00					
	038S0T3302	3.20					
	038S0T3401	27.00					
	038S0T3402	7.80					
	038S0T3501	86.00					
	038S0T3502	3.80					
	038S0T3601	98.00					
	038S0T3701	19.00					
	038S0T3702	6.20					
	038S0T3801	99.00					
	038S0T3901	290.00					
	038S0T4001	93.00					
	038S0T4002	26.00					
	038S0T4101	200.00					
	038S0T4102	36.00					
	038S0T4201	280.00					

Notes:
All concentrations and criteria are in milligrams per kilogram (mg/kg).
***Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.
* - Region 9 Preliminary Remedial Goals (October 2002) were used for SCTLs.

EPA DATA - SURFACE SOIL
COMPARISON OF PESTICIDE/PCB DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

				Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result		SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
4,4'-DDE				3,300	9,900	13,000	39,000	18000
	038S0T0301	10.00	J					
	038S0T0401	3.80	J					
	038S0T0701	15.00	JN					
	038S0T1501	5.80	J					
	038S0T3101	120.00						
	038S0T3601	46.00						
	038S0T3701	100.00						
4,4'-DDT				3,300	9,900	13,000	39,000	11000
	038S0T0401	8.00	J					
	038S0T3101	56.00						
	038S0T3501	11.00	J					
	038S0T3701	45.00						
Aroclor-1260	(use PCB mixture SCTL)			500	1,500	2,100	6,300	17000
	038S0S2301	81.00	J					
	038S0I1001	90.00	J					
	038S0T0101	810.00		X				
	038S0T1801	83.00	J					
beta-BHC				600	1,800	2,100	6,300	1
	038S0T4201	56.00	N					X
delta-BHC				22,000	66,000	420,000	1,260,000	200
	038S0T4201	300.00	N					X
Dieldrin				70	210	300	900	4
	038S0T0301	20.00	J					X
	038S0T0401	3.10	J					
	038S0T0701	9.00	JN					X
	038S0T1501	40.00	J					X
	038S0T3701	84.00		X				X
	038S0T3801	5.30	J					X
Endosulfan I	(use Endosulfan SCTL)			410,000	1,230,000	6,700,000	20,100,000	3800
	038S0T4201	7.40	JN					
Endosulfan II	(use Endosulfan SCTL)			410,000	1,230,000	6,700,000	20,100,000	3800
	038S0T4201	11.00	JN					
Endosulfan sulfate	(use Endosulfan SCTL)			410,000	1,230,000	6,700,000	20,100,000	3800
	038S0T4201	70.00	N					
Endrin				21,000	63,000	340,000	1,020,000	1000
	038S0T4201	7.10	JN					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

EPA DATA - SURFACE SOIL
COMPARISON OF SVOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

			Residential Exposure		Industrial Exposure		Leachability Based On
Parameter	Sample ID	Result	SCTL	3x SCTL	SCTL	3x SCTL	Groundwater Criteria
1,2-Dichlorobenzene			650,000	1,950,000	4,600,000	13,800,000	17,000
	038S0T0502	280.00					
Acenaphthene			1,900,000	5,700,000	18,000,000	54,000,000	2,100
	038S0T0502	1400.00 J					
Anthracene			18,000,000	54,000,000	260,000,000	780,000,000	2,500,000
	038S0T0502	2000.00 J					
Benzo(a)anthracene			1,400	4,200	5,000	15,000	3,200
	038S0T0502	740.00 J					
	038S0T1101	370.00 J					
	038S0T2701	2600.00 J	X				
Benzo(a)pyrene			100	300	500	1,500	8,000
	038S0T0502	380.00 J	X	X			
	038S0T2701	2200.00 J	X	X	X	X	
Benzo(b)fluoranthene			1,400	4,200	4,800	14,400	10,000
	038S0T0502	530.00 J					
	038S0T1101	670.00 J					
	038S0T1701	470.00 J					
	038S0T2701	3800.00	X				
	038S0T3801	230.00 J					
Benzo(g,h,i)perylene			2,300,000	6,900,000	41,000,000	123,000,000	32,000,000
	038S0T2701	1000.00 J					
	038S0T3801	260.00 J					
Chrysene			140,000	420,000	450,000	1,350,000	77,000
	038S0T0502	1100.00 J					
	038S0T1101	470.00 J					
	038S0T2701	2200.00 J					
Fluoranthene			2,900,000	8,700,000	48,000,000	144,000,000	1,200,000
	038S0T0502	1700.00 J					
	038S0T1101	490.00 J					
	038S0T2701	3700.00					
Fluorene			2,200,000	6,600,000	28,000,000	84,000,000	160,000
	038S0T0502	790.00 J					
Indeno(1,2,3-cd)pyrene			1,500	4,500	5,300	15,900	28,000
	038S0T2701	1000.00 J					
Naphthalene			40,000	120,000	270,000	810,000	1,700
	038S0T0502	440.00 J					
Phenanthrene			2,000,000	6,000,000	30,000,000	90,000,000	250,000
	038S0T0502	17000.00					
	038S0T2701	340.00 J					
Pyrene			2,200,000	6,600,000	37,000,000	111,000,000	880,000
	038S0T0502	1800.00 J					
	038S0T1101	480.00 J					
	038S0T2701	3500.00					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

EPA DATA - SURFACE SOIL
COMPARISON OF VOC DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result	Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
1,1,1-Trichloroethane			400,000	1,200,000	3,300,000	9,900,000	1,900
	038S0T0502	310.00					
	038S0T2902	7.80 J					
Tetrachloroethene			8,900	26,700	17,000	51,000	30
	038S0I1001	9.20 J					
	038S0I1002	1100.00 J					X
	038S0T0502	810.00 J					X
	038S0T2802	4.80 J					
	038S0T2902	34.00 J					X
	038S0T3002	27.00 J					
	038S0T3101	8.60 J					
	038S0T4102	8.20 J					
Toluene			380,000	1,140,000	2,600,000	7,800,000	500
	038S0T0601	8.70 J					
	038S0T2301	6.90 J					
	038S0T3101	5.80 J					
	038S0T3601	13.00 J					
	038S0T3801	5.90 J					
Trichloroethene			6,000	18,000	8,500	25,500	30
	038S0T0502	200.00					X
	038S0T4102	6.70 J					

Notes:
All concentrations and criteria are in micrograms per kilogram (ug/kg).

Hexavalent Chromium Data

Surface Soil

CHROMIUM ANALYSIS - SURFACE SOIL
COMPARISON OF HEXAVALENT CHROMIUM DETECTIONS TO SCTLs & LEACHABILITY CRITERIA

Parameter	Sample ID	Result		Residential Exposure SCTL	Residential Exposure 3x SCTL	Industrial Exposure SCTL	Industrial Exposure 3x SCTL	Leachability Based On Groundwater Criteria
Chromium				210	630	420	1,260	38
038S013A02	Chromium	40.10	J					X
038S013B02	Chromium	383.00	J	X				X
038S014A02	Chromium	0.99	J					

Notes:
All concentrations and criteria are in milligrams per kilogram (mg/kg).

APPENDIX B

ANALYTICAL DATA USED FOR DISTRIBUTION TESTING AND 95% UCL CALCULATIONS

NAS Pensacola - Site 38
Building 71 - Surface Soil
Data Used for 95% UCL Calculations

	Chromium		Copper	
Sample ID	**Result**	**Value Used**	**Result**	**Value Used**
036S080C02	2.1	2.1	8	8
036S080S02	3.4	3.4	5340	5340
036S081C02	12.3	12.3	17.6	17.6
036S081W02	0.54 U	0.27	1.7 J	1.7
038S000102	22.1	22.1	9.2	9.2
038S000301	3.7	3.7	10.6	10.6
038S000402	4.7	4.7	21.7	21.7
038S000501	10	10	30.8	30.8
038S000701	28.6	28.6	31.6	31.6
038S000801	2.4	2.4	4.6	4.6
038S000901	6.9	6.9	19	19
038S001001	103	103	13.5	13.5
038S001101	9.4	9.4	1 U	0.5
038S001201	80.2	80.2	13.2	13.2
038S001301	713	713	9.8	9.8
038S001401	665	665	155	155
038S001501	17.5	17.5	9.2	9.2
038S001601	12.6	12.6	11.8	11.8
038S001701	53.4	53.4	9.6	9.6
038S001801	291	291	41.2	41.2
038S001901	6.6	6.6	23.2	23.2
038S001902	6.3	6.3	23.2	23.2
038S002201	10.2	10.2	6.5	6.5
038S002501	7	7	3	3
038S002702	6	6	19	19
038S002901	15	15	26	26
038S003001	2.1 J	2.1	2.2	2.2
038S003101	4.2 J	4.2	27.2	27.2
038S003201	5	5	131	131
038S003301	18.3 J	18.3	22	22
038S003401	21.1 J	21.1	6.6	6.6
038S0I1001	93	93	5.4	5.4
038S0I1002	20	20	2.8	2.8
038S0S2301	3	3	4.1	4.1
038S0S2302	1.7	1.7	17	17
038S0T0501	1 U	0.5	1 U	0.5
038S0T0502	3.8	3.8	18	18

Notes:
One-half the detection limit was used for non-detects.

NAS Pensacola - Site 38
Building 604 - Surface Soil
Data Used for 95% UCL Calculations

	Copper			Iron		
Sample ID	Result		Value Used	Result		Value Used
036S073C02	21.4		21.4	763		763
036S074C02	15.9		15.9	629		629
036S074N02	607		607	24900		24900
036S074W02	117		117	3880		3880
036S075C02	12.3		12.3	706	J	706
036S075E02	391		391	4380	J	4380
036S076C02	28.9		28.9	2100	J	2100
036S076E02	32.6		32.6	287	J	287
036S076S02	12.7		12.7	598	J	598
036S076W02	16.2		16.2	504	J	504
036S077C02	16.1		16.1	993	J	993
036S077N02	0.79	J	0.79	50.2	J	50.2
036S077S02	2.6	J	2.6	1130		1130
036S077W02	4.4		4.4	1250	J	1250
036S078C02	15.6		15.6	1070		1070
036S078E02	264		264	1950	U	975
036S078S02	75.9		75.9	1560		1560
036S078W02	1.2	J	1.2	6130		6130
036S079C02	13.6		13.6	519	J	519
036S079W02	5.7		5.7	342	J	342
038S002601	33.4		33.4	6860		6860
038S002801	8		8	972		972
038S003501	46.4		46.4	160		160
038S003601	10.6		10.6	18800		18800
038S003701	9.3		9.3	9800		9800
038S004102	308		308	471		471
038S004202	14.9		14.9	1540		1540
038S0T0101	9.8		9.8	10000		10000
038S0T0102	1.1		1.1	150		150
038S0T0201	7.7		7.7	3500		3500
038S0T0301	35		35	3400		3400
038S0T0302	15		15	1700		1700
038S0T0401	11		11	4200		4200
038S0T0402	1	U	0.5	47		47
038S0T0601	7		7	1800		1800
038S0T0602	1	U	0.5	92		92
038S0T0701	21		21	3000		3000
038S0T0702	1	U	0.5	18		18
038S0T0801	2.6		2.6	8100		8100
038S0T0802	31		31	710		710
038S0T0901	5.4		5.4	1300		1300
038S0T0902	6		6	76		76
038S0T1001	6.3		6.3	4500		4500
038S0T1002	24		24	1500		1500
038S0T1101	140		140	6700		6700
038S0T1102	4.1		4.1	250		250

NAS Pensacola - Site 38
Building 604 - Surface Soil
Data Used for 95% UCL Calculations

	Copper		Iron	
Sample ID	**Result**	**Value Used**	**Result**	**Value Used**
038S0T1201	7.4	7.4	2900	2900
038S0T1202	1.5	1.5	220	220
038S0T1301	76	76	10000	10000
038S0T1302	14	14	3700	3700
038S0T1401	5.2	5.2	22000	22000
038S0T1402	1.4	1.4	14	14
038S0T1501	43	43	2500	2500
038S0T1502	58	58	860	860
038S0T1601	67	67	7500	7500
038S0T1602	2.3	2.3	24	24
038S0T1701	25	25	7400	7400
038S0T1702	3.9	3.9	680	680
038S0T1801	32	32	7900	7900
038S0T1802	100	100	6800	6800
038S0T1901	4.8	4.8	18000	18000
038S0T1902	32	32	1400	1400
038S0T2001	7	7	16000	16000
038S0T2002	1 U	0.5	32	32
038S0T2201	1 U	0.5	170	170
038S0T2202	36	36	350	350
038S0T2301	46	46	7000	7000
038S0T2302	1 U	0.5	87	87
038S0T2501	7.3	7.3	8800	8800
038S0T2502	1.1	1.1	85	85
038S0T2601	3.2	3.2	260	260
038S0T2602	3.7	3.7	110	110
038S0T2701	1 U	0.5	210	210
038S0T2702	5.7	5.7	120	120
038S0T2801	1 U	0.5	34	34
038S0T2802	10	10	270	270
038S0T2901	1 U	0.5	2000	2000
038S0T2902	35	35	2100	2100
038S0T3002	3.7	3.7	180	180
038S0T3101	140	140	1300	1300
038S0T3102	1.2	1.2	160	160
038S0T3201	1 U	0.5	51	51
038S0T3202	1 U	0.5	29	29
038S0T3301	3.3	3.3	400	400
038S0T3302	1 U	0.5	100	100
038S0T3401	6.5	6.5	3400	3400
038S0T3402	1 U	0.5	130	130
038S0T3501	11	11	4200	4200
038S0T3502	1.8	1.8	150	150
038S0T3601	11	11	2100	2100
038S0T3602	1 U	0.5	37	37
038S0T3701	18	18	3200	3200

NAS Pensacola - Site 38
Building 604 - Surface Soil
Data Used for 95% UCL Calculations

	Copper			Iron	
Sample ID	**Result**		**Value Used**	**Result**	**Value Used**
038S0T3702	1	U	0.5	41	41
038S0T3801	28		28	4600	4600
038S0T3901	43		43	8200	8200
038S0T4001	59		59	4500	4500
038S0T4002	17		17	390	390
038S0T4101	210		210	3900	3900
038S0T4102	7.8		7.8	170	170
038S0T4201	190	A	190	2400	2400

Notes:
One-half the detection limit was used for non-detects.

NAS Pensacola - Site 38
Building 71 - Subsurface Soil
Data Used for 95% UCL Calculations

	Chromium		Copper	
Sample ID	**Result**	**Value Used**	**Result**	**Value Used**
036S081C04	7.2	7.2	0.46 J	0.46
036S081S03	1.1 J	1.1	2.5 J	2.5
036S081W04	0.58 U	0.29	0.39 U	0.195
038S000104	2.1 U	1.05	13.1	13.1
038S000106	7.1	7.1	13.8	13.8
038S000303	3.9	3.9	8.3	8.3
038S000305	3.5	3.5	8.1	8.1
038S000404	2.6	2.6	21.8	21.8
038S000503	2.1 U	1.05	27.6	27.6
038S000505	2.3 U	1.15	8.1	8.1
038S000703	12.8	12.8	86	86
038S000705	4.9	4.9	38.4	38.4
038S000803	6	6	13.4	13.4
038S000804	3.2	3.2	3.4	3.4
038S000903	2.3	2.3	6.4	6.4
038S001003	31.5	31.5	3.6	3.6
038S001004	5.4	5.4	3.4	3.4
038S001103	10.5	10.5	1 U	0.5
038S001104	13.2	13.2	2 U	1
038S001203	13.3	13.3	112	112
038S001204	19.4	19.4	29.8	29.8
038S001303	553	553	73.2	73.2
038S001304	296	296	60.1	60.1
038S001403	331	331	390	390
038S001405	155	155	43	43
038S001503	12	12	44	44
038S001603	58.8	58.8	12.1	12.1
038S001605	10.5	10.5	1.9	1.9
038S001703	17.3	17.3	5.5	5.5
038S001705	8.8	8.8	9	9
038S001803	48.5	48.5	33.6	33.6
038S001805	87.8	87.8	51.4	51.4
038S002203	2.2	2.2	2.4	2.4
038S002403	4	4	4	4
038S002503	9	9	2 U	1
038S002704	6	6	27	27
038S003003	1.7 J	1.7	7.4	7.4
038S003103	2.9 J	2.9	43.8	43.8
038S003203	3	3	45	45
038S003205	11	11	8	8
038S003303	1.9 J	1.9	19.2	19.2
038S003403	4.2 J	4.2	8.4	8.4

Notes:
One-half the detection limit was used for non-detects.

NAS Pensacola - Site 38
Building 604 - Subsurface Soil
Data Used for 95% UCL Calculations

	Copper		Iron	
Sample ID	**Result**	**Value Used**	**Result**	**Value Used**
036S073C04	27.1	27.1	856	856
036S074C04	31.5	31.5	2230	2230
036S074N04	1.2 J	1.2	106	106
036S074W04	10.4	10.4	893	893
036S075C04	23.8	23.8	616 J	616
036S075E06	129	129	32900 J	32900
036S076E04	79.7	79.7	368 J	368
036S076W04	20.3	20.3	1190 J	1190
036S077C04	26	26	2010 J	2010
036S077N04	5.2	5.2	71.4 J	71.4
036S077S04	0.86 J	0.86	68 J	68
036S077W04	5.7	5.7	795	795
036S078C04	8	8	2800	2800
036S078E04	3.7	3.7	87.7 J	87.7
036S078W04	2.4	2.4	44.4	44.4
036S079C04	0.98 J	0.98	25.1	25.1
036S079W04	0.44 J	0.44	33.1 J	33.1
038S002603	177	177	7330	7330
038S002605	102	102	14800	14800
038S002803	20	20	1510	1510
038S003503	7.8	7.8	513	513
038S003603	10.2	10.2	936	936
038S003703	5.4	5.4	3120	3120
038S004104	71.4	71.4	124	124
038S004106	11.4	11.4	58	58
038S004204	14.7	14.7	1560	1560
038S004206	3.7	3.7	376	376

Notes:
One-half the detection limit was used for non-detects.

APPENDIX C

LEAD MODELING RESULTS

Building 71 – Surface Soil

Figure C-1

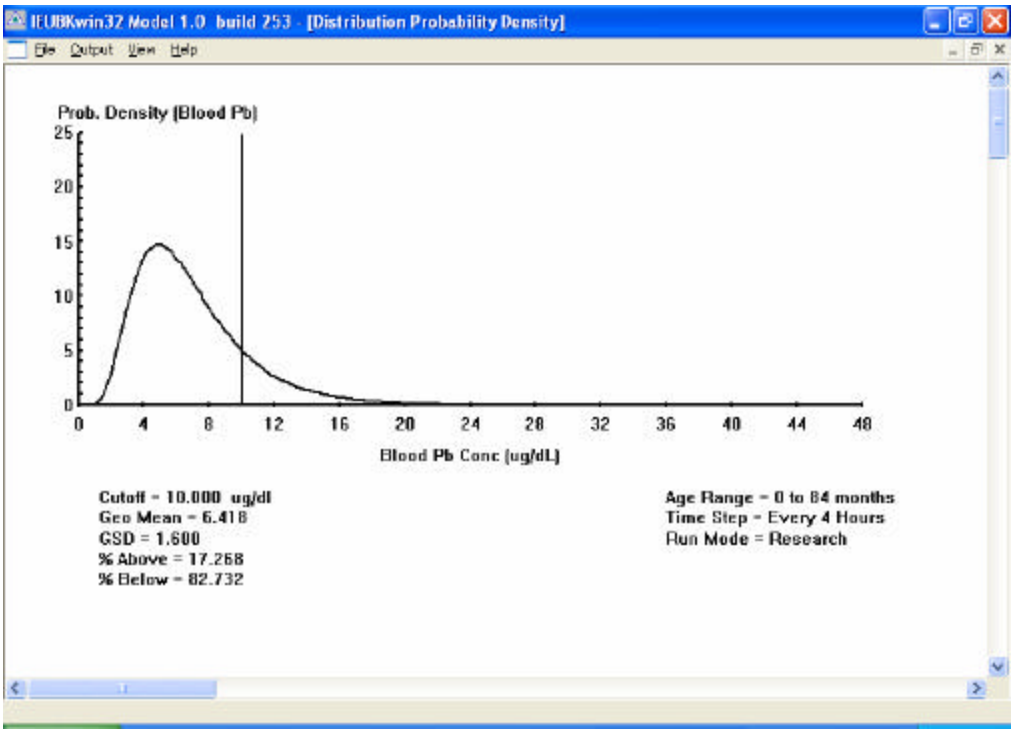

IEUBKwin32 Model 1.0 build 253 - [Distribution Probability Density]
File Output View Help
Prob. Density (Blood Pb)
25
20
15
10
5
0
0 4 8 12 16 20 24 28 32 36 40 44 48
Blood Pb Conc (ug/dL)
Cutoff = 10.000 ug/dl
Geo Mean = 6.418
GSD = 1.600
% Above = 17.268
% Below = 82.732
Age Range = 0 to 84 months
Time Step = Every 4 Hours
Run Mode = Research

Table C-1

LEAD MODEL FOR WINDOWS Version 1.0

==========

Model Version: 1.0 Build 253
User Name:
Date:
Site Name:
Operable Unit:
Run Mode: Research

==========

The time step used in this model run: 1 - Every 4 Hours (6 times a day).

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (ug Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(ug/day)
.5-1	5.530
1-2	5.780
2-3	6.490
3-4	6.240
4-5	6.010
5-6	6.340
6-7	7.000

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 62.620 ug Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 62.325 ug/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
.5-1	74.750	62.325
1-2	74.750	62.325
2-3	74.750	62.325
3-4	74.750	62.325
4-5	74.750	62.325
5-6	74.750	62.325
6-7	74.750	62.325

****** Alternate Intake ******

Age	Alternate (ug Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 2.500 ug Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (ug/dL)	Diet (ug/day)	Alternate (ug/day)	Water (ug/day)
.5-1	0.021	2.475	0.000	5.605
1-2	0.034	2.458	0.000	13.315
2-3	0.062	2.804	0.000	14.071
3-4	0.067	2.746	0.000	14.606
4-5	0.067	2.690	0.000	15.416
5-6	0.093	2.860	0.000	16.385
6-7	0.093	3.176	0.000	16.764

Year	Soil+Dust (ug/day)	Total (ug/day)	Blood (ug/dL)
.5-1	1.550	9.652	5.2
1-2	2.339	18.147	7.2
2-3	2.377	19.315	7.1
3-4	2.421	19.840	6.9
4-5	1.824	19.997	6.6
5-6	1.654	20.993	6.4
6-7	1.572	21.606	6.0

Building 71 – Subsurface Soil

Figure C-2

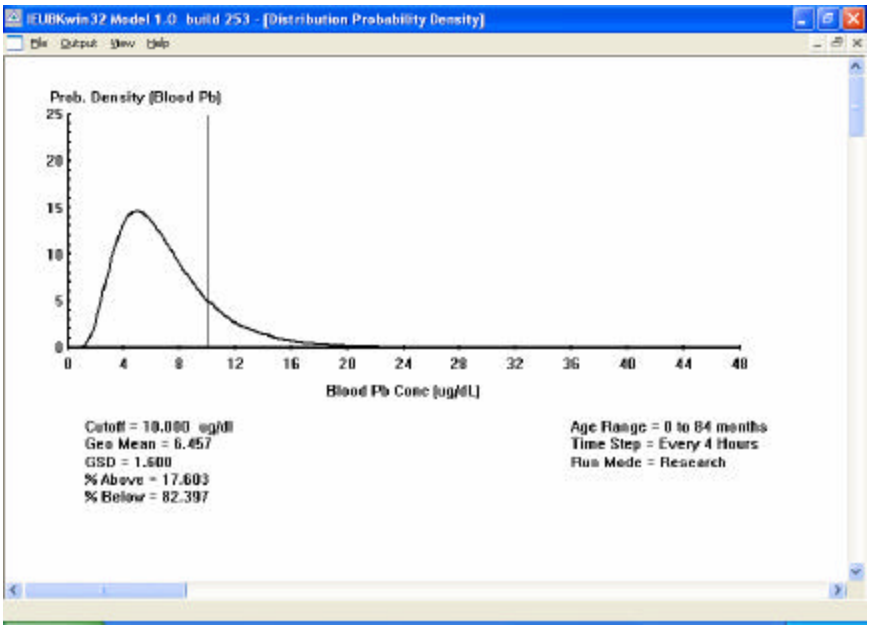

IEUBKwin32 Model 1.0 build 253 - [Distribution Probability Density]
File Output View Help
Prob. Density (Blood Pb)
25
20
15
10
5
0
0 4 8 12 16 20 24 28 32 36 40 44 48
Blood Pb Conc (ug/dL)
Cutoff = 10.000 ug/dl
Geo Mean = 6.457
GSD = 1.600
% Above = 17.603
% Below = 82.397
Age Range = 0 to 84 months
Time Step = Every 4 Hours
Run Mode = Research

Table C-2

LEAD MODEL FOR WINDOWS Version 1.0

==========

Model Version: 1.0 Build 253
User Name:
Date:
Site Name:
Operable Unit:
Run Mode: Research

==========

The time step used in this model run: 1 - Every 4 Hours (6 times a day).

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (ug Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(ug/day)
.5-1	5.530
1-2	5.780
2-3	6.490
3-4	6.240
4-5	6.010
5-6	6.340
6-7	7.000

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 62.620 ug Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 65.909 ug/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
.5-1	79.870	65.909
1-2	79.870	65.909
2-3	79.870	65.909
3-4	79.870	65.909
4-5	79.870	65.909
5-6	79.870	65.909
6-7	79.870	65.909

****** Alternate Intake ******

Age	Alternate (ug Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 2.500 ug Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (ug/dL)	Diet (ug/day)	Alternate (ug/day)	Water (ug/day)
.5-1	0.021	2.473	0.000	5.600
1-2	0.034	2.455	0.000	13.300
2-3	0.062	2.802	0.000	14.057
3-4	0.067	2.744	0.000	14.593
4-5	0.067	2.689	0.000	15.407
5-6	0.093	2.859	0.000	16.377
6-7	0.093	3.175	0.000	16.757

Year	Soil+Dust (ug/day)	Total (ug/day)	Blood (ug/dL)
.5-1	1.646	9.739	5.2
1-2	2.484	18.273	7.3
2-3	2.524	19.445	7.1
3-4	2.571	19.975	6.9
4-5	1.938	20.100	6.6
5-6	1.758	21.087	6.4
6-7	1.670	21.696	6.1

Building 604 – Surface Soil

Figure C-3

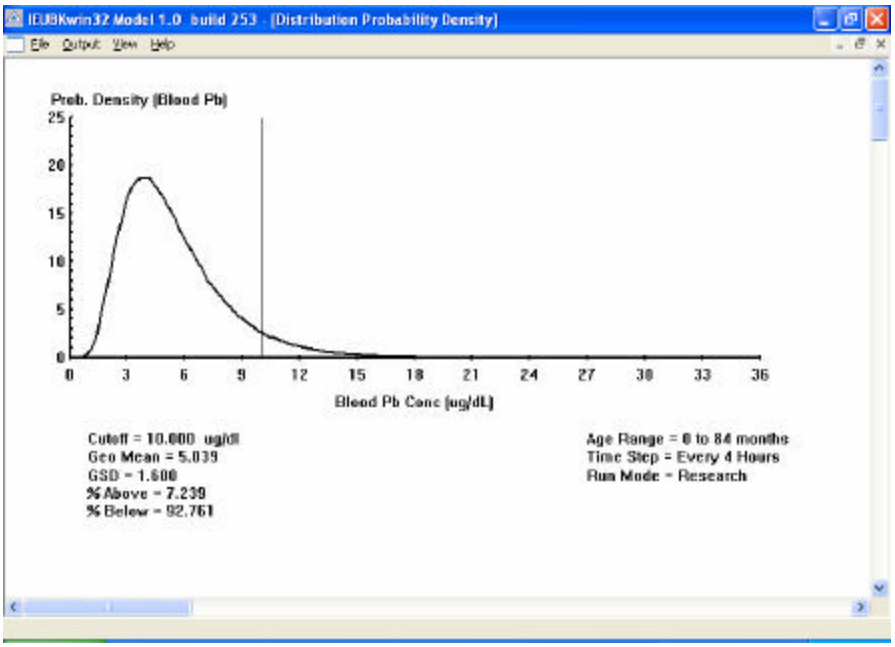

IEUBKwin32 Model 1.0 build 253 - [Distribution Probability Density]
File Output View Help
Prob. Density (Blood Pb)
25
20
15
10
5
0
0 3 6 9 12 15 18 21 24 27 30 33 36
Blood Pb Conc (ug/dL)
Cutoff = 10.000 ug/dl
Geo Mean = 5.039
GSD = 1.600
% Above = 7.239
% Below = 92.761
Age Range = 0 to 84 months
Time Step = Every 4 Hours
Run Mode = Research

Table C-3

LEAD MODEL FOR WINDOWS Version 1.0

==========

Model Version: 1.0 Build 253
User Name:
Date:
Site Name:
Operable Unit:
Run Mode: Research

==========

The time step used in this model run: 1 - Every 4 Hours (6 times a day).

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (ug Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(ug/day)
.5-1	5.530
1-2	5.780
2-3	6.490
3-4	6.240
4-5	6.010
5-6	6.340
6-7	7.000

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 40.900 ug Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 68.037 ug/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
.5-1	82.910	68.037
1-2	82.910	68.037
2-3	82.910	68.037
3-4	82.910	68.037
4-5	82.910	68.037
5-6	82.910	68.037
6-7	82.910	68.037

****** Alternate Intake ******

Age	Alternate (ug Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 2.500 ug Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (ug/dL)	Diet (ug/day)	Alternate (ug/day)	Water (ug/day)
.5-1	0.021	2.523	0.000	3.732
1-2	0.034	2.547	0.000	9.012
2-3	0.062	2.896	0.000	9.492
3-4	0.067	2.827	0.000	9.819
4-5	0.067	2.763	0.000	10.344
5-6	0.093	2.934	0.000	10.979
6-7	0.093	3.254	0.000	11.217

Year	Soil+Dust (ug/day)	Total (ug/day)	Blood (ug/dL)
.5-1	1.739	8.015	4.3
1-2	2.667	14.260	5.7
2-3	2.701	15.152	5.6
3-4	2.742	15.455	5.4
4-5	2.062	15.235	5.1
5-6	1.868	15.874	4.8
6-7	1.772	16.336	4.6

Building 604 – Subsurface Soil

Figure C-4

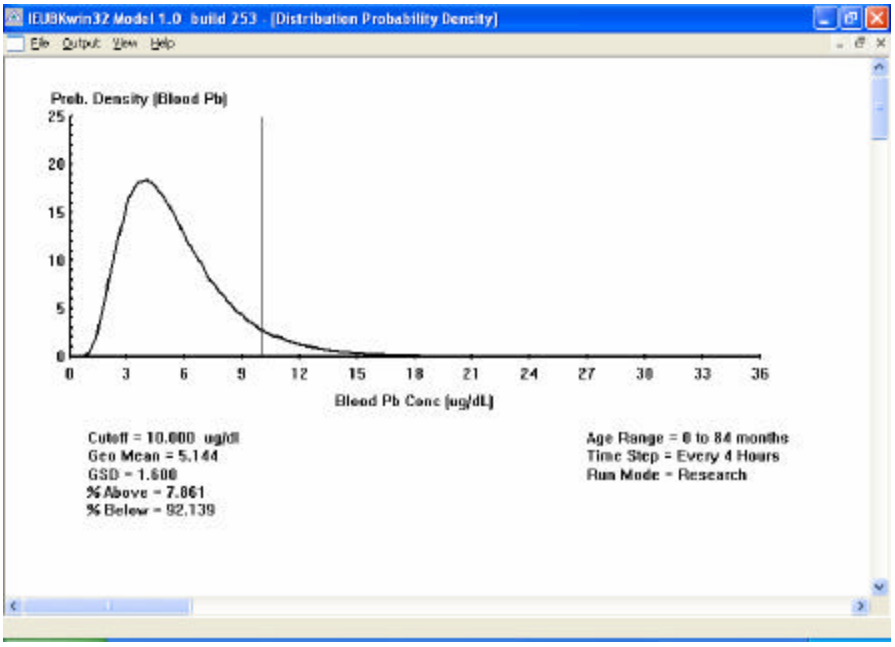

IEUBKwin32 Model 1.0 build 253 - [Distribution Probability Density]
File Output View Help
Prob. Density (Blood Pb)
25
20
15
10
5
0
0 3 6 9 12 15 18 21 24 27 30 33 36
Blood Pb Conc (ug/dL)
Cutoff = 10.000 ug/dl
Geo Mean = 5.144
GSD = 1.600
% Above = 7.861
% Below = 92.139
Age Range = 0 to 84 months
Time Step = Every 4 Hours
Run Mode = Research

Table C-4

LEAD MODEL FOR WINDOWS Version 1.0

==========

Model Version: 1.0 Build 253
User Name:
Date:
Site Name:
Operable Unit:
Run Mode: Research

==========

The time step used in this model run: 1 - Every 4 Hours (6 times a day).

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (ug Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(ug/day)
.5-1	5.530
1-2	5.780
2-3	6.490
3-4	6.240
4-5	6.010
5-6	6.340
6-7	7.000

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 40.900 ug Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 76.997 ug/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
.5-1	95.710	76.997
1-2	95.710	76.997
2-3	95.710	76.997
3-4	95.710	76.997
4-5	95.710	76.997
5-6	95.710	76.997
6-7	95.710	76.997

****** Alternate Intake ******

Age	Alternate (ug Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 2.500 ug Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (ug/dL)	Diet (ug/day)	Alternate (ug/day)	Water (ug/day)
.5-1	0.021	2.516	0.000	3.722
1-2	0.034	2.539	0.000	8.984
2-3	0.062	2.889	0.000	9.466
3-4	0.067	2.820	0.000	9.797
4-5	0.067	2.759	0.000	10.328
5-6	0.093	2.931	0.000	10.966
6-7	0.093	3.250	0.000	11.205

Year	Soil+Dust (ug/day)	Total (ug/day)	Blood (ug/dL)
.5-1	1.982	8.242	4.5
1-2	3.040	14.597	5.9
2-3	3.080	15.497	5.7
3-4	3.127	15.810	5.5
4-5	2.353	15.507	5.2
5-6	2.132	16.122	4.9
6-7	2.023	16.572	4.7

APPENDIX D

STATISTICAL ANALYSIS SUMMARY TABLE

Site 38 - Building 71
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
Aroclor-1254	Surface	34	31	91%	N/A	N/A	N/A	038S001801	A	038S001801	A
Aroclor-1254	Subsurface	42	38	90%	N/A	N/A	N/A	038S001803	A	038S001803	A
								038S001805	A	038S001805	A
Arsenic	Surface	37	16	43%	N/A	N/A	N/A	038S003201	B	None	
								038S003301	B		
Arsenic	Subsurface	42	24	57%	N/A	N/A	N/A	038S001204	A	038S001204	A
								038S001303	A		
								038S001304	A		
B(a)P	Surface	37	28	76%	N/A	N/A	N/A	038S000301	B	038S0I1001	B
								038S000402	B	038S0I1002	B
								038S000501	B	038S0S2301	B
								038S001601	A	038S0S2302	B
								038S001701	A	038S0T0501	A
								038S001801	A		
								038S001902	A		
								038S002201	D		
								038S002501	B		
								038S002702	B		
								038S003201	B		
								038S0I1001	B		
								038S0I1002	B		
								038S0S2301	B		
								038S0S2302	B		
								038S0T0501	A		
								038S0T0502	A		
B(a)P	Subsurface	42	36	86%	N/A	N/A	N/A	038S000106	D	None	
								038S000303	B		
								038S000305	B		
								038S000503	B		
								038S000505	B		
								038S001203	A		
								038S001603	A		
								038S001605	A		
								038S001703	A		
								038S001705	A		
								038S001803	A		
								038S001805	A		
								038S002203	D		
								038S002403	B		
								038S002503	B		
								038S002704	B		
								038S003203	B		
								038S003205	B		
								038S003403	B		

Site 38 - Building 71
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
B(b)F	Subsurface	42	30	71%	N/A	N/A	N/A	None		None	
Chromium	Surface	37	2	5%	No	Yes	119.7	038S001301	A	None	
								038S001401	A		
Chromium	Subsurface	42	4	10%	No	No	N/A	None		None	
Copper	Surface	37	2	5%	No	No	N/A	036S080S02*	D	None	
								038S001401*	A		
								038S003201*	B		
Copper	Subsurface	42	4	10%	No	No	N/A	038S001203*	A	None	
								038S001403*	A		
D(a,h)A	Surface	37	33	89%	N/A	N/A	N/A	038S000301	B	038S0I1001	
								038S000402	B	038S0I1002	
								038S000501	B	038S0S2301	
								038S001601	A	038S0S2302	
								038S001701	A	038S0T0501	
								038S001801	A	038S0T0502	
								038S001901	A		
								038S001902	A		
								038S002201	D		
								038S002501	B		
								038S002702	B		
								038S003401	B		
								038S0I1001	B		
								038S0I1002	B		
								038S0S2301	B		
								038S0S2302	B		
								038S0T0501	A		
								038S0T0502	A		
D(a,h)A	Subsurface	42	37	88%	N/A	N/A	N/A	038S000303	B	None	
								038S000305	B		
								038S000503	B		
								038S000505	B		
								038S001603	A		
								038S001605	A		
								038S001703	A		
								038S001705	A		
								038S001803	A		
								038S001805	A		
								038S002203	D		
								038S002403	B		
								038S002503	B		
								038S002704	B		
								038S003203	B		
								038S003205	B		
								038S003403	B		

Site 38 - Building 71
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
Lead	Subsurface	42	0	0%	No	No	N/A	None		None	
Vanadium	Surface	37	19	51%	N/A	N/A	N/A	038S000102	D	None	
								038S001601	A		
								038S003301	B		
								038S003401	B		

Notes:
Samples that were non-detect and exceeded the SCTL are noted in blue. One-half the non-detect value was used for screening.
* - Direct exposure based on acute toxicity considerations. RSCTL cannot be exceeded for Residential senario.

A - Former Building 71 concrete foundation.
B - Concrete surface.
C - Grass turf surface.
D - Asphalt surface.

Site 38 - Building 604
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
Aroclor-1260	Surface	51	48	94%	N/A	N/A	N/A	None		None	
Arsenic	Surface	100	61	61%	N/A	N/A	N/A	036S074N02	A	038S003501	B
								036S074W02	A		
								036S075E02	A		
								036S078E02	A		
								038S002601	B		
								038S003501	B		
								038S003601	A		
								038S003701	B		
								038S0T0101	A		
								038S0T0201	B		
								038S0T0301	B		
								038S0T0401	B		
								038S0T0801	A		
								038S0T0901	A		
								038S0T1101	B		
								038S0T1301	A		
								038S0T1401	A		
								038S0T1501	B		
								038S0T1601	B		
								038S0T1701	B		
								038S0T1801	B		
								038S0T1802	B		
								038S0T1901	A		
								038S0T2001	A		
								038S0T2301	C		
								038S0T2501	B		
								038S0T3901	B		
Arsenic	Subsurface	27	10	37%	N/A	N/A	N/A	036S075E06	A	None	
								038S002603	B		
								038S002605	B		
								038S003503	B		
								038S003603	A		
B(a)A	Surface	100	91	91%	N/A	N/A	N/A	038S0T4201	B	None	
B(a)A	Subsurface	27	24	89%	N/A	N/A	N/A	036S074C04	A	None	
B(a)P	Surface	101	90	89%	N/A	N/A	N/A	036S074W02	A	038S0T0101	A
								036S075C02	B	038S0T0102	A
								036S077W02	A	038S0T0201	B
								038S002801	D	038S0T0301	B
								038S003501	B	038S0T0302	B
								038S0T0101	A	038S0T0401	B

Site 38 - Building 604
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
								038S0T0102	A	038S0T0402	B
								038S0T0201	B	038S0T0601	B
								038S0T0301	B	038S0T0602	B
								038S0T0302	B	038S0T0701	B
								038S0T0401	B	038S0T0702	B
								038S0T0402	B	038S0T0801	A
								038S0T0601	B	038S0T0802	A
								038S0T0602	B	038S0T0901	A
								038S0T0701	B	038S0T0902	A
								038S0T0702	B	038S0T1001	B
								038S0T0801	A	038S0T1002	B
								038S0T0802	A	038S0T1101	B
								038S0T0901	A	038S0T1102	B
								038S0T0902	A	038S0T1201	B
								038S0T1001	B	038S0T1202	B
								038S0T1002	B	038S0T1301	A
								038S0T1101	B	038S0T1302	A
								038S0T1102	B	038S0T1401	A
								038S0T1201	B	038S0T1402	A
								038S0T1202	B	038S0T1501	B
								038S0T1301	A	038S0T1502	B
								038S0T1302	A	038S0T1601	B
								038S0T1401	A	038S0T1602	B
								038S0T1402	A	038S0T1701	B
								038S0T1501	B	038S0T1702	B
								038S0T1502	B	038S0T1801	B
								038S0T1601	B	038S0T1802	B
								038S0T1602	B	038S0T1901	A
								038S0T1701	B	038S0T1902	A
								038S0T1702	B	038S0T2001	A
								038S0T1801	B	038S0T2002	A
								038S0T1802	B	038S0T2201	D
								038S0T1901	A	038S0T2301	C
								038S0T1902	A	038S0T2302	C
								038S0T2001	A	038S0T2501	B
								038S0T2002	A	038S0T2602	D
								038S0T2201	D	038S0T2701	D
								038S0T2202	D	038S0T2702	D
								038S0T2301	C	038S0T2802	D
								038S0T2302	C	038S0T2901	C
								038S0T2501	B	038S0T2902	C

Site 38 - Building 604
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
								038S0T2502	B	038S0T3002	D
								038S0T2601	D	038S0T3101	B
								038S0T2602	D	038S0T3102	B
								038S0T2701	D	038S0T3202	D
								038S0T2702	D	038S0T3302	D
								038S0T2801	D	038S0T3401	B
								038S0T2802	D	038S0T3402	B
								038S0T2901	C	038S0T3501	B
								038S0T2902	C	038S0T3502	B
								038S0T3002	D	038S0T3601	C
								038S0T3101	B	038S0T3602	C
								038S0T3102	B	038S0T3701	B
								038S0T3201	D	038S0T3702	B
								038S0T3202	D	038S0T3801	B
								038S0T3301	D	038S0T3901	B
								038S0T3302	D	038S0T4001	B
								038S0T3401	B	038S0T4101	B
								038S0T3402	B	038S0T4102	B
								038S0T3501	B	038S0T4201	B
								038S0T3502	B		
								038S0T3601	C		
								038S0T3602	C		
								038S0T3701	B		
								038S0T3702	B		
								038S0T3801	B		
								038S0T3901	B		
								038S0T4001	B		
								038S0T4002	B		
								038S0T4101	B		
								038S0T4102	B		
								038S0T4201	B		
B(a)P	Subsurface	27	23	85%	N/A	N/A	N/A	036S074C04	A	036S074C04	A
								038S002803	D		
								038S003503	B		
								038S003603	A		
								038S003703	B		
B(b)F	Surface	100	89	89%	N/A	N/A	N/A	038S0T4201	B	None	
B(b)F	Subsurface	27	22	81%	N/A	N/A	N/A	036S074C04	A	None	
Copper	Surface	100	15	15%	No	No	N/A	036S074N02*	A	None	
								036S074W02*	A		
								036S075E02*	A		

Site 38 - Building 604
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description
								036S078E02*	A		
								038S004102*	A		
								038S0T1101*	B		
								038S0T3101*	B		
								038S0T4101*	B		
								038S0T4201*	B		
Copper	Subsurface	27	0	0%	No	No	N/A	036S075E06*	A	None	
								038S002603*	B		
D(a,h)A	Subsurface	27	26	96%	N/A	N/A	N/A	036S074C04	A	None	
								038S002603	B		
								038S002803	D		
								038S003503	B		
								038S003603	A		
								038S003703	B		
								038S004204	C		
Dieldrin	Surface	51	41	80%	N/A	N/A	N/A	None		None	
I(1,2,3-cd)P	Subsurface	27	23	85%	N/A	N/A	N/A	None		None	
Iron	Surface	100	1	1%	No	Yes	8197.2	None		None	
Iron	Subsurface	27	0	0%	No	No	N/A	None		None	
Lead	Surface	100	11	11%	No	No	N/A	None		None	
Lead	Subsurface	27	0	0%	No	No	N/A	None		None	
Vanadium	Surface	107	43	40%	N/A	N/A	N/A	036S078W02*	A	None	
								038S002601*	B		
								038S003501*	B		
								038S003601*	A		
								038S003701*	B		
								038S0T0101*	A		
								038S0T0801*	A		
								038S0T0901*	A		
								038S0T1301*	A		
								038S0T1401*	A		
								038S0T1601*	B		
								038S0T1801*	B		
								038S0T1901*	A		
								038S0T2001*	A		
								038S0T2301*	C		
								038S0T2501*	B		
								038S0T3901*	C		
Vanadium	Subsurface	27	12	44%	N/A	N/A	N/A	036S075E06	A	None	

Notes:

Site 38 - Building 604
Statistical Analysis Summary Table

Parameter	Surface or Subsurface Soil	Number of Samples	Number of Non-detects	Percentage of Nondetects	Pass Normal?	Pass Lognormal?	UCL	Samples Exceeding 3X RSCTL	Surface Description	Samples Exceeding 3X ISCTL	Surface Description

Samples that were non-detect and exceeded the SCTL are noted in blue. One-half the non-detect value was used for screening.
* - Direct exposure based on acute toxicity considerations. RSCTL cannot be exceeded for Residential senario.

A - Asphalt surface.
B - Grass turf surface.
C - Concrete surface.
D - Inside Building 604.