



DEPARTMENT OF THE NAVY

CRANE DIVISION  
NAVAL SURFACE WARFARE CENTER  
300 HIGHWAY 361  
CRANE INDIANA 47522-5001

IN REPLY REFER TO:

5090/S4.7.1  
Ser PRCR4/6280

6 SEP 2006

Indiana Department Of Environmental Management  
Office Of Land Quality  
Hazardous Waste Permits  
100 North Senate Ave.  
MC 64-45 IGCN 1101  
Indianapolis, IN 46204-2251

Dear Mr. Griffin:

Crane Division, Naval Surface Warfare Center submits a revised sampling and analysis plan for delineation of contamination south of the Building 106 Pond (B106P), Solid Waste Management Unit 08. This is in support of the ongoing RCRA Facility Investigation. The revision, presented as enclosure (1) includes the additional sampling points you requested. The permit required Certification Statement is provided as enclosure (2).

If you require any further information, my point of contact is Mr. Thomas J. Brent, Code PRCR4-TB, at 812-854-6160, email thomas.brent@navy.mil.

Sincerely,

*J. M. Hunsicker*

J. M. HUNSICKER

Environmental Site Manager

By direction of the Commanding Officer

Enclosures: 1. Revised Delineation Sampling Plan for B106P  
2. Certification Statement

Copy to:

ADMINISTRATIVE RECORD

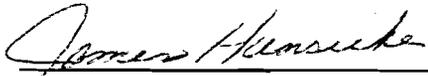
NAVFAC SE (Code OPGEVR) (w/o encl)

USEPA (Pete Ramanuskas)

TTNUS (Ralph Basinski) (w/o encl)

NAVFAC MW (Howard Hickey)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

  
\_\_\_\_\_  
SIGNATURE

Manager, Environmental Protection  
\_\_\_\_\_  
TITLE

9/06/06  
\_\_\_\_\_  
DATE

**SAMPLING AND ANALYSIS PLAN FOR ADDITIONAL INVESTIGATION**

**SOUTH OF BUILDING 106**

**SWMU 8 (B-106 Pond)**

**NSWC Crane**

**Crane, Indiana**

## **SAMPLING AND ANALYSIS PLAN FOR SOURCE DETECTION/DELINEATION FOR THE AREA SOUTH OF SWMU 8 - BUILDING 106 POND**

### **1.0 BACKGROUND**

Select ketones (i.e., acetone and 2-butanone) and 1,1,1-Trichloroethane (1,1,1-TCA) were identified in the SWMU 8 Draft RFI report (TtNUS, 2005) as having different profiles in groundwater (GW) near the drum storage area located south of Building 106 than they had in GW near the pond. In addition, the concentrations of 1,1,1-TCA in well 08MWT005 located near the drum storage area was greater than expected if the pond were the source of 1,1,1-TCA. The 1,4-dioxane concentrations in wells 08MWT005 and 08MWT006 were also greater than expected if the pond were the source. Concentrations of these chemicals in groundwater are displayed on Figure 1. This conclusion is based on GW chemistry data as well as GW elevations which indicate that the pond is side gradient to well 08MWT005. This implies that there is a source of these (and other) groundwater contaminants located northwest (upgradient) of well 08MWT005. Known potential sources of these contaminants are the existing paint locker (Building 2651), and a former paint locker (Building 2796) located northwest of well 08MWT005. Building 119, also located northwest of well 08MWT005, may be another source of these groundwater contaminants. It is expected that contaminated soils would constitute the source.

Soil sample VOC concentrations from the area immediately upgradient of, downgradient of, and side gradient of wells 08MWT005 and 08MWT006 do not exceed soil cleanup standards but none of the soil samples collected to date are from the area that is most likely to be the source for contamination observed in well 08MWT005. Concentrations of select VOCs are displayed in Figure 2. All observed ketone concentrations in groundwater and soil were less than applicable screening values for human health (all soil and GW) and ecological risk (surface soil only) by an order of magnitude or more. Therefore, there is no need to investigate any additional source of ketone contamination at SWMU 8. Residential human health GW screening values for 1,1,1-TCA and 1,4-dioxane are 200 ug/L (1,1,1-TCA) and 6.1 ug/L (1,4-dioxane). The elevated 1,1,1-TCA concentration (2,700 to 3,900 ug/L in RFI sampling Rounds 1 and 2) in groundwater well 08MWT005 and the elevated 1,4-dioxane groundwater concentrations (19 to 21 ug/L) in wells 08MWT005 and 08MWT006 during RFI sampling Rounds 2 and 3 exceeded these screening values. The elevated concentrations do not appear to be caused wholly by contamination from the pond or near the pond. Therefore, additional investigation is warranted to determine whether a contaminant source can be found in the area northwest of well 08MWT005 and south of Building 106. A plan for this investigation is provided below.

## **2.0 DESCRIPTION OF SAMPLING AND ANALYSIS PLAN**

The following activities are scheduled to complete this project:

- Installation of one soil boring on the western and southern sides of building 2651 (active paint locker), southeast of Building 2773, and on the western, southern, and eastern sides of former Building 2796 (See Figure 3 and Table 1).
- Collection of one soil sample from each of these borings from the depth interval with the highest PID reading.
- An array of soil borings spanning the area east of Building 119 and south of Buildings 2773, 2651, and 106 (See Figure 3 and Table 1).
- Collection of one soil sample from each of these borings from the depth interval with the highest PID reading.
- Analysis of all collected soil samples for Target Compound List (TCL) Volatile Organic Compounds (VOCs) – same list as used in the SMWU 8 and 15 QAPP (TtNUS, 2004).
- Extraction of overburden groundwater (if available) from the overburden-bedrock interface at select soil borings as indicated in Tables 1 and 2 and on Figure 3.
- Analysis of each GW sample for TCL VOCs (same list as for soils) by SW-846 Method 8260B and 1,4-dioxane by SW-846 Method 8270C.

The data obtained from this additional investigation will identify whether a source of 1,1,1-TCA, 1,4-dioxane, or other VOCs exists in the area northwest of well 08MWT005. It will also provide volume estimates for any soil that may require remediation to remove the source term.

## **3.0 PLANNED ANALYSES**

As indicated above, samples will be analyzed for chemical constituents designed to identify contaminant source areas in soil south of Building 106 that are related to the previously detected VOC and 1,4-dioxane contamination in groundwater. Except as noted below, all field activities, chemical analyses, quality control limits, detection/quantitation limits, and data interpretation will be conducted in accordance with the specifications of the original SWMU 8 and 15 Quality Assurance Project Plan (QAPP) (TtNUS, 2004). Additional specifications particular to this plan are provided below. These specifications supersede the specifications of the original SMWU 8 and 15 QAPP.

Table 2 presents the scheduled analyses to be conducted and the methods to be used for the analyses. The requisite QC samples are included in Table 2 and descriptions of these samples are provided in TtNUS (2004). Collection of additional samples will be permitted at the discretion of the FOL. The intent

will be to obtain samples that help to identify sources of contamination for the observed VOC and 1,4-dioxane contamination in SWMU 8 groundwater southeast of Building 106.

**Notes:** Analysis of soil samples for 1,4-dioxane is not proposed because 1,4-dioxane is relatively soluble in water and is more likely to partition into the water than the soil. No soil samples collected to date have yielded detectable levels of 1,4-dioxane. The human health risk-based screening value for 1,4-dioxane in groundwater (6.1 ug/L) is relatively low and is sufficient reason to analyze for this compound in groundwater.

#### **4.0 FIELD WORK AND ANALYSIS SCHEDULE**

Assuming that soil borings are installed with direct push technology, the soil boring installation and soil and groundwater sample collection is expected to take up to 2.5 days plus travel time. The planned chemical analysis turnaround time is 35 days or less.

#### **REFERENCES**

Tetra Tech NUS, Inc. (TtNUS), 2004. Quality Assurance Project Plan for RCRA Facility Investigation at Building 106 Pond (SWMU 8), Roads and Grounds Area (SWMU 15), and Environmental Indicator Investigation for SWMU 18 (Load and Fill Area Buildings), SWMU 19 (Pyrotechnic Test Area), SWMU 20 (Crane Army Ammunition Activity Quality Assurance/Quality Control Test Area), and the Old Gun Tub Storage Lot, Naval Surface Warfare Center Crane, Crane, Indiana, September.

TtNUS, 2006. Resource Conservation and Recovery Act Facility Investigation Report for Building 106 Pond (SWMU 8), Naval Surface Warfare Center Crane, Crane, Indiana, March.

TABLE 1

**PROPOSED SOIL BORING AND GROUNDWATER SAMPLES AND RATIONALES FOR INVESTIGATION OF  
ADDITIONAL VOLATILE ORGANIC COMPOUND CONTAMINANT SOURCES SOUTH OF BUILDING 106  
SWMU 8 - BUILDING 106 POND  
NSWC CRANE  
CRANE, INDIANA**

PAGE 1 OF 3

Location <sup>(1)</sup>	Sample ID <sup>(2)</sup>	Depth	Rationale
<b>Soil Samples</b>			
08SB046	08SB046xxxx	Highest PID reading or 2 feet above bedrock	Located about half-way between Building 119 and 2773 this location will bound contamination from Bldg 2773 and provide an indication as to whether Building 119 is a contamination source.
08SB047	08SB047xxxx	Highest PID reading or 2 feet above bedrock	Located about 10 ft south of the southeastern corner of Building 2773, this location will serve to test Building 2773 and Building 2651 for being contaminant sources.
08SB048	08SB048xxxx	Highest PID reading or 2 feet above bedrock	Located about 10 feet east of Building 119 and on a line from Building 119 to former Building 2796, this location will indicate whether Building 119 is a contaminant source and will serve to bound contamination from other sources, if present.
08SB049	08SB049xxxx	Highest PID reading or 2 feet above bedrock	Located about midway between Building 119 and former Building 2796, and 10 feet south of Building 2651, this location will determine whether Building 2651 is a VOC contaminant source and will bound contamination from Buildings 2773, 2651, and former 2796, if present.
08SB050	08SB050xxxx	Highest PID reading or 2 feet above bedrock	Located immediately west of and adjacent to former Building 2796 this location will determine whether this former building is a contaminant source and will help to bound contamination from other sources, if present. Note: No soil boring is proposed immediately north of former Building 2796 because soil data for that area is already available.
08SB051	08SB051xxxx	Highest PID reading or 2 feet above bedrock	Located immediately east of and adjacent to former Building 2796, this location will determine whether this former building is a contaminant source and will help to bound contamination from other sources, if present.
08SB052	08SB052xxxx	Highest PID reading or 2 feet above bedrock	Located immediately south of and adjacent to former Building 2796, this location will determine whether this former building is a contaminant source and will help to bound contamination from other sources, if present.
08SB053	08SB053xxxx	Highest PID reading or 2 feet above bedrock	This western most boring is in a row of 4 borings along a perpendicular line drawn from a point about 2/3 of the distance from the northern wall of Building 119 to its southern wall. This location, about 10 feet east of Building 119 will help determine whether Building 119 is a VOC contaminant source and will help to bound contamination from other sources, if present. Data from this location may also provide information on the source of the low level of 1,1,1-TCA in wells 08MWT012 and 08MWT009.
08SB054	08SB054xxxx	Highest PID reading or 2 feet above bedrock	This middle boring in a row of 4 borings is along a perpendicular line drawn from a point about 2/3 of the distance from the northern wall of Building 119 to its southern wall. This location about 90 feet east of Building 119 will help determine whether the soil around the boring is a VOC contaminant source for groundwater and will help to bound contamination from other sources, if present.
08SB055	08SB055xxxx	Highest PID reading or 2 feet above bedrock	This is the eastern boring in a row of 4 borings along a perpendicular line drawn from a point about 2/3 of the distance from the northern wall to Building 119 to its southern wall. This location about 170 feet east of Building 119 will help determine whether the area east of Building 119 is a VOC contaminant source for groundwater and will help to bound contamination from other sources, if present.

TABLE 1

**PROPOSED SOIL BORING AND GROUNDWATER SAMPLES AND RATIONALES FOR INVESTIGATION OF  
ADDITIONAL VOLATILE ORGANIC COMPOUND CONTAMINANT SOURCES SOUTH OF BUILDING 106  
SWMU 8 - BUILDING 106 POND  
NSWC CRANE  
CRANE, INDIANA**

PAGE 2 OF 3

Location <sup>(1)</sup>	Sample ID <sup>(2)</sup>	Depth	Rationale
08SB056	08SB056xxxx	Highest PID reading or 2 feet above bedrock	This boring is the eastern most boring in a row of 3 borings along a perpendicular line that is an extension of the southern wall of Building 119, located approximately 70 ft due west of permanent well 08MWT006, will provide data useful for assessing the impact of the former drum storage area on the groundwater quality observed in permanent wells 08MWT005, 08MWT006, and 08MWT014.
08SB057	08SB057xxxx	Highest PID reading or 2 feet above bedrock	This is the western most boring in a row of 3 borings along a perpendicular line that is an extension of the southern wall of Building 119. This location about 10 feet east of the southeast corner of Building 119, will help determine whether Building 119 is a VOC contaminant source for groundwater and will help to bound contamination from other sources, if present. Data from this location may also provide information on the source of the low level of 1,1,1-TCA in wells 08MWT012 and 08MWT009.
08SB058	08SB058xxxx	Highest PID reading or 2 feet above bedrock	This is the eastern boring in a row of 2 borings along a perpendicular line that is an extension of the southern wall of Building 119. This location, about 90 feet east of the southeast corner of Building 119, will help determine whether the area to the east of Building 119 is a VOC contaminant source for groundwater and will help to detect or bound contamination from other sources (e.g., the former drum storage area), if present. This location is upgradient of the former unnamed structure shown in Figure 3 and will be useful for understanding the relationship of that unnamed structure to potential contaminant sources and to groundwater contamination. Data from this location may also provide information on the source of the low level of 1,1,1-TCA in wells 08MWT012 and 08MWT009.
08SB059	08SB059xxxx	Highest PID reading or 2 feet above bedrock	This location is southwest and within 10 feet of the former unnamed structure on Figure 3 located approximately 50 feet north and 20 feet to the east of well 08MWT012. Data from point, will help determine whether the former unnamed structure is a VOC contaminant source and will help to detect or bound contamination from other sources (e.g., the former drum storage area), if present. Data from this location may also provide information on the source of the low level of 1,1,1-TCA in wells 08MWT012 and 08MWT009.
08SB060	08SB060xxxx	Highest PID reading or 2 feet above bedrock	This location is southeast and within 10 feet of the former unnamed structure on Figure 3 located approximately 85 feet southwest of well 08MWT005. This point will help determine whether the former unnamed structure is a VOC contaminant source and will help to bound contamination from other sources, if present. Data from this location may also provide information on the source of the low level of 1,1,1-TCA in wells 08MWT012 and 08MWT009.
08SB061	08SB061xxxx	If PID reading is significant, collect sample if water is available at the bedrock surface.	This middle boring in a row of 4 borings is along a perpendicular line drawn from a point about 2/3 of the distance from the northern wall of Building 119 to its southern wall. This location about 40 feet east of Building 119 will help determine whether the area east of Building 119 is a VOC contamination source for groundwater and help to bound contamination from other sources, if present.
08SB062	08SB062xxxx	If PID reading is significant, collect sample if water is available at the bedrock surface.	The middle boring in a row of 3 borings along an almost perpendicular line that is an extension of the southern wall of Building 119 will help determine whether Building 119 is a VOC contamination source for groundwater and will help to bound contamination from other sources, if present.

TABLE 1

**PROPOSED SOIL BORING AND GROUNDWATER SAMPLES AND RATIONALES FOR INVESTIGATION OF  
ADDITIONAL VOLATILE ORGANIC COMPOUND CONTAMINANT SOURCES SOUTH OF BUILDING 106  
SWMU 8 - BUILDING 106 POND  
NSWC CRANE  
CRANE, INDIANA**

PAGE 3 OF 3

Location <sup>(1)</sup>	Sample ID <sup>(2)</sup>	Depth	Rationale
<b>Perched Groundwater at Overburden-Bedrock Interface (Collected from Temporary Wells Installed in Soil Borings).</b>			
08TW007	08TW007	This location is coincident with soil boring 08SB047. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW008	08TW008	This location is coincident with soil boring 08SB048. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW009	08TW009	This location is coincident with soil boring 08SB053. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW010	08TW010	This location is coincident with soil boring 08SB054. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW011	08TW011	This location is coincident with soil boring 08SB055. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW012	08TW012	This location is coincident with soil boring 08SB056. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW013	08TW013	This location is coincident with soil boring 08SB057. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW014	08TW014	This location is coincident with soil boring 08SB059. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW015	08TW015	This location is coincident with soil boring 08SB060. Collect sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW016	08TW016	This location is coincident with soil boring 08SB061. If the PID reading is significant, collect a sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.
08TW017	08TW017	This location is coincident with soil boring 08SB062. If the PID reading is significant, collect a sample if water is available at the bedrock surface.	If water is available, this location will serve as an integrator of contamination that has migrated through soils to the bedrock overburden interface and potentially migrated downgradient along this interface.

1 All temporary wells are coincident with certain soil borings. See the "Depth" column to determine which wells and borings are coincident.

2 Upon sampling "xxxx" will be replaced by the actual top (two digits) and bottom (two digits) depth intervals (feet below ground surface).

PID = Photoionization detector

TABLE 2

**SAMPLING AND ANALYSES FOR SOIL AND PERCHED  
GROUNDWATER SAMPLES SOUTH OF BUILDING 106  
SWMU 8 - BUILDING 106 POND  
NSWC CRANE  
CRANE, INDIANA**

Location <sup>(1)</sup>	Sample ID <sup>(2,3)</sup>	ANALYSES <sup>(4)</sup>	
		TCL VOCs (SW846 METHOD 8260B)	1,4-DIOXANE (SW846 METHOD 8270C)
<b>Soil Samples and Associated QC Samples</b>			
08SB046	08SB046xxxx	X	NA
08SB047	08SB047xxxx	X	NA
08SB048	08SB048xxxx	X	NA
08SB049	08SB049xxxx	X	NA
08SB050	08SB050xxxx	X	NA
08SB051	08SB051xxxx	X	NA
08SB052	08SB052xxxx	X	NA
08SB053	08SB053xxxx	X	NA
08SB054	08SB054xxxx	X	NA
08SB055	08SB055xxxx	X	NA
08SB056	08SB056xxxx	X	NA
08SB057	08SB057xxxx	X	NA
08SB058	08SB058xxxx	X	NA
08SB059	08SB059xxxx	X	NA
08SB060	08SB060xxxx	X	NA
08SB061	08SB061xxxx	X	NA
08SB062	08SB062xxxx	X	NA
NA	One Soil Field Duplicate	X	NA
NA	One Aqueous rinsate Blank	X	NA
NA	One Aqueous Trip Blank	X	NA
<b>Aqueous Samples and Associated QC Samples</b>			
08TW007	08GWTW007	X	X
08TW008	08GWTW008	X	X
08TW009	08GWTW009	X	X
08TW010	08GWTW010	X	X
08TW011	08GWTW011	X	X
08TW012	08GWTW012	X	X
08TW013	08GWTW013	X	X
08TW014	08GWTW014	X	X
08TW015	08GWTW015	X	X
08TW016	08GWTW016	X	X
08TW017	08GWTW017	X	X
NA	One Aqueous Field Duplicate	X	X
NA	One Aqueous Trip Blank	X	NA
NA	One Aqueous Rinsate Blank	X	X
<b>Total No. of solid samples (includes solid QC samples)</b>		18	0
<b>Total no. of aqueous samples (includes aqueous QC samples)</b>		16	13

1 All temporary wells are coincident with certain soil borings. Consult Table 1 to determine which wells and borings are coincident.

2 Upon sampling "xxxx" will be replaced by the actual top (two digits) and bottom (two digits) depth intervals (feet below ground surface).

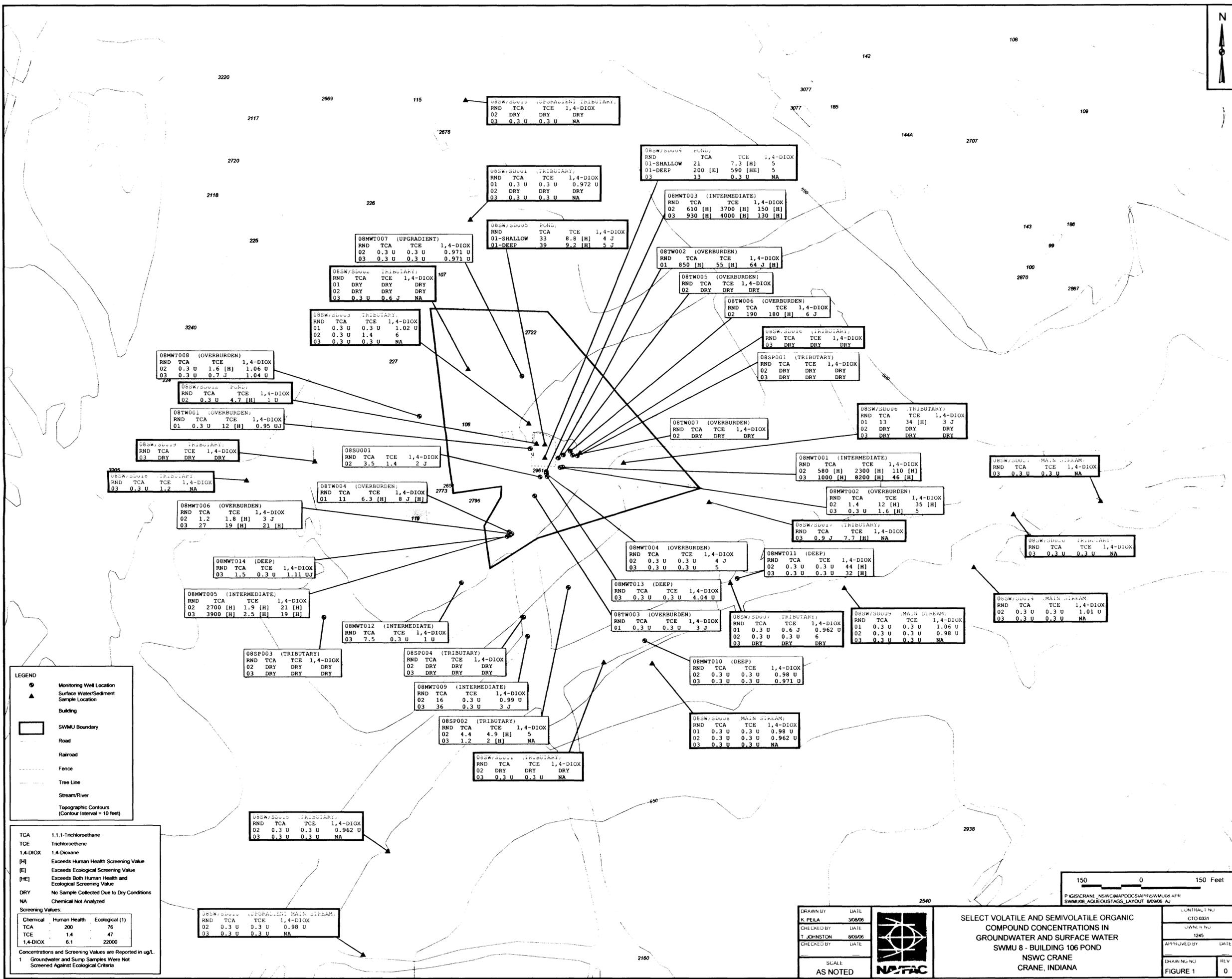
3 Only one soil sample will be collected from each boring (See Table 1 "Depth" column for details).

4 Consult text for description of QC samples to be collected and analyses to perform on QC samples.

NA - Not applicable

TCL - US EPA Target Compound List

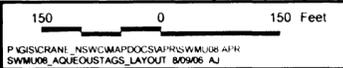
VOCs - Volatile organic compounds



**LEGEND**

- Monitoring Well Location
- ▲ Surface Water/Sediment Sample Location
- ▭ Building
- ▭ SWMU Boundary
- Road
- Railroad
- - - Fence
- - - Tree Line
- Stream/River
- Topographic Contours (Contour Interval = 10 feet)

TCA	1,1,1-Trichloroethane		
TCE	Trichloroethene		
1,4-DIOX	1,4-Dioxane		
[H]	Exceeds Human Health Screening Value		
[E]	Exceeds Ecological Screening Value		
[HE]	Exceeds Both Human Health and Ecological Screening Value		
DRY	No Sample Collected Due to Dry Conditions		
NA	Chemical Not Analyzed		
<b>Screening Values:</b>			
Chemical	Human Health	Ecological (1)	
TCA	200	76	
TCE	1.4	47	
1,4-DIOX	6.1	22000	
Concentrations and Screening Values are Reported in ug/L.			
1 Groundwater and Sump Samples Were Not Screened Against Ecological Criteria			



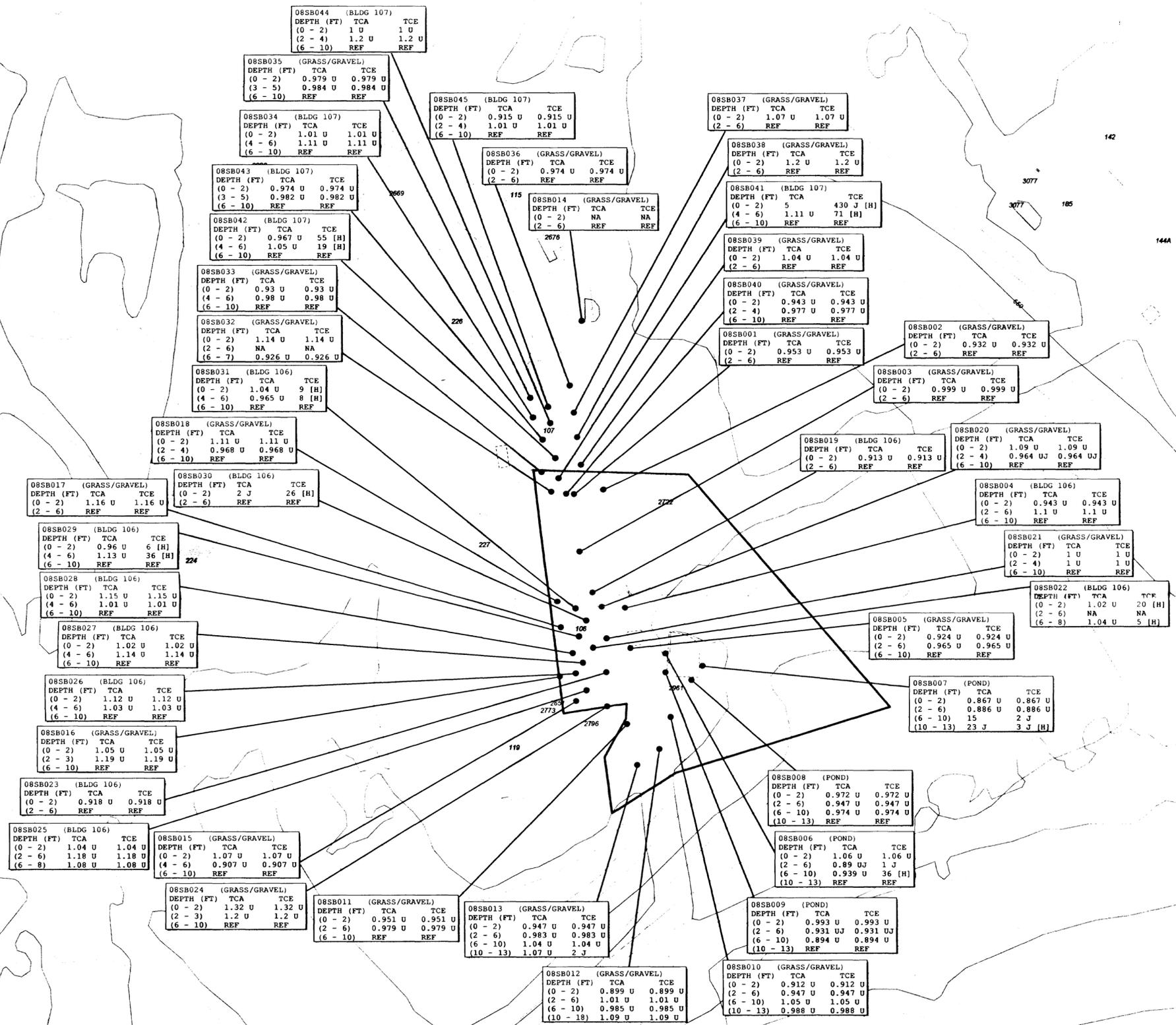
DRAWN BY	DATE	
K. PEILA	3/8/06	
CHECKED BY	DATE	
T. JOHNSTON	8/9/06	
CHECKED BY	DATE	
SCALE	AS NOTED	

SELECT VOLATILE AND SEMIVOLATILE ORGANIC COMPOUND CONCENTRATIONS IN GROUNDWATER AND SURFACE WATER  
 SWMU 8 - BUILDING 106 POND  
 NSWC CRANE  
 CRANE, INDIANA

CONTRACT NO.	CTO 0331
OWNER NO.	1245
APPROVED BY	DATE
DRAWING NO.	REV
FIGURE 1	0



2115  
2080

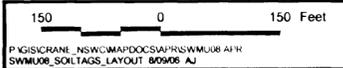


**LEGEND**

- Soil Boring Location
- ▭ Building
- ▭ SWMU Boundary
- Road
- Railroad
- - - Fence
- - - Tree Line
- Stream/River
- Topographic Contours (Contour Interval = 10 feet)

TCA	1,1,1-Trichloroethane	
TCE	Trichloroethene	
[H]	Exceeds Human Health Screening Value	
[E]	Exceeds Ecological Screening Value	
[HE]	Exceeds Both Human Health and Ecological Screening Value	
NA	Chemical Not Analyzed	
REF	Refusal During Sampling Did Not Allow Sample Collection	
<b>Screening Values:</b>		
Chemical	Human Health	Ecological (1)
TCA	97	29800
TCE	2.8	12400

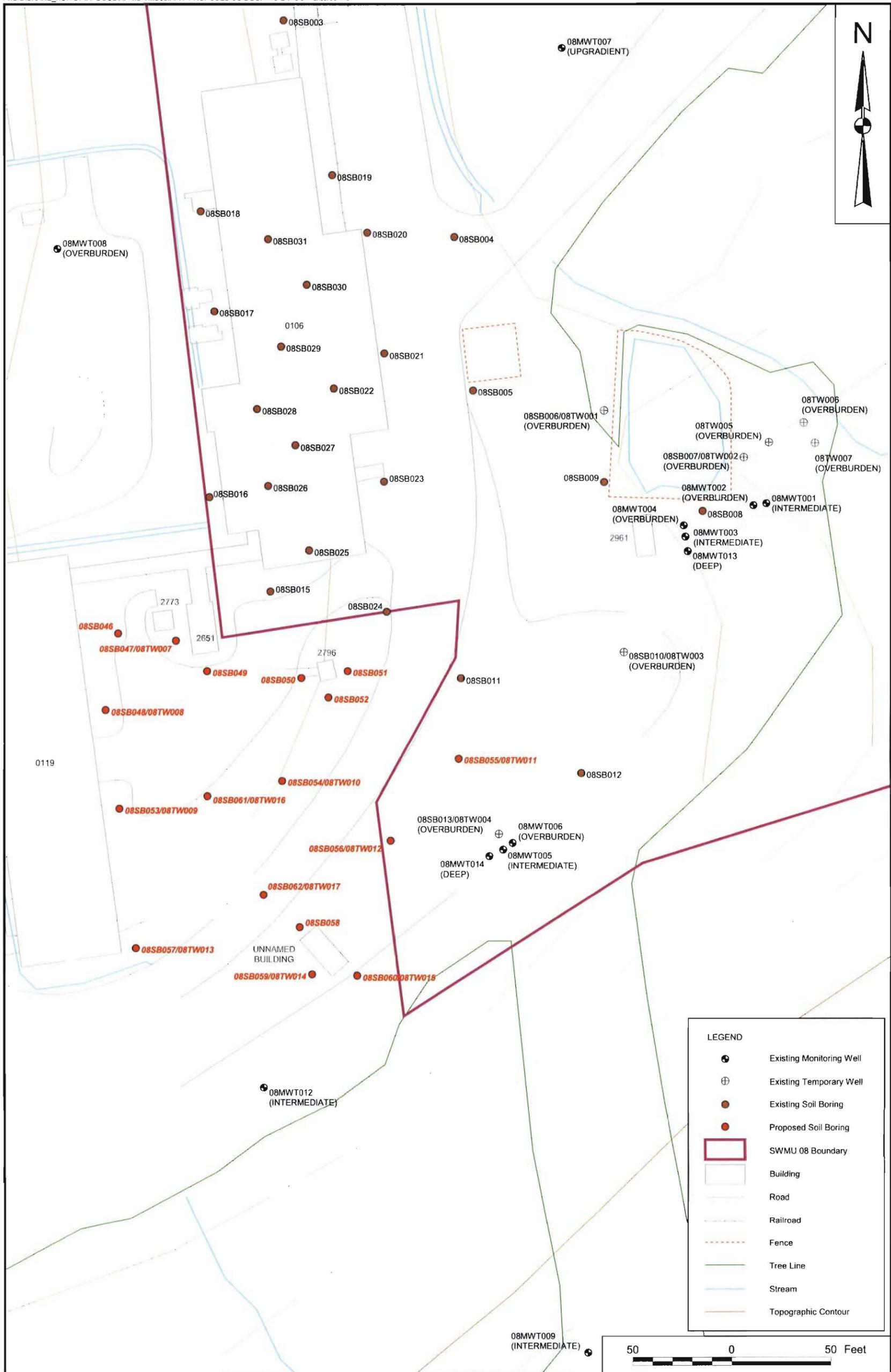
Concentrations and Screening Values are Reported in ug/g  
 1 Subsurface Samples Were Not Screened Against Ecological Criteria



DRAWN BY	DATE
K. PEILA	3/8/06
CHECKED BY	DATE
T. JOHNSTON	8/9/06
CHECKED BY	DATE
SCALE	AS NOTED

**SELECT VOLATILE AND SEMIVOLATILE ORGANIC  
COMPOUND CONCENTRATIONS IN SOIL**  
 SWMU 8 - BUILDING 106 POND  
 NSWC CRANE  
 CRANE, INDIANA

CONTRACT NO.	CTO 0331
DRAWING NO.	1245
APPROVED BY	DATE
DRAWING NO.	REV
FIGURE 2	0



DRAWN BY	DATE
A. JANOCHA	8/08/06
CHECKED BY	DATE
J. LUCAS	8/28/06
COST/SCHEDULE-AREA	
SCALE	
AS NOTED	



PROPOSED SOIL BORING LOCATIONS  
 SWMU 8 - BUILDING 106 POND  
 NSWC CRANE  
 CRANE, INDIANA

CONTRACT NUMBER		CTO 0331
APPROVED BY	DATE	
APPROVED BY	DATE	
DRAWING NO.	FIGURE 3	REV 0