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NSA CRANE
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FIELD TASK MODIFICATION REQUEST FORM REGARDING THE SAMPLING AND
ANALYSIS PLAN AND SAMPLING AND ANALYSIS PLAN ADDENDUM AT (SWMU 21) NSA
CRANE IN
02/07/2012
TETRA TECH INC



Tetra Tech, Inc.
FIELD TASK MODIFICATION REQUEST FORM

Project/Installation Name <u>NSA Crane, SWMU 21– Defense Reutilization Marketing Office (DRMO) Storage Lot</u>	CTO & Project Number <u>CTO F274; 112G02122</u>	Task Modification Number <u>001</u>
Modification to: <u>SWMU 21 Sampling and Analysis Plan (SAP), August 2010; and, SWMU 21 SAP Addendum, March 2011</u>	Site Location <u>NSA Crane</u>	Date of Request <u>February 7, 2012</u>

Background. Tetra Tech performed RCRA Facility Investigation (RFI) sampling in September 2010 and April 2011 at SWMU 21 - Defense Reutilization Marketing Office (DRMO) Storage Lot. This sampling work included collection of surface soil samples that were analyzed for polychlorinated biphenyls (PCBs). Based on review of the analytical data, there are five areas on SWMU 21 where the extent of PCB contamination is not bounded.

Purpose of FTMR. The purpose of this FTMR form is to describe supplemental sampling to more accurately define the extent of PCB surface soil concentrations that exceed the clean up level of 1 milligram per kilogram (mg/kg). This supplemental sampling will be performed as described in this FTMR form and the previously approved SAP documents. This FTMR form includes figures and a table to show the data gaps and the proposed supplemental sampling.

Proposed Supplemental Sampling. To define the extent of contamination, surface soil samples will be collected at 15-foot step-out increments from previously collected soil sample locations where the PCB concentration exceeded 1 mg/kg and are not bounded. Analysis will be performed for PCBs only. A total of 46 surface soil samples and 4 field duplicate samples will be collected for analysis. Figure 5-0 is an index map showing the location of Figures 5-1 to 5-5, with the proposed locations of the supplemental surface soil samples shown on Figures 5-1, 5-2, 5-3, and 5-5. The surface soil PCB contamination shown on Figure 5-4 is bounded and will not need further sampling. The proposed supplemental sampling and analysis is presented on attached Table 1.

A gravel layer of varying depth covers many areas of SWMU 21. The gravel layer provides a working surface to perform site operations. The gravel layer is expected to be 0 to 4 feet deep in the areas proposed for sampling. At SWMU 21, surface soil is defined as the first two feet of soil encountered. In areas where there is no gravel layer, the surface soil is defined as the layer of soil found between 0 and 2 feet below ground surface (bgs). If there is a gravel layer on the surface, the surface soil is defined as the first two feet of soil immediately below the gravel layer. Because of the varying depth of the gravel layer, surface soil samples will be collected from depths ranging from 0 to 2 feet bgs to 4 to 6 feet bgs.

Initial analysis will be performed on the soil sample locations nearest the areas that contain PCBs at concentrations above 1 mg/kg and are not bounded by soil samples that have concentrations of less than 1 mg/kg PCBs. This will more accurately define the limit of soil that contains PCBs at concentrations above 1 mg/kg. Samples collected from locations greater than the initial 15-foot step-out will be extracted and held pending the results of the initial analysis. All samples collected will be extracted within the method extraction holding times and held for analysis pending the analysis results from the initial samples.

- **Northern North End.** Unbounded PCB contamination is in the area of soil borings 21SB27 and 21SB88 as shown on Figure 5-1. Eight surface soil samples will be collected in the areas immediately surrounding 21SB27 and 21SB88. Five surface soil samples, 21SB115, 21SB116, 21SB118, 21SB119, and 21SB120, will be extracted and immediately analyzed for PCBs. Three surface soil samples, 21SB114, 21SB117, and 21SB121 will be extracted and held for PCB analysis pending the results of the initial samples.
- **Southern North End.** Unbounded PCB contamination is shown in the area of soil borings 21SB46, 21SB93, and 21SB94 as shown on Figure 5-2. Thirteen surface soil samples will be collected in the areas immediately surrounding 21SB46, 21SB93, and 21SB94. Eight surface soil samples, 21SB123, 21SB125, 21SB126, 21SB128, 21SB129, 21SB131, 21SB132, and 21SB158 will be extracted and immediately analyzed for PCBs. Five surface soil samples, 21SB122, 21SB124, 21SB127, 21SB130, and 21SB159 will be extracted and held for PCB analysis pending the results of the initial samples.
- **North of Oil/Water Separator (OWS).** Unbounded PCB contamination is shown in the area of soil boring 21SB36, 21SB89, and 21SB90 as shown on Figure 5-3. Eight surface soil samples will be collected in the areas immediately surrounding 21SB36, 21SB89, and 21SB90. Six surface soil samples, 21SB135, 21SB136, 21SB137, 21SB138, 21SB139, and 21SB140, will be extracted and immediately analyzed for PCBs. Two surface soil samples, 21SB133 and 21SB134, will be extracted and held for PCB analysis pending the results of the initial samples.
- **South of Oil/Water Separator (OWS).** Unbounded PCB contamination is shown in the area of soil boring 21SB108 and 21SB109 as shown on Figure 5-3. Eleven surface soil samples are recommended to be collected in the area immediately surrounding 21SB108 and 21SB109. Eight surface soil samples, 21SB141, 21SB143, 21SB144, 21SB145, 21SB146, 21SB148, 21SB149, and 21SB150, will be extracted and immediately analyzed for PCBs. Three surface soil samples, 21SB142, 21SB147, and 21SB151, will be extracted and held for PCB analysis pending the results of the initial samples.
- **Metals Baler.** Unbounded PCB contamination is shown in the area of soil boring 21SB52 and 21SB106 as shown on Figure 5-5. Six surface soil samples are recommended to be collected in the area immediately surrounding 21SB52 and 21SB106. Four surface soil samples, 21SB152, 21SB155, 21SB156, and 21SB157, will be extracted and immediately analyzed for PCBs. Two surface soil samples, 21SB153 and 21SB154, will be extracted and held for PCB analysis pending the results of the initial samples.

Attachments to this FTMR include:

Figures

- Figure 5-0 Sampling Index Map
- Figure 5-1 Proposed PCB Sampling – Northern North End
- Figure 5-2 Proposed PCB Sampling – Southern North End
- Figure 5-3 Proposed PCB Sampling – Oil Water Separator Area
- Figure 5-4 Surface Soil PCB Concentrations
- Figure 5-5 Proposed PCB Sampling – Former Metals Baler Area

Table

- Table 1 Proposed Supplemental Sampling at SWMU 21

Reason for Change/Modification: Supplemental Sampling to address data gaps

Person Requesting Change/Modification:

George L. Ten Eyck, FOL / Date

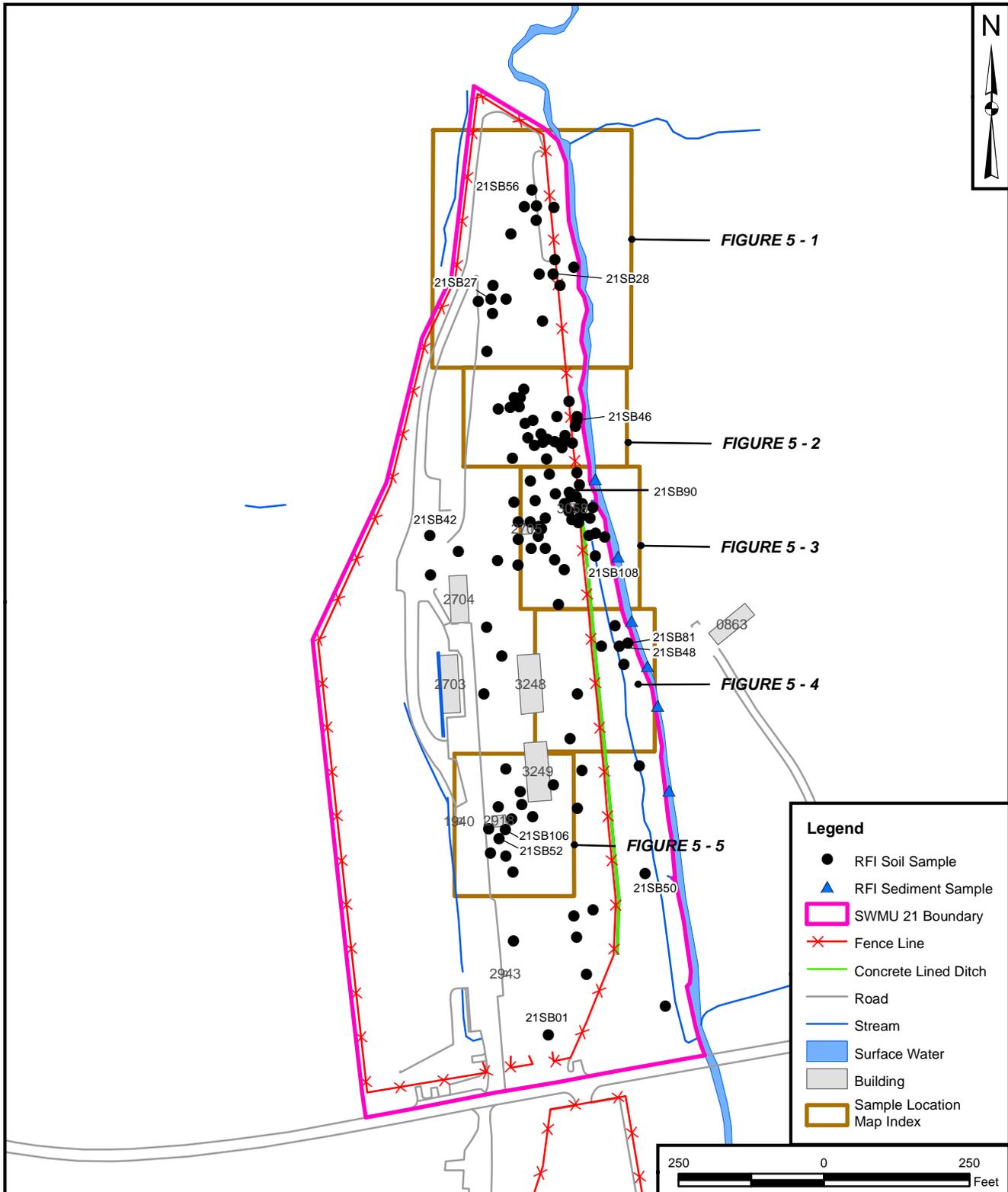
Approvals:

Anthony Klimek, Tetra Tech Project Manager / Date

Modifications to the HASP required based on this change? Yes No NA

Health Safety Manager (Signature)

Date



Legend

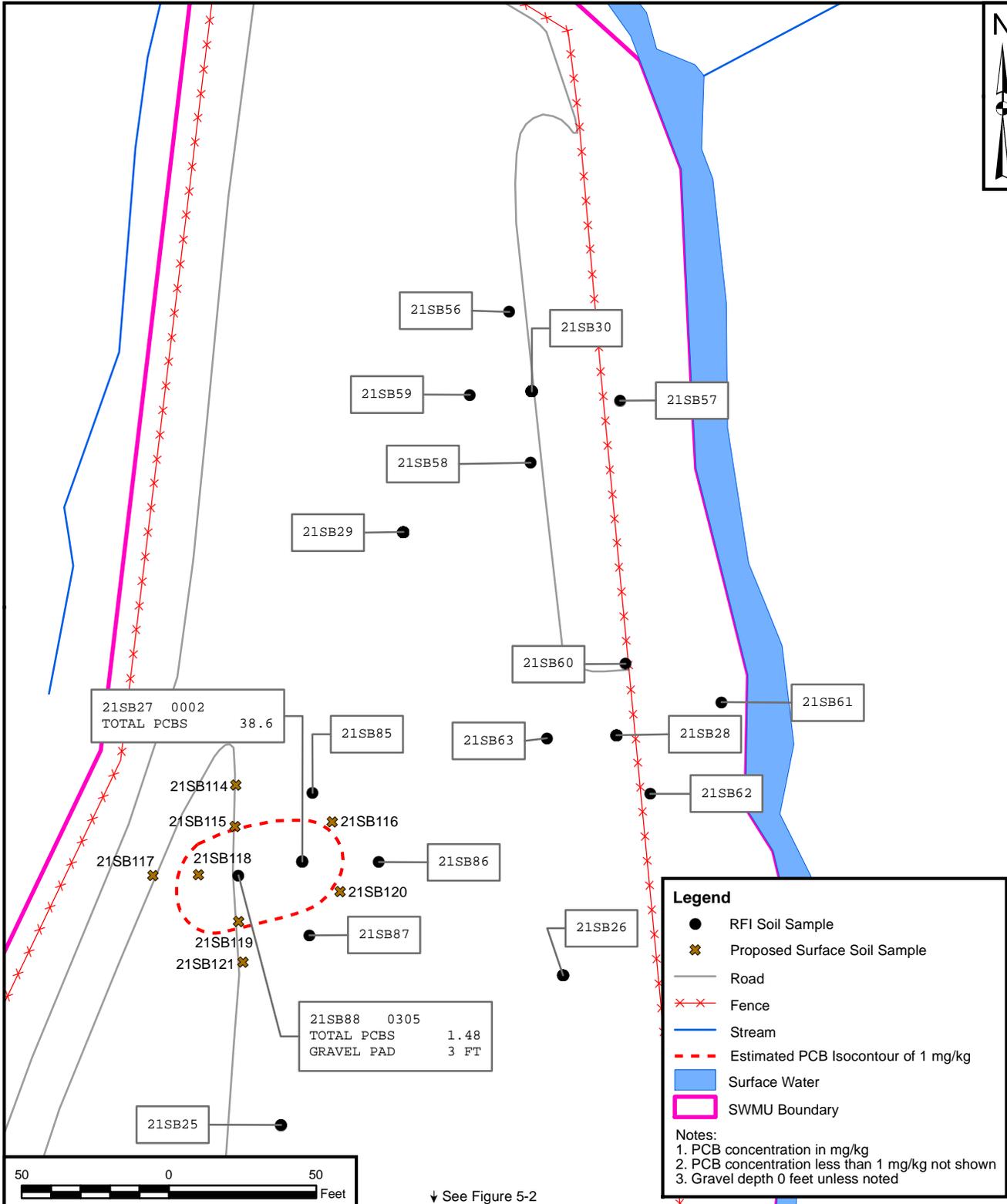
- RFI Soil Sample
- ▲ RFI Sediment Sample
- SWMU 21 Boundary
- × Fence Line
- Concrete Lined Ditch
- Road
- Stream
- Surface Water
- Building
- Sample Location Map Index

DRAWN BY	DATE
S. PAXTON	01/12/12
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G. TEN EYCK	01/25/12
REVISED BY	DATE
SCALE AS NOTED	



SAMPLING INDEX MAP
SWMU 21 - DRMO STORAGE LOT
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
FIGURE 5 - 0	0



Legend

- RFI Soil Sample
- ✕ Proposed Surface Soil Sample
- Road
- ✕✕ Fence
- Stream
- Estimated PCB Isocontour of 1 mg/kg
- Surface Water
- SWMU Boundary

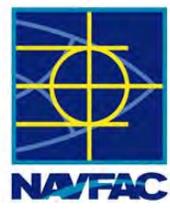
Notes:

1. PCB concentration in mg/kg
2. PCB concentration less than 1 mg/kg not shown
3. Gravel depth 0 feet unless noted



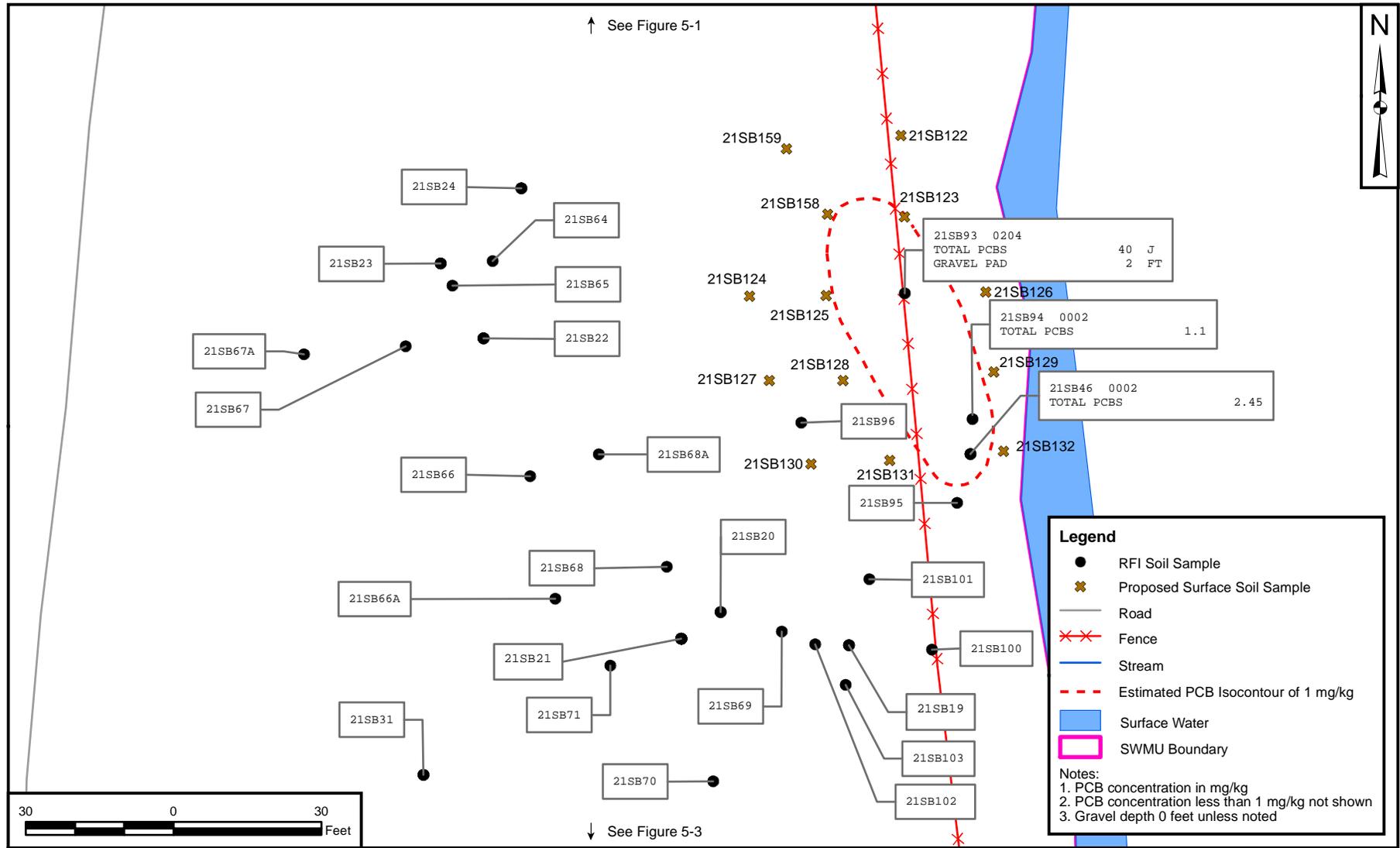
↓ See Figure 5-2

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S. STROZ	07/28/11
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G. TEN EYCK	01/25/12
REVISED BY	DATE
J. ENGLISH	01/25/12
SCALE AS NOTED	



PROPOSED PCB SAMPLING
NORTHERN NORTH END
SWMU 21 - DRMO STORAGE LOT
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
FIGURE 5 - 1	0

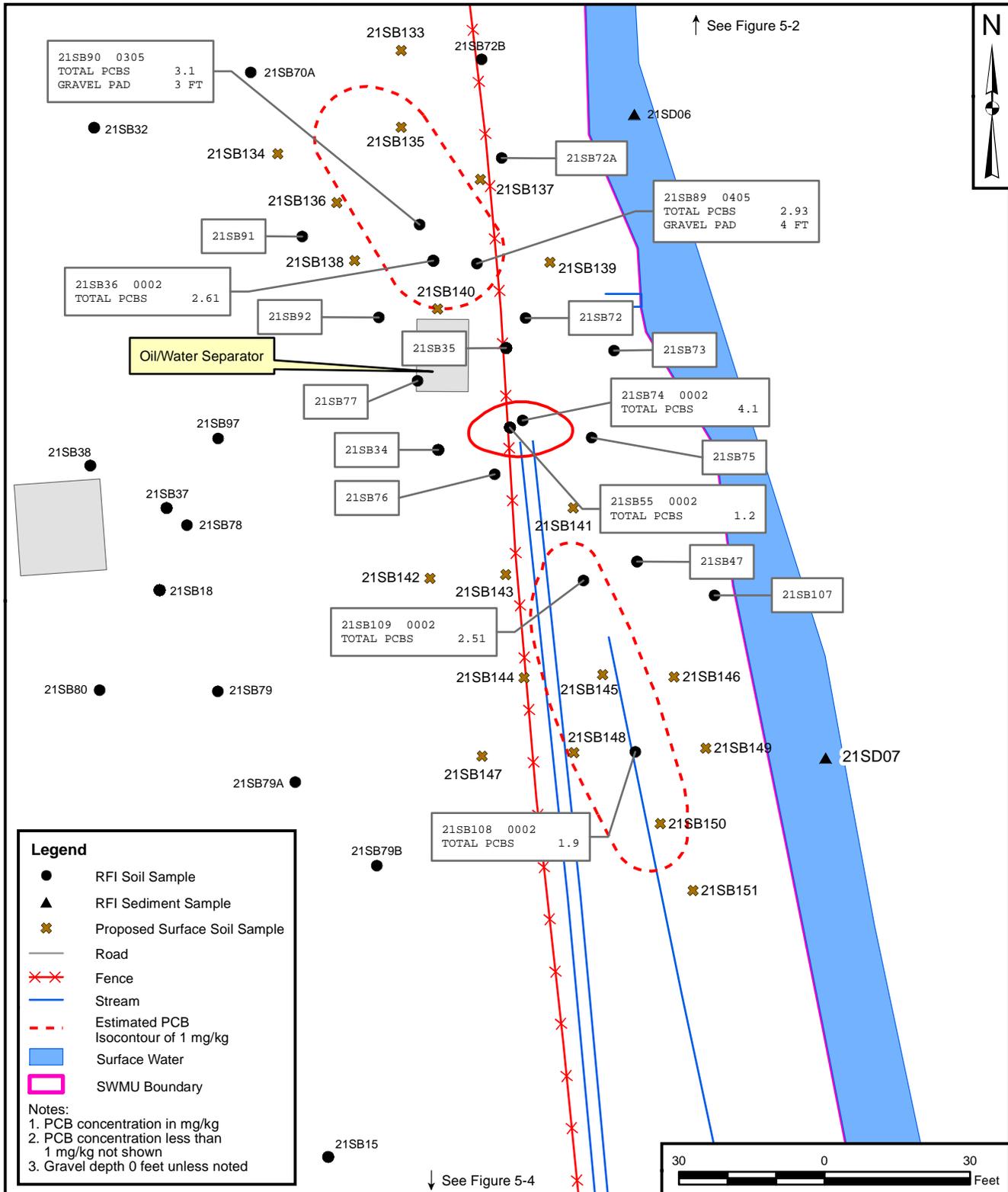


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G. TEN EYCK	02/08/12
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J. NOVAK	02/08/12
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PROPOSED PCB SAMPLING
SOUTHERN NORTH END
SWMU 21 - DRMO STORAGE LOT
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
FIGURE 5 - 2	0

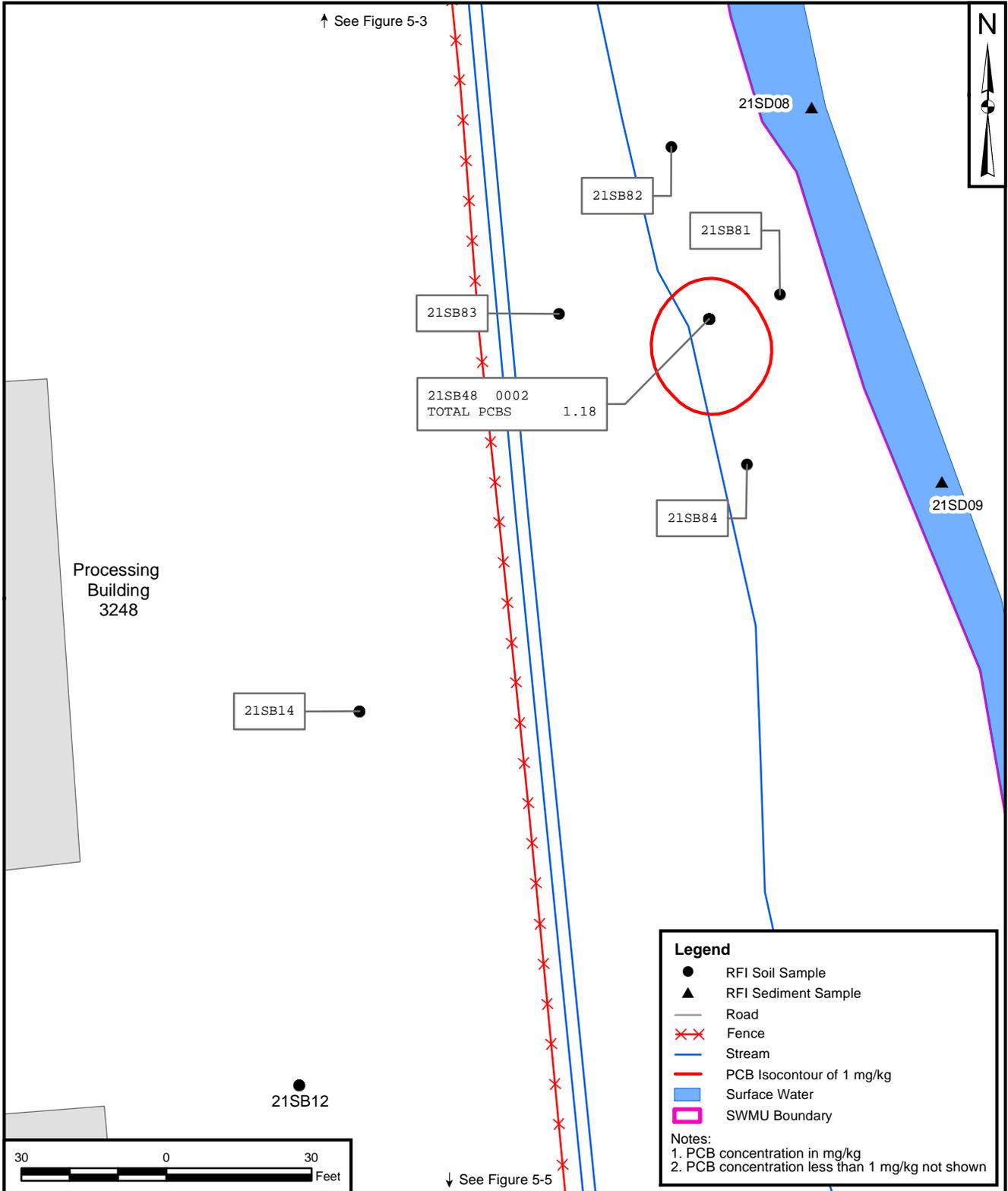


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J. NOVAK	02/07/12
SCALE	
AS NOTED	



PROPOSED PCB SAMPLING
OIL WATER SEPARATOR AREA
SWMU 21 - DRMO STORAGE LOT
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
FIGURE 5 - 3	0

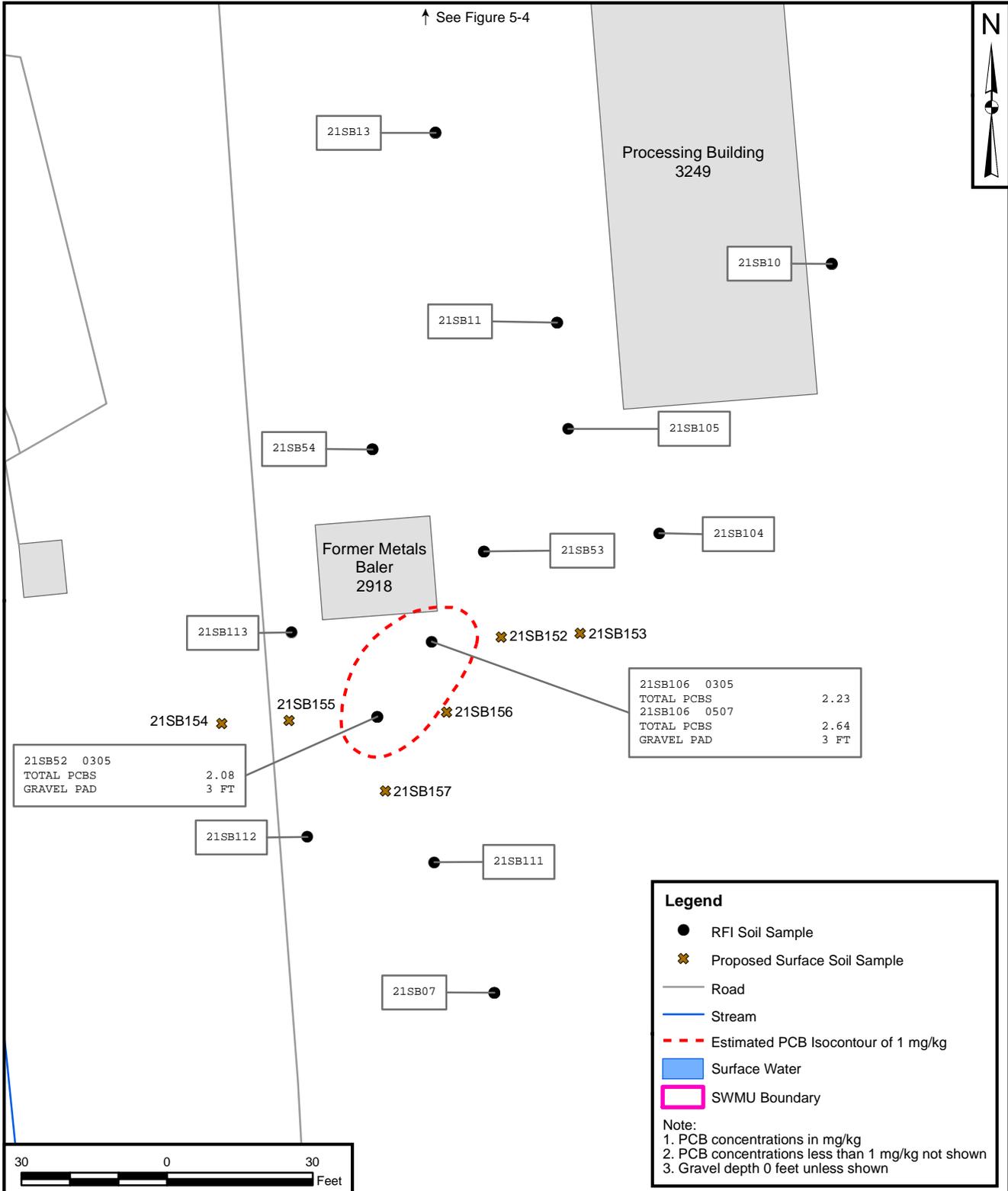


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S. PAXTON	01/17/12
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G. TEN EYCK	01/25/12
REVISED BY	DATE
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SURFACE SOIL PCB CONCENTRATIONS
OPEN GRASS AREA
SWMU 21 - DRMO STORAGE LOT
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
FIGURE 5 - 4	0



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J. ENGLISH	01/25/12
SCALE AS NOTED	



PROPOSED PCB SAMPLING
METALS BALER AREA
SWMU 21 - DRMO STORAGE LOT
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
FIGURE 5 - 5	0

Table 1 Proposed Supplemental sampling at SWMU 21

Sampling Location	ID Number	Matrix	Depth (feet bgs)	Analysis	Number of Samples	Sampling SOP Reference
Northern North End						
SWMU21 SB114	21SB1140002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB115	21SB1150002 and 21SB –FDXXXXX ⁽²⁾	Soil	0 to 2	PCBs	1+ 1 FD ⁽²⁾	SOP-07, SOP-08, SOP-11
SWMU 21 SB116	21SB1160002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB117	21SB1170002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB118	21SB1180002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB119	21SB1190002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB120	21SB1200002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB121	21SB1210002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
Southern North End						
SWMU 21 SB122	21SB1220002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB123	21SB1230002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB124	21SB1240002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB125	21SB1250002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB126	21SB1260002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB127	21SB1270002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11

Table 1 Proposed Supplemental sampling at SWMU 21

Sampling Location	ID Number	Matrix	Depth (feet bgs)	Analysis	Number of Samples	Sampling SOP Reference
SWMU 21 SB128	21SB1280002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB129	21SB1290002		0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB130	21SB1300002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB131	21SB1310002 and 21SB-FDXXXXXX ⁽²⁾	Soil	0 to 2	PCBs	1 + 1FD ⁽²⁾	SOP-07, SOP-08, SOP-11
SWMU 21 SB132	21SB1320002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB158	21SB1580002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB159	21SB1590002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
North of Oil/Water Separator (OWS)						
SWMU 21 SB133	21SB1330002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB134	21SB1340002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB135	21SB1350002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB136	21SB1360002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB137	21SB1370002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB138	21SB1380002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU21 SB139	21SB1390002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08,

Table 1 Proposed Supplemental sampling at SWMU 21

Sampling Location	ID Number	Matrix	Depth (feet bgs)	Analysis	Number of Samples	Sampling SOP Reference
						SOP-11
SWMU 21 SB140	21SB1400002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
South of Oil/Water Separator (OWS)						
SWMU 21 SB141	21SB1410002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB142	21SB1420002 ⁽¹⁾ and 21SB-FDXXXXX ^(1,2)	Soil	0 to 2	PCBs	1 + 1FD ^(1,2)	SOP-07, SOP-08, SOP-11
SWMU 21 SB143	21SB1440002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB144	21SB1440002 and 21SB-FDXXXXXX ⁽²⁾	Soil	0 to 2	PCBs	1 + 1FD ⁽²⁾	SOP-07, SOP-08, SOP-11
SWMU 21 SB145	21SB1450002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB146	21SB1460002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB147	21SB1470002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB148	21SB1480002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB149	21SB1490002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB150	21SB1500002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21	21SB1510002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08,

Table 1 Proposed Supplemental sampling at SWMU 21

Sampling Location	ID Number	Matrix	Depth (feet bgs)	Analysis	Number of Samples	Sampling SOP Reference
SB151						SOP-11
Metals Baler						
SWMU 21 SB152	21SB1520002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB153	21SB1530002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB154	21SB1540002 ⁽¹⁾	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB155	21SB1550002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB156	21SB1560002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11
SWMU 21 SB157	21SB1570002	Soil	0 to 2	PCBs	1	SOP-07, SOP-08, SOP-11

Notes:

1. Sample to be extracted and held for analysis pending results of other samples.
2. Field duplicate (FD) locations may change in the field based on visual observations and field conditions. "XXXXXX" represents date collected.