

00489

**MEMORANDUM**

N60921.AR.000408  
NSWC WHITE OAK  
5090.3a

**TO:** Walter Legg, EFACHES  
Mark Callaghan, MDE  
Jeff Thornburg, MDE  
Bruce Beach, EPA  
Scott MacEwen, CH2MHill  
Phil Tully, IT  
Bob Ridgway, Identix/GSA  
Steven Richard, GSA

**FROM:** Scott Nesbit

**DATE:** April 17, 2002

**SUBJECT:** Area of Concern (AOC) 2 – Phase II Site Screening

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The following memorandum outlines the plan for additional investigation of groundwater and soil at Installation Restoration Program (IRP) sites and solid waste management units (SWMUs) within AOC 2 at the former Naval Surface Warfare Center (NSWC) White Oak.

Site screening is ongoing at 29 sites at NSWC White Oak collectively referred to AOC 2 (Figure 1-2). Screening was initiated in 1999 with the collection of field data (soil, sediment, surface water, and groundwater data). The BRAC Clean-Up Team (BCT) has performed data analysis and evaluation of human health and ecological risks since 1999, eliminating 23 sites as concerns. During BCT discussions in December 2001 (BCT meeting of December 12 and 13) and January 2002 (site visit of January 8), the specific data collection needs for the evaluation of the remaining sites were identified. Excerpts from the December BCT meeting are attached to this memo.

**PROPOSED INVESTIGATION**

The scope of the additional investigations for each SWMU is provided below:

**SWMU 29 – Building 308 Washdown Area**

Two surface soil samples will be collected downgradient of Building 308 and analyzed for Target Analyte List (TAL) inorganics (Figure 1). Elevated lead concentrations were detected in surface soil near Building 308 during the first screening phase.

**SWMU 40 – Building 305 Wastewater Collection System**

Four groundwater samples will be collected from temporary wells in an area where elevated levels of explosives have been detected and will be analyzed for SW 846 8330 explosives (Figure 2). The temporary wells will be screened to a depth 5 feet below the top of the groundwater surface. The groundwater samples will also be analyzed for Target Compound List (TCL) volatile organics (VOCs) because this area is located within Operable Unit 1.

**SWMU 41 – Building 311 Oxidation Ditch**

To address potential surface and subsurface soil contamination at the SWMU, two surface and two subsurface soil samples will be collected (Figure 3). The subsurface soil samples will be collected at a depth between 2 and 4 feet. The samples will be analyzed for explosives via method SW 846 8330. To address potential exceedances of lead in surface water, a surface water sample will be collected adjacent to the SWMU. The sample will be analyzed for total lead.

**SWMU 47 – Former Wastewater Treatment Plant Site**

Eleven surface soil samples are proposed to further delineate polychlorinated biphenyl (PCB) contamination at this SWMU (Figure 4). The samples will be analyzed for PCBs via method SW 846 8082.

**SWMU 52 - Building 201 Waste Oil Overflow Storage Tank**

Three surface soil samples will be collected adjacent to the former location of the storage tank (Figure 5). The samples will be analyzed for TCL semivolatile organics and TAL inorganics.

**SWMU 87 – Building 611 Solid Waste Storage Unit**

Four groundwater samples will be collected from temporary wells at the locations identified on Figure 6. The samples will be analyzed for TCL VOCs to further define the limits of VOC contamination at the SWMU.

Samples will be handled in accordance with the Master Field Sampling Plan (FSP) for White Oak (B&R Environmental, 1998). All pertinent field data, including temperature, pH, conductivity, etc., will be recorded on a Sample Log Sheet and in the field logbook. Proper completion of sample log sheets is discussed in Section 2.0 of the Master FSP (B&R Environmental, 1998a). A sketch illustrating the approximate location will be included on the log sheet. The Master Quality Assurance Project Plan (QAPP) (B&R Environmental, 1998) discusses details concerning sample containers, volume requirements, preservatives, allowable holding times, and analysis requested. Field quality control (QC) samples will be collected or generated during the sampling activities to assess the quality of the data resulting from field sampling and analytical programs. Matrix spikes/matrix spike duplicates and duplicates will be collected during this sampling event. All samples will be submitted to a fixed-base laboratory for 28-day turn-around analysis.

*Excerpt of December 12 and 13, 2001 BCT Meeting*

**6.0 AOC 2 (Scott N.)**

Scott N. told the team that risk ratio tables have been developed for the AOC sites. These tables will be included in the site screening report with EPA's comments and with the eco risk information. At Bruce's request, the team went through the report, site by site, to identify those sites that need more information.

*SWMU 20 - Building 30 Leaching Well*

Issue - Arsenic was found in unfiltered groundwater but not in filtered.

Decision - Excavate the leaching well as a housekeeping measure. Collect verification samples. Take NFA to address risk because there is no risk to any medium.

*SWMU 29 - Building 30 Washdown Area*

Issue - The area immediately downgradient of the SWMU appears to have been excluded from sampling (AI 614).

Decision - Collect two surface soil samples east of 29SS01. Analyze for TAL organics. Visit site to identify sample locations.

*SWMU 34 - Building 377*

Issue - Explosives were found in groundwater, but they are from SWMU 40.

Decision - No further action.

*SWMU 35 - Stoneyard*

Issue - Manganese was found in filtered groundwater at 797 ug/l (HI of 1.1), and chloroform was found in 35WP02 at 16 ug/l (CR of  $1.1 \times 10^{-4}$ ) (AI 614).

Decision - Do not collect groundwater samples. Modify text of report to show groundwater risk is within the acceptable range. Bruce will talk to Linda Watson about this. In regard to PAHs in soil, eco risk concerns will be addressed in report.

*SWMU 36 - Incinerator*

Issue - In soil, dioxin is right at the acceptable risk range of  $1 \times 10^{-4}$ . The dioxin concentration is less than 1 ppb.

Decision - Bruce will talk to Linda.

*SWMU 40 - Building 305 Wastewater Collection System*

Issue - Explosives in groundwater.

Decision - Three temporary well points will be placed closer to the building. Site visit will be conducted.

*SWMU 41 - Building 311 Oxidation Ditch*

Issue - There are no data for soils near or below the oxidation ditch.

Decision - Conduct site visit. Determine why soils in and around the ditch were not sampled in the AOC 2 investigation. Preliminary approach is to collect surface and subsurface soils in the vicinity of the ditch for explosives.

*SWMU 47 - Former Wastewater Treatment Plant Site*

Issue - Manganese was found in groundwater. Can we risk manage iron in soil? PCB concentration exceeds 1 but is not considered to be a risk issue.

Decision - Conduct site visit to determine scope of work.

*SWMU 50 - Building 112 Oil/Water Separator*

Issue - Iron was detected in one sample.

Decision - No further action.

SWMU51 - Building 113 Oil/Water Separator

Decision - No further action.

SWMU 52 - Building 201 Oil/Water Separator

Issue - Surface soil data are lacking.

Decision - Conduct site visit.

SWMU 56 - Building 327 Wastewater Underground Storage Tank

Decision - No further action.

SWMU 87 - Building 611 Solid Waste Storage Unit

Issue - Soil is ok. PCE and TCE in groundwater must be confirmed and delineated.

Decision - Conduct site visit. Need some well points on wells.

AOC M - Former Outfall 004 at Building 611

Decision - No further action.

AOC N - Outfall 006 at Building 201

Decision - Check eco for dieldrin in BERA. Re-evaluate surface water. Expected to move to NFA.

AOC P - Outfall at Building 312

Issue - Samples were not collected close enough to outfall.

Decision - Site visit is needed. Another soil sample is potentially needed.

AOC Q - Outfall 014 at Building 328

Decision - No further action.

AOC R - Outfall at 017F at Building 318

Decision - No further action.

AOC S - Outfall 018 at Building 310A

Decision - Reference report to show that downgradient samples were collected at SWMU 8. Review mercury in sediment in the BERA.

EBS AOC 150 and 151

Decision - Fill in data gaps from BERA. No further action.

EBS AOC 303, EBS AOC 303-4, EBS AOC 334

Decision - No further action.

EBS AOC 500B - Former Pistol Range

Issue - Lead in soil may be a hot spot, although risk model shows it is not.

Decision - No further action. Add statement describing the risk model.

Building 615

Decision - No further action.

Building 355

Issue - Widespread manganese in soils is a concern.

Decision - Explain in text. No further action.

SWMU 57 - Degreasing Tank

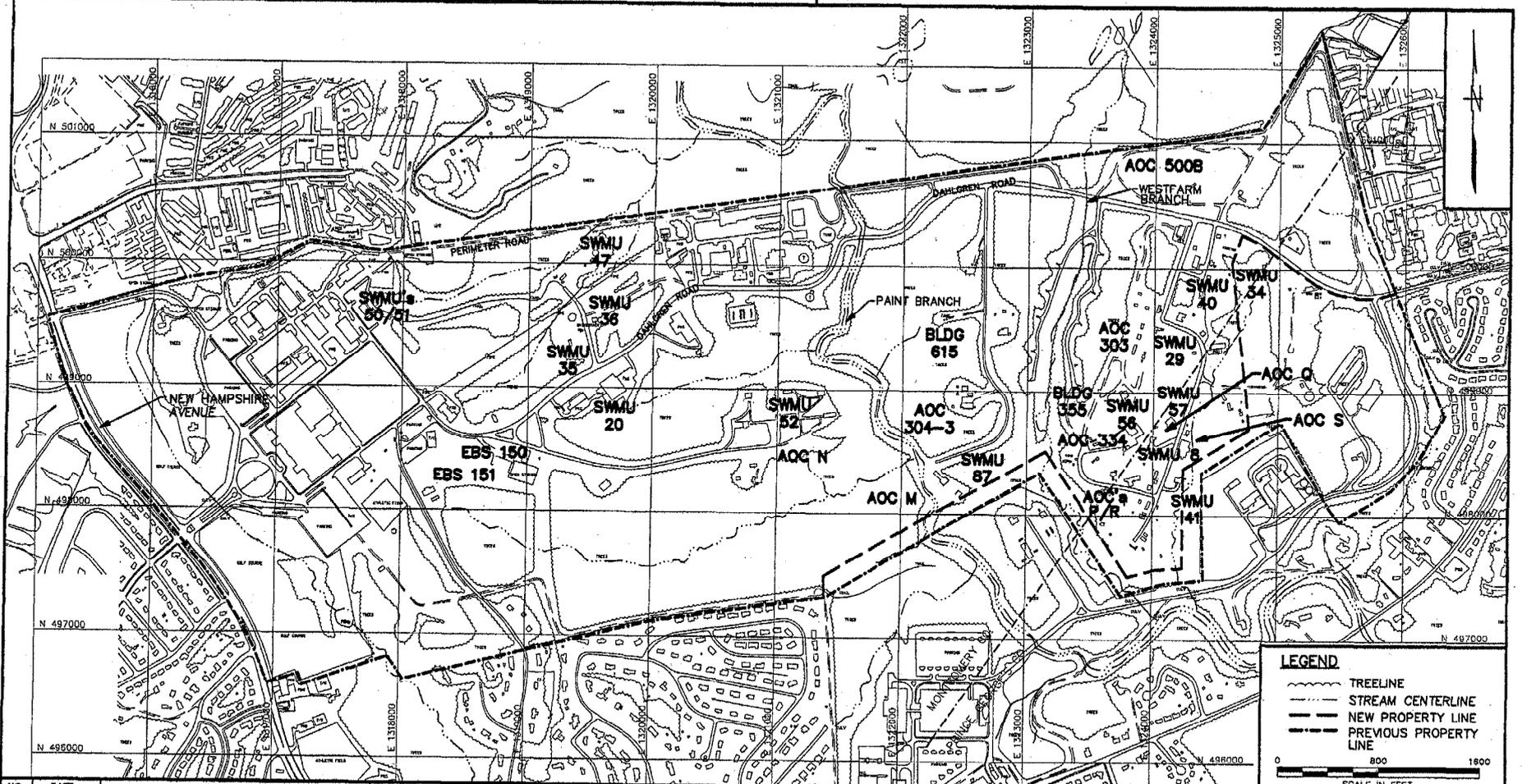
Decision - Check BERA for habitat issues. No further action.

SWMU 8 - Building 310A Waste Disposal Area

Issue - PCBs and mercury were found in soil.

Decision - No further action.

NFA (17)	Further Sampling or Information* (12)	Site Visit
SWMU 8 (added to minutes) SWMU 34 SWMU 50 SWMU 51 SWMU 56 SWMU 57 AOC M AOC Q AOC R AOC 150 AOC 151 EBS AOC 303 EBS AOC 304-3 EBS AOC 334 EBS AOC 500B Building 615 Building 355	SWMU 20 SWMU 29 SWMU 35* SWMU 36* SWMU 40 SWMU 41 SWMU 47 SWMU 52 SWMU 87 AOC N* AOC P AOC S	SWMU 29 SWMU 40 SWMU 41 SWMU 47 SWMU 52 SWMU 87 AOC P

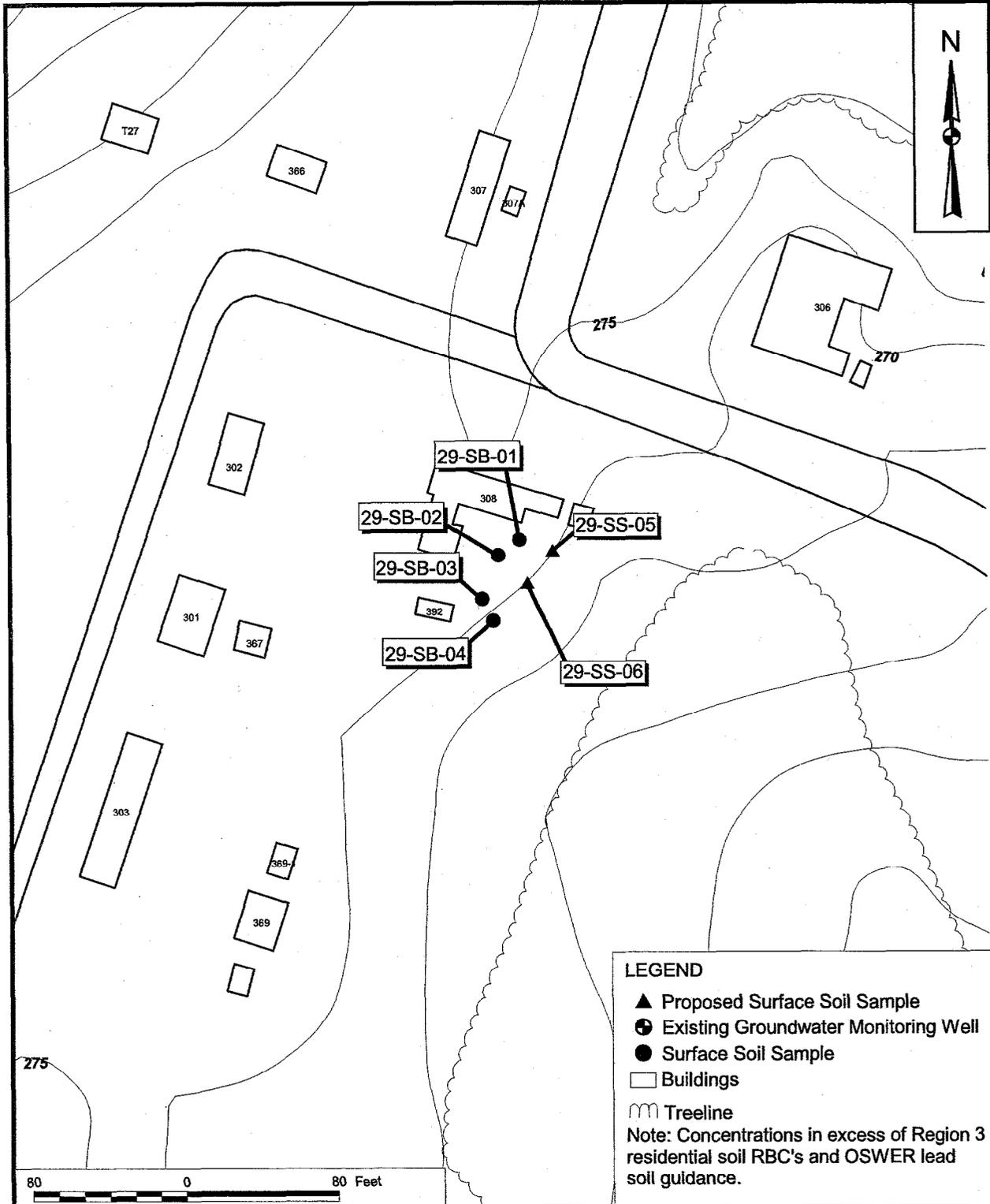


NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY DT  
 DATE 6/23/99  
 CHECKED BY  
 DATE  
 AOC 2 SITE SCREENING  
 SCALE AS NOTED

**Tetra Tech NUS, Inc.**  
 SITE LOCATION MAP  
 AOC 2 SITE SCREENING  
 NSWC-WHITE OAK, SILVER SPRING, MARYLAND

CONTRACT NO. 7427	OWNER NO. 0273
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 1-2	REV. 0

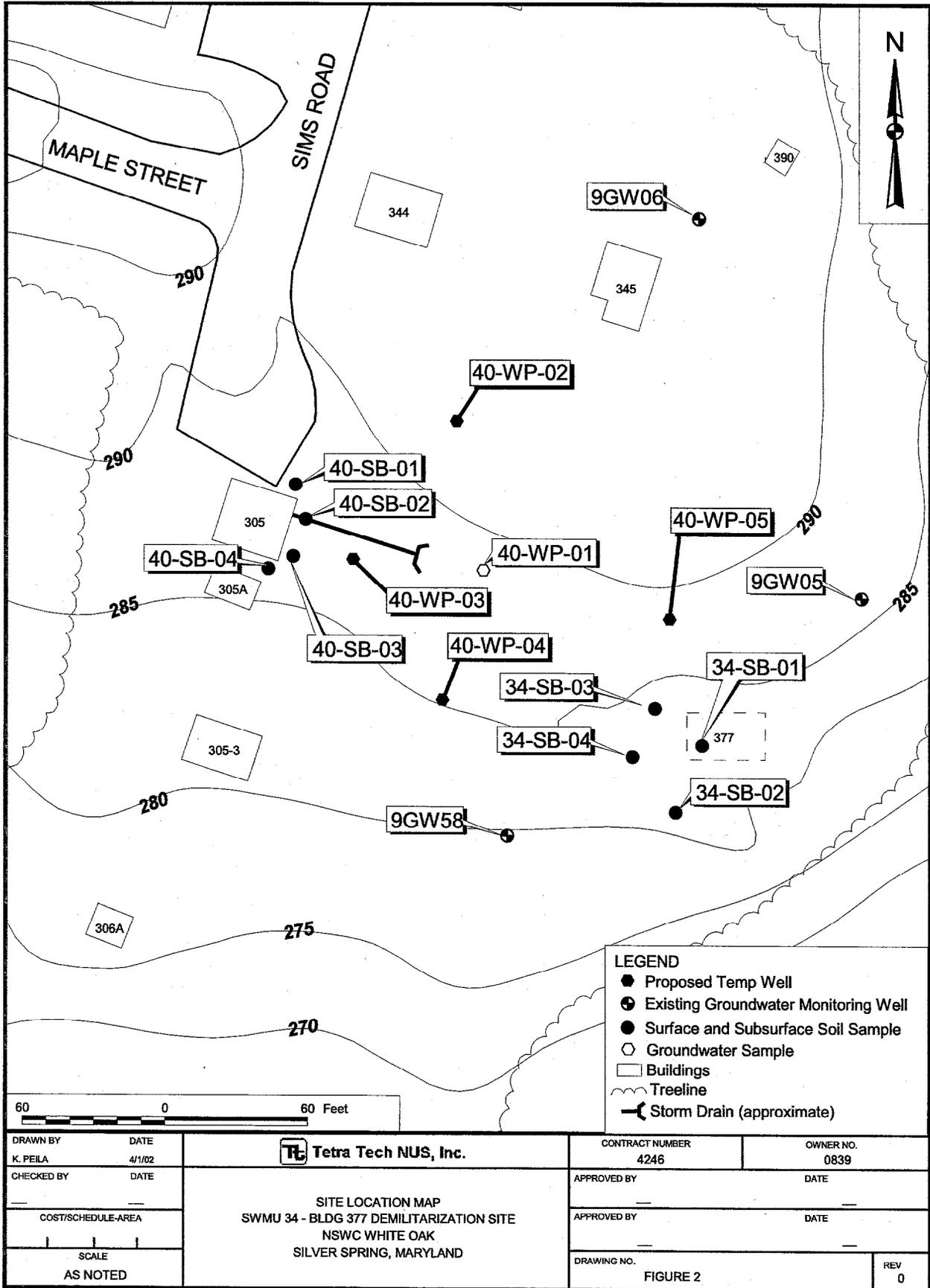


**LEGEND**

- ▲ Proposed Surface Soil Sample
- ⊕ Existing Groundwater Monitoring Well
- Surface Soil Sample
- Buildings
- ⌒ Treeline

Note: Concentrations in excess of Region 3 residential soil RBC's and OSWER lead soil guidance.

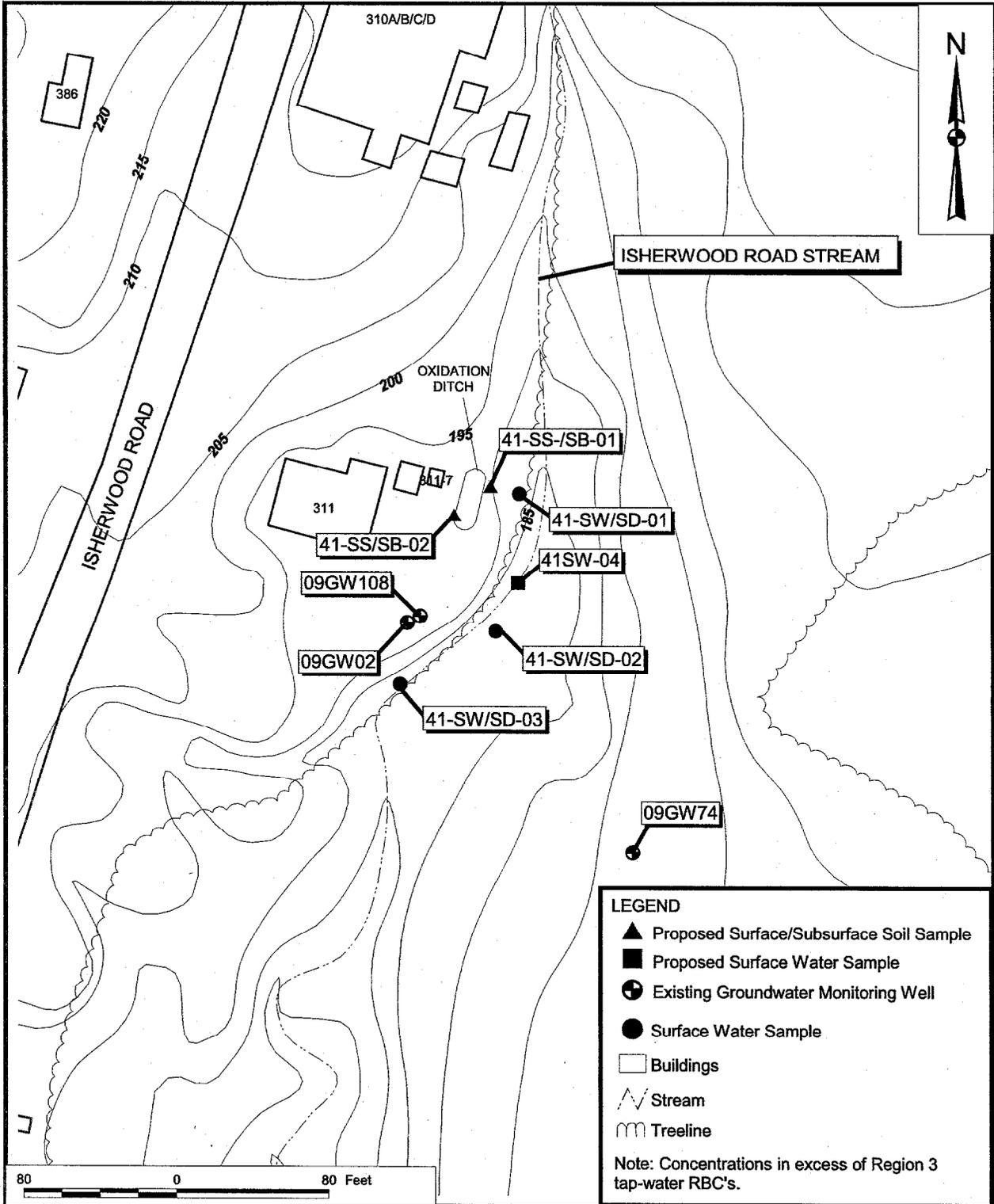
DRAWN BY K. PEILA CHECKED BY COST/SCHEDULE-AREA SCALE AS NOTED	DATE 4/1/02 DATE DATE DATE DATE	Tetra Tech NUS, Inc.  SITE LOCATION MAP SWMU 29 - BUILDING 308 WASHDOWN SYSTEM FORMER NSWC WHITE OAK SILVER SPRING, MARYLAND	CONTRACT NUMBER 4246 APPROVED BY APPROVED BY DRAWING NO. FIGURE 1	OWNER NO. 0839 DATE DATE REV 0
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DRAWN BY K. PEILA	DATE 4/1/02
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	

 **Tetra Tech NUS, Inc.**  
 SITE LOCATION MAP  
 SWMU 34 - BLDG 377 DEMILITARIZATION SITE  
 NSW WHITE OAK  
 SILVER SPRING, MARYLAND

CONTRACT NUMBER 4246	OWNER NO. 0839
APPROVED BY	DATE
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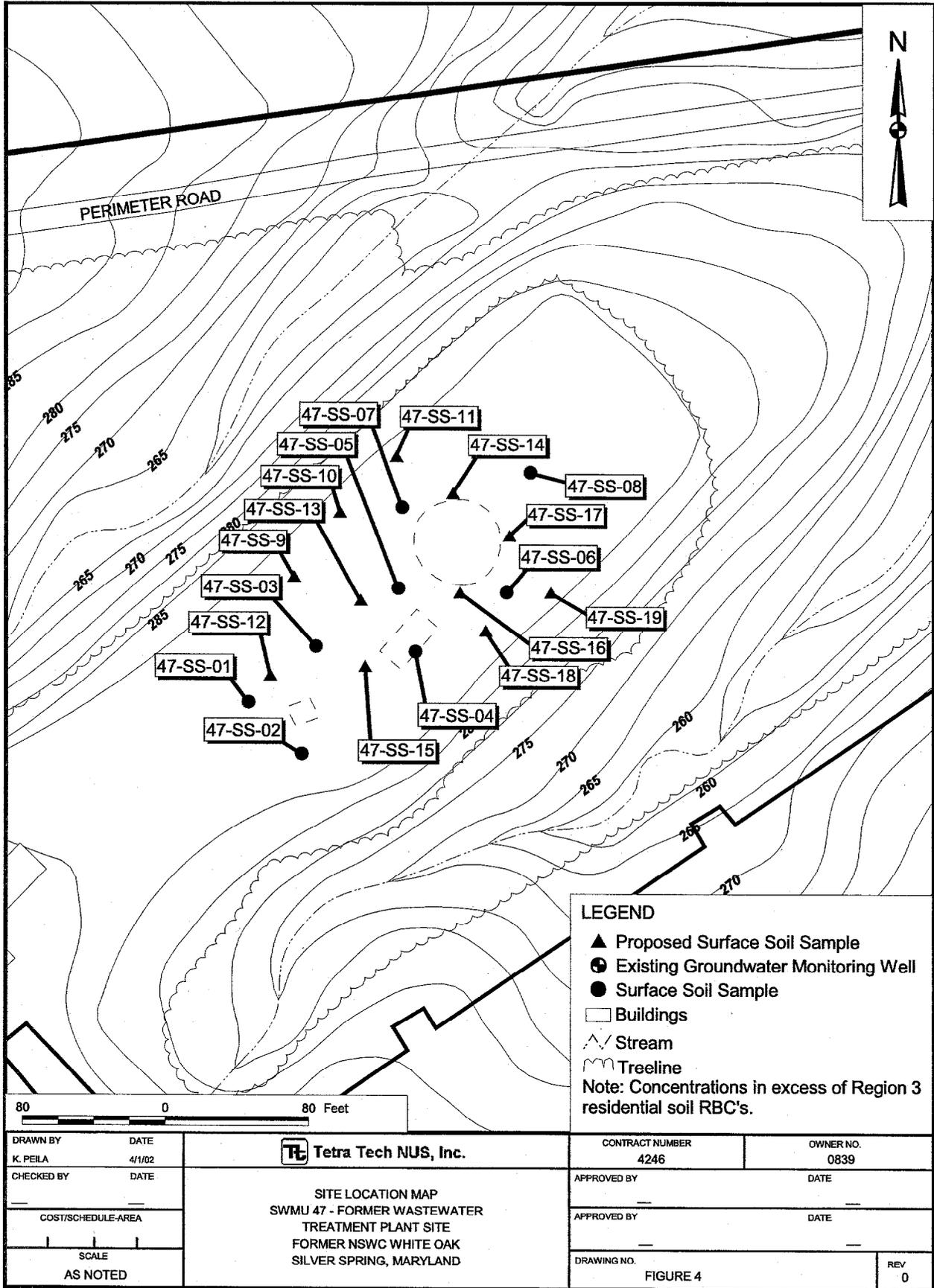


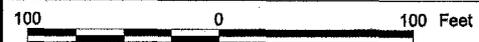
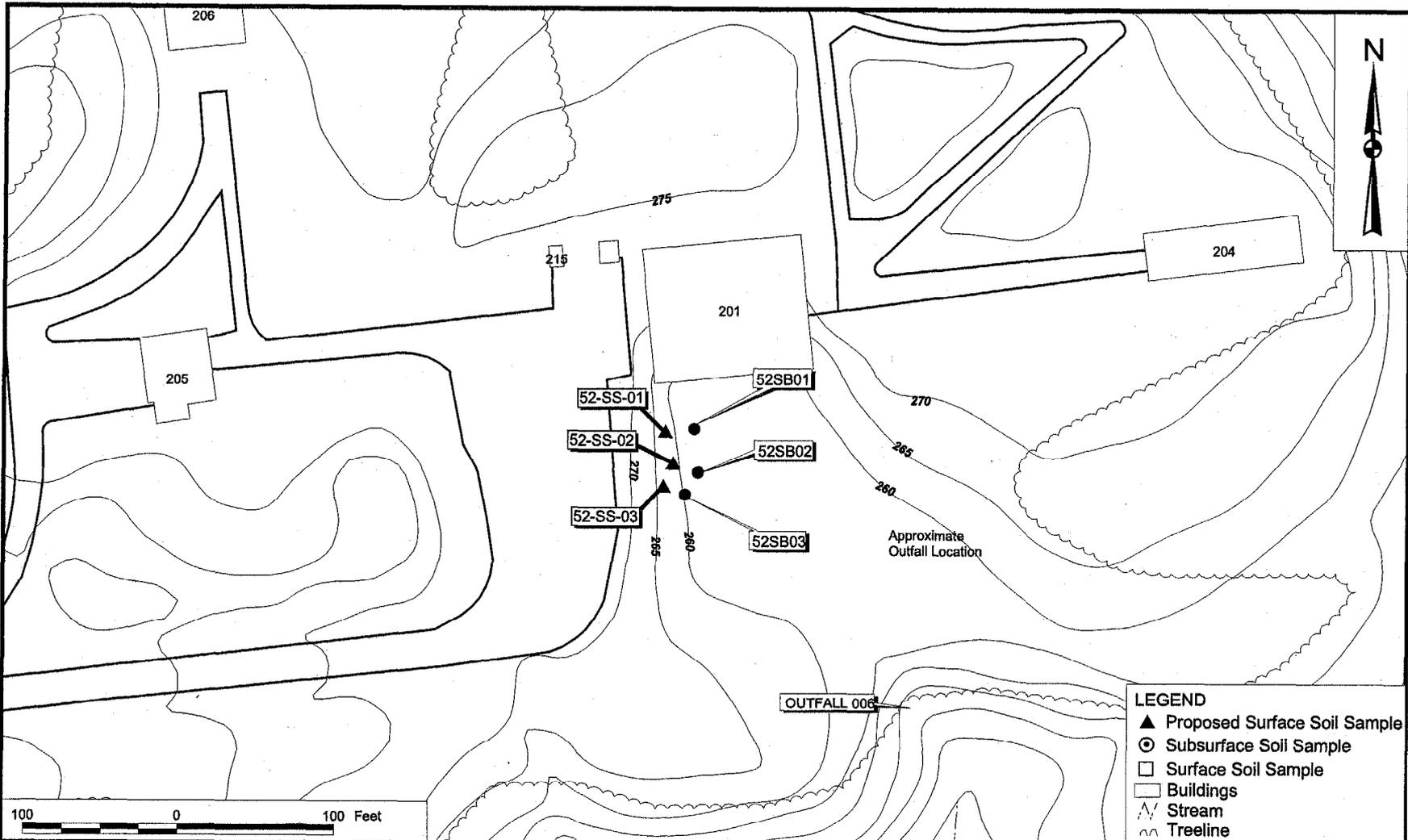
**LEGEND**

- ▲ Proposed Surface/Subsurface Soil Sample
- Proposed Surface Water Sample
- ⊕ Existing Groundwater Monitoring Well
- Surface Water Sample
- Buildings
- ~ Stream
- ⌒ Treeline

Note: Concentrations in excess of Region 3 tap-water RBC's.

DRAWN BY K. PEILA CHECKED BY COST/SCHEDULE-AREA SCALE AS NOTED	DATE 4/1/02 DATE DATE DATE DATE	Tetra Tech NUS, Inc.	CONTRACT NUMBER 4246 APPROVED BY APPROVED BY DRAWING NO. FIGURE 3	OWNER NO. 0839 DATE DATE REV 0
<b>SITE LOCATION MAP</b> <b>SWMU 41 - BUILDING 311 OXIDATION DITCH</b> <b>FORMER NSWC WHITE OAK</b> <b>SILVER SPRING, MARYLAND</b>				





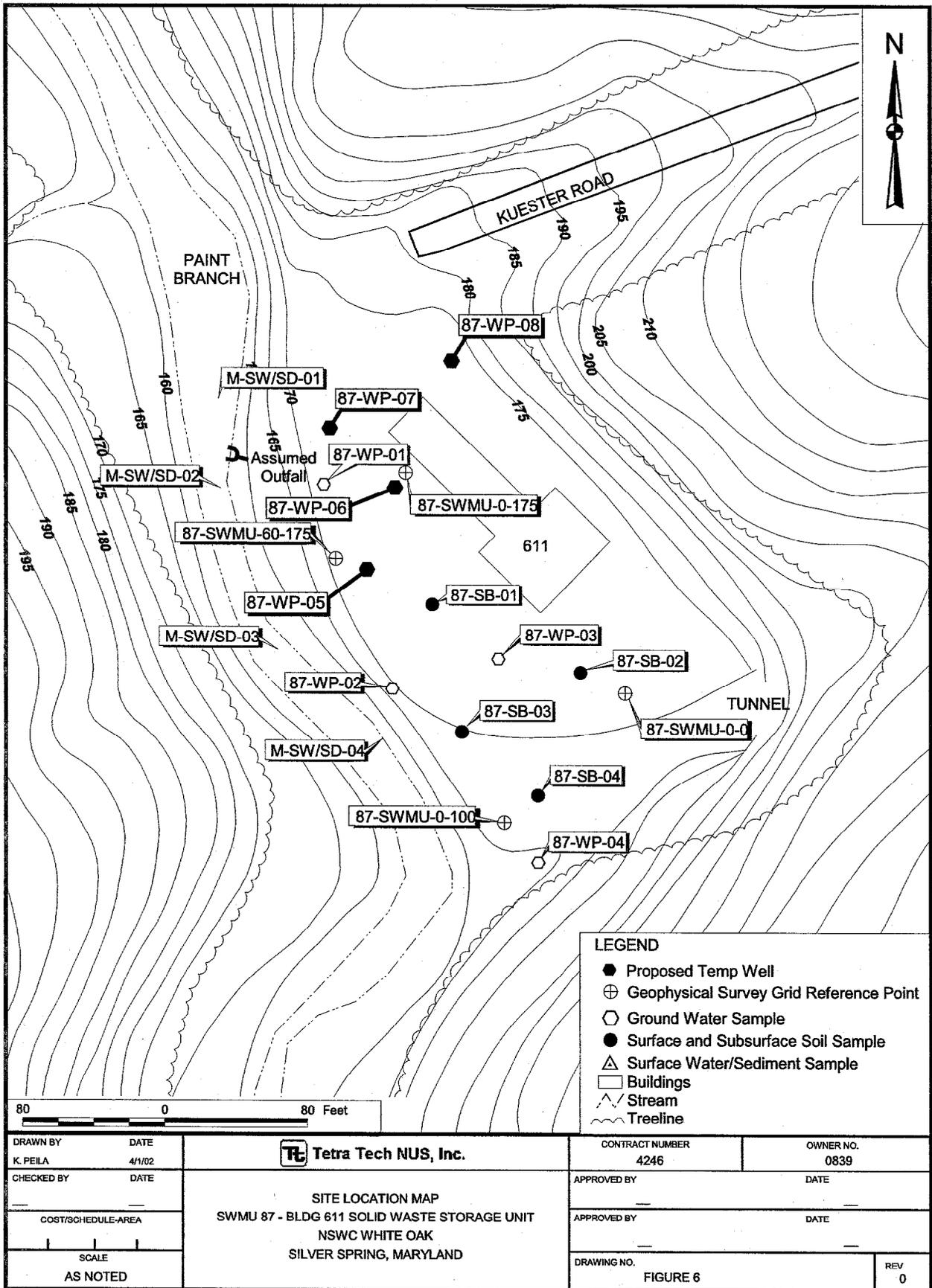
LEGEND	
▲	Proposed Surface Soil Sample
⊙	Subsurface Soil Sample
□	Surface Soil Sample
▭	Buildings
~	Stream
⌒	Treeline

DRAWN BY K. PEILA	DATE 4/1/02
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	

**Tetra Tech NUS, Inc.**

SITE LOCATION MAP  
 SWMU 52 - BUILDING 201 WASTE OIL OVERFLOW STORAGE TANK  
 NSWC WHITE OAK  
 SILVER SPRING, MARYLAND

CONTRACT NUMBER 4246	OWNER NUMBER 0839
APPROVED BY	DATE
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CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	

**Tetra Tech NUS, Inc.**

**SITE LOCATION MAP**  
**SWMU 87 - BLDG 611 SOLID WASTE STORAGE UNIT**  
**NSWC WHITE OAK**  
**SILVER SPRING, MARYLAND**

CONTRACT NUMBER 4246	OWNER NO. 0839
APPROVED BY	DATE
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