

APPENDIX B

Field Activity Forms

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APPENDIX B.1

Sampling Summary Forms

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FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-83 CR Site Name: Bldg 1039

Decision Unit: 1 Building No. 1039 Vertical Geoprobe No. 351

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1141 Weather: Pt. cldy 68°

Subsurface Sample ID: 083SB-0003M-0001-S0

Duplicate Sample ID: NA HORIZONTAL: 1-4 FT 083SB-0001M-0001-S0
4-7 FT 083SB-0002M-0001-S0
7-10 FT 083SB-0003M-0001-S0

Tube A Time 1133 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1135 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: RW, CG

Subcontractor (Name/Company): Fronz (driller)

Remarks: NA

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [Signature] DATE: 8/12/13
(Signature)



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-83 CR Site Name: Bldg 1039

Decision Unit: 1 Building No. 1039 Vertical Geoprobe No. 5802

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 12:15 Weather: pt. cl, 68°

Subsurface Sample ID: 0835B-0004M-0001-SO

MS/MSD

Duplicate Sample ID: 0835B-0004M-0002-SO

Tube A Time 11:50 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1:52 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: RW, CG

Subcontractor (Name/Company): Fronz (driller)

Remarks: NA

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☒ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [Signature]
(Signature)

DATE: 8/12/13



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-83 CR Site Name: Building 1037

Decision Unit: 1 Building No. 1037 Vertical Geoprobe No. SB03

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1245 Weather: 68° P + Clg

Subsurface Sample ID: 083SB-0005M-0001-SO

Duplicate Sample ID: ~~083SB-0006M-0001-SO~~

QA ID: 083SB-0007M-0001-SO

Tube A Time 1218 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1220 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: RW, CG

Subcontractor (Name/Company): Front (driller)

Remarks: ~~QA~~ QA for VOC/MTBE-SVOC-TAL metals
- Propellants + Explosives.

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☒ QA Sample Collected

RECORDED BY: [Signature] DATE: 8/12/13
(Signature)



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 83 CR Site Name: Bldg 1039

Decision Unit: 1 Building No. 1039 Vertical Geoprobe No. 5804

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1315 Weather: 78°, Pt. Cl.

Subsurface Sample ID: 083SB-0008M-0001-S0

Duplicate Sample ID: NA

Tube A Time 1249 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1251 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: PW, CG

Subcontractor (Name/Company): Fronz (driller)

Remarks: NA

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [Signature]
(Signature)

DATE: 8/12/13



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 83 CR Site Name: Bldg. 1039

Decision Unit: 1 Building No. 1039 Vertical Geoprobe No. SB5

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1415 Weather: 80° Pt. Cldy

Subsurface Sample ID: 083SB-0009M-0001-SO

QA ID: 083SB-0010M-0001-SO
~~Duplicate~~ Sample ID: 083SB-0010M-0001-SO

DSB 7-13M 083SB-0014-0001-SO

Tube A Time 1348 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1350 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time 1352 Interval Drilled (ft bgs): 10-13 Recovery (ft/in):

Field Samplers: RW, CG

Subcontractor (Name/Company): Franz (driller)

Remarks: ~~QA~~ QA for SVOC-TAL Metals - Explosives only

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☒ QA Sample Collected

RECORDED BY: [Signature]
(Signature)

DATE: 8/12/13



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 83 CR Site Name: Bldg. 1039

Decision Unit: / Building No. 1039 Vertical Geoprobe No. SR6

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1440 Weather: 81° PL. CL

Subsurface Sample ID: 083SB-0011M-0001-50

Duplicate Sample ID: NA

Tube A Time 1420 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1422 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: RW, CG

Subcontractor (Name/Company): Franz (driller)

Remarks: NA

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [Signature] DATE: 8/12/13
(Signature)



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 83 CR Site Name: Bldg. 1039

Decision Unit: 1 Building No. 1039 Vertical Geoprobe No. SB7

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1455 Weather: 81° Pt. Clky

Subsurface Sample ID: 083SB-0012M-0001-S0

Duplicate Sample ID: NA

Tube A Time 1432 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1434 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: RW, CG

Subcontractor (Name/Company): Franz (driller)

Remarks: NA

Laboratory Analysis:

☐ VOC ☐ TAL METALS ☐ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☐ PROPELLANTS

☒ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [Signature]
(Signature)

DATE: 8-12-13



FIELD LOG FORM

SUBSURFACE SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 83 CR Site Name: Bldg 1039

Decision Unit: / Building No. 1039 Vertical Geoprobe No. 588

Subsurface Sample Type: ☐ Horizontal ISM ☒ Vertical ISM ☐ Discrete ☐ Composite

Sample Date: 8/12/13 Time: 1510 Weather: 81° Pt. cld

Subsurface Sample ID: 0835B-0013M-0001-SO

Duplicate Sample ID: NA

Tube A Time 1443 Interval Drilled (ft bgs): 0-5 Recovery (ft/in): 100

Tube B Time 1445 Interval Drilled (ft bgs): 5-10 Recovery (ft/in): 100

Tube C Time _____ Interval Drilled (ft bgs): _____ Recovery (ft/in): _____

Field Samplers: RW, CG

Subcontractor (Name/Company): Fronz (driller)

Remarks: NA

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☐ TPH GRO/DRO ☐ PCBs ☒ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [Signature]
(Signature)

DATE: 8/12/13

APPENDIX B.2

Health and Safety Forms

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Vision
Integrity
Results

ECC

DAILY SAFETY MEETING SIGN-IN SHEET

Date:

Company:

8-12-13
8-11-13
ECC

Project Name/Location:

Person Conducting Briefing:

Ravenna AAP, Ravenna, OH

Jeff Donovan

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

Vehicle Awareness – Speed Limit on Base

Lifting Coolers, sampling equipment, lift with your legs

Level D PPE unless upgraded due to site conditions

Use caution when working around drill rig

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

NO NEW AHA'S OR HASP CHANGES

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

DRILLERS PERFORM INITIAL DE-CON OF EQUIP. w/ PIRELLA WASH
BELLW 15m SOIL SAMPLING AT BLW 1029 LAB.
STAKE BENTONITE LOCATIONS w/ GPS AT BLW 1029 + BENTONITE 5

4. ATTENDEES (Print Name):

1. Jeff Donovan	2. David Conner
3. AL EASTERDAY	4. Zach Noble
5. Catherine Guido	6. [Signature]
7. Roxann Williams	8. [Signature]
9. ERIC CHENG (USACE)	10. [Signature]
11. Scott Kelly (USACE)	12. [Signature]
13. MIKE MCMAHON	14. Michael W. McMahon
15. DANIEL TOWNSEND	16. [Signature]
17.	18.
19.	20.
21.	22.
23.	24.
25.	26.
27.	28.
29.	30.



Vision
Integrity
Results

ECC

DAILY SAFETY MEETING SIGN-IN SHEET

Date:
Company:

8/14/13
ECC

Project Name/Location:
Person Conducting Briefing:

Ravenna AAP, Ravenna, OH
Jeff Donovan

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

Vehicle Awareness – Speed Limit on Base

Lifting Coolers, sampling equipment, lift with your legs

Level D PPE unless upgraded due to site conditions

Use caution when working around drill rig

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

- check for ticks often!
- watch your footing, uneven ground

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

CONTINUE SPRAYING AT CL 83 AND CL 74
LOCATE SURVEY POINTS

4. ATTENDEES (Print Name):

1. Jeff Donovan	2. <u>D. Smith</u>
3. Catherine Guido	4. <u>Ryan Williams</u>
5. <u>AL EASTMAN</u>	6. <u>Loch Noble</u>
7. <u>David Compau</u>	8. <u>David Compau</u>
9. <u>DAN TOWNSEND</u>	10. <u>David</u>
11. <u>MIKE MCMAHON</u>	12. <u>Michael W. Mc Mahon</u>
13.	14.
15.	16.
17.	18.
19.	20.
21.	22.
23.	24.
25.	26.
27.	28.
29.	30.



**Environmental Chemical
Corporation**

**ACTIVITY HAZARD ANALYSIS
TRAINING DOCUMENTATION**

Project Name: Ravenna AAP, Ravenna, OH

Activity Hazard Analysis Review

AHA Title:

*DIRECT ASBESTHOSIS
EQUIP. DECONTAMINATION*

By signing below, I agree to the following:

- I agree to follow the work steps and implement the controls as written.
- I agree to stop work when conditions or hazards change or when I encounter unexpected conditions during the execution of work, or when work cannot be performed as written, or instructions become unclear during execution.
- I am qualified and fit to perform the work.

Worker (Signature / Date)

Zachary Noble July 29th 8/12/13

Worker (Signature / Date)

Worker (Signature / Date)

Artie Shanks Artie Shanks 8/12/13

Worker (Signature / Date)

Worker (Signature / Date)

Worker (Signature / Date)

Worker (Signature / Date)

Worker (Signature / Date)

Worker (Signature / Date)

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Worker (Signature / Date)

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Environmental Chemical
Corporation

VISITOR INFORMATION FORM

PROJECT NAME: RAVenna 8-12-13

You are entering a hazardous waste/construction-site. Unprotected exposure to hazardous chemicals can cause mild to serious health effects. Heavy equipment operations and other inherently dangerous work are underway. You will remain with your designated escort at all times and follow their instructions for your safety and the safety of others. Minimum requirement for personal protective equipment is Level D protection (hard hat, ANSI-approved safety footwear, and safety glasses). Equipment issued must be returned prior to leaving the site.

VISITOR'S CERTIFICATION

I acknowledge that I have been advised of the dangers present at this hazardous waste site facility. I agree to immediately follow all directions given by my escort on-site. I also certify that I do relieve ECC, the U.S. Government, the applicable state in which the project site is located, their officers, employees, and agents of all liability of all consequences raising from and related to the potential hazards associated with entry to this site.

PRINT NAME

SIGNATURE

DATE

ERIC CHENG
Scott Kelly

8/12/13
8/12/13

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APPENDIX B.3

Field Notes

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RJAAP

Mon, 12 Aug 13

JASON SCOTT, P.G.-ECC

Weather: Overst, 78°, W SW 0-5.

Personnel: ECC, Frante

Objectives: Soil Sampling @ CC-83

1020 JS onsite. Reviews dily & gate
HIS drill. Reviews other docs.

1040 Stby for Field Variance of
bore hole locations based on
Observed sewer line location.

1143 Begin Boring @ SB-1. See boring
logs for details.

1200 Per JD, VOC samples @ 7' bgs
or highest significant PID.
Headspace Readings every 1' in
Core + every 2' from cased
Jars.

1500 Drillers complete boring @ CC-83
+ Move to Bldg. 1034 to
begin Coring.

1540 Begin drilling @ Bldg 1034,
SB-20

1650 DID h.b. @ 8' @ SB-20. W 15 ft. @
Move to 1036.

RUAAP

Tue. 13 Aug 13

JASON SCOTT, P.G.-ECC

Weather: Pt. Cl, 68°F, NW @ 2-6

Personnel: Frante; ECC

Objectives: Collect sub soil samples @ CC 71

0700 All persons @ 1036, see tailgate log.

0730 Move to CC 71, Barn 5.

0815 Begin DP drilling @ SB-1

0820 Even depth PID Readings from headspace
jars + odd PID readings from liner.

1045 Complete boring on N side of fence.
Drillers move to S. side of fence.

1130 Begin DP @ SB9 on S. Side of fence.

1440 Finished @ CC 71, move to Bldg.
1036 for supplies

1530 RW, JS, Frante @ Bldg. 10-10.

1533 Begin DP @ 10-10, SB-3.

1700 DP drilling complete. Drillers
Demitte for day.

1746 RW, JS move to 1036.

JASON SCOTT

L. U. M. E.

RUAAD

Wed, 14 Aug 13

Weather; Overcast, 68° JASON SCOTT, P.D. & C.

Personnel; JS, CG, RW, Frantz

Objectives: Complete CC74, CC83, & CC72

- 0700 JS @ Bldg 1036.
- 0730 Move to 1034.
- 0740 Begin DP@ SB-21.
- 0805 PID Reading very slowly
- 0820 Calibrate Backup PID. C_6^{12}
reading = 100 ppm.
- 0840 Move to Bldg 1039.
- 0854 DP@ SB-5 to collect VOC
samples. See entry log from 12 Aug.
- 0900 Bldg 1039 VOCs @ 3'
- 0905 " VOCs @ 6'
- 0910 " VOCs @ 8'
- 0915 Move to 1036. ~~for more VOCs~~ JS
- 0920 Move to CC75. Collect Hg samples
- 1036 Begin DSB@ CC72-08
- 1100 Move to RU88
- 1133 Surveyors locate SB-5 @ RU-88
- 1227 Begin Boring @ CC72-SB-2
- 1303 Begin DSB@ RV-41, SB01
- 1347 Begin DSB@ CC72-01, SB03
- 1355 Obstruction @ 3'. Move DSB to

RUAAP

14 Aug 13

- 1355 cont. coincide with SB-05.
- 1415 Move to 1036. Drillers to do con.
- 1445 JS moves to Quarry Ponds to
assist surveyors.
- 1530 JS moves to 1036.
- 1700 End of day.

APPENDIX B.4

Photoionization Detector Calibration Forms

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INSTRUMENT CALIBRATION LOG

Project/Site Name Rguenna, OH

Calibrated By David Gomez

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