



Appendix O

Surface Water Field Sampling Forms

C-Block Quarry

Building 1200

Landfill North of Winklepeck Burning Grounds

Pistol Range

Load Line 5

Load Line 7

Load Line 8

Load Line 10

Buildings F-15/F-16

Atlas Scrap Yard

Location ID: CBL-SW-001-SW
 Date: 11-9-07

Field Sampling Report

Ravenna Army Ammunition Plant
 Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
			Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1455 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: 0 (surface) FT (below surface) Decon: Dedicated Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO		Corrosivity		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	<input checked="" type="checkbox"/>	Ignitability		
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate				
Water Level <u>0.5</u> FT	TAL Metals	<input checked="" type="checkbox"/>			QA Samples		
Temperature <u>8.4</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>			MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.067</u> uMHOs	Cyanides				Duplicate ID		NA
pH <u>5.84</u> units	TOC				Equipment Rinse ID		NA
Turbidity _____ N.T.U.	Grain Size				<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description
DO: 5.01, Brownish color, organic odor, medium-to-high turbidity, no-sheen

Split Sample
 Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

 QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Michael Samuelak (Please Print) Reviewed by: ERIC EWIS (Please Print)
 Signature: Michael Samuelak Signature: ERIC EWIS Date: 2/1/08

Location ID: CBLSW-002-SW
 Date: 09 Nov 04

Field Sampling Report

Ravenna Army Ammunition Plant
 Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge		
Method	Bailer	/	Sample Bottle	X	Scoop	/	Trowel
	Pump		Bacon Bomb		Bowl		Hand Auger
					Push Probe		Plastic Liner
Type/Construction					Mattocks		
Miscellaneous	Well Purging Form Yes - No						

Sample Collection: 1250 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: Surface FT (below surface) Decon: Dedicated Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters			
PID / FID Readings: Background: ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO		Corrosivity	/		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	<input checked="" type="checkbox"/>	Ignitability			
Sample: ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate					
Water Level: FT	TAL Metals	<input checked="" type="checkbox"/>			QA Samples			
Temperature: <u>5.8</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>			MS/MSD	Yes / No	(NA)	
Sp. Conductance: <u>0.098</u> uMHOs	Cyanides				Duplicate ID	<u>CBLSW-002-DUP</u>	(NA)	
pH: <u>5.60</u> units	TOC				Equipment Rinse ID		(NA)	
Turbidity: N.T.U.	Grain Size				Trip Blank ID	<u>Trip Blank</u>	(NA) <u>3/1/04</u>	

DO: 6.50, clear brown color,
 no odor, no sheen, low turbidity

Sample Description

Split Sample ID: CBLSW-002-SW
 Name: John Lent (CELE-ED-BC)
 Agency/Company: USACE-Louisville
 Address: 600 DE MARIN WILSON LEO JR PLAZA
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Michael Samelak (Please Print) Reviewed by: ERIC EUIS (Please Print)
 Signature: Michael Samelak Signature: [Signature] Date: 2/1/05

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Location ID: CBLSW-003-SW
Date: 08-Nov-04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	X	Scoop
	Pump	Bacon Bomb		Bowl
				Push Probe
Type/Construction			Mattocks	Trowel
Miscellaneous	Well Purging Form Yes - No			Hand Auger Plastic Liner

Sample Collection: 1430 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
If MI, # of increments taken: _____
 Sample Depth: Surface FT (below surface) Decon: Dedicated Each Day - Each Location
Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters			
PID / FID Readings: Background: ppm	VOC	✓	TPH GRO		Corrosivity			
	SVOC	✓	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	✓	Chromium +6	✓	Ignitability			
Sample: ppm	Propellants	✓	Nitrate					
Water Level <u>0.3</u> FT	TAL Metals	✓			QA Samples			
Temperature <u>8.9</u> °C	Pesticides/PCBs	✓			MS/MSD	Yes / No	NA	
Sp. Conductance: <u>0.177</u> uMHOs	Cyanides				Duplicate ID		NA	
pH <u>6.06</u> units	TOC				Equipment Rinse ID		NA	
Turbidity N.T.U.	Grain Size				<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA	

Sample Description
DO: 7.89
Clear, some organic material, Sheen Present,
Medium Turbidity

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate Trip Blanks Field Blanks
Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: Michael Samelak Signature: ERIC EWS Date: 2/1/05

Location ID: CBL5W-004-SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
			Push Probe
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: 1415 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: Surface FT (below surface)

Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO		Corrosivity	
	SVOC	<input checked="" type="checkbox"/>	TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	<input checked="" type="checkbox"/>	Ignitability	
Sample: ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate			
Water Level: <u>0.25</u> FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature: <u>7.5</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.101</u> uMHOs	Cyanides			Duplicate ID		NA
pH: <u>6.42</u> units	TOC			Equipment Rinse ID		NA
Turbidity: <u>1</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description

Clear, Organic Odor, Sheen, Low-Med Turbidity

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Samuels (Please Print)

Reviewed by: SEK / ERL ELIS (Please Print)

Signature: Michael Samuels

Signature: SEK

Date: 2/1/05

Field Sampling Report

Location ID: B12SW-025-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-5-04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb		Bowl	Hand Auger
				Push Probe	Plastic Liner
Type/Construction	Direct Fill			Mattocks	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 0845hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: Surface FT (below surface) Decon: Decontaminated Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability		
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate			
Water Level <u>~1.0</u> FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature <u>5.7</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NA
Sp. Conductance: <u>0.327</u> uMHOS	Cyanides			Duplicate ID	<u>B12SW-025-DUP</u>	NA
pH <u>6.62</u> units	TOC			Equipment Rinse ID		<input checked="" type="checkbox"/> NA
Turbidity _____ N.T.U.	Grain Size			Trip Blank ID	<u>Trip Blank</u>	<input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> Yes

Sample Description
DO: 6.30 mg/L; water is clear, no odor, low turbidity, no sheen, slight sheen

Split Sample

Split Sample ID: B12SW-025-SW
 Name: John Tent
 Agency/Company: USACE Louisville
 Address: 600 DR. MARTIN LUTHER KING JR PARK LOUISVILLE, KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Stephen Sturgeon (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: B12SW-026-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11-5-04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb		Bowl	Hand Auger
Type/Construction		<u>Direct Run</u>		Push Probe	Plastic Liner
Miscellaneous	Well Purging Form Yes - No			Mattocks	

Sample Collection: 10:45 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: Surface FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability		
Sample: ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate			
Water Level <u>0.3</u> FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature <u>9.2</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.207</u> uMHOs	Cyanides			Duplicate ID		NA
pH <u>6.80</u> units	TOC			Equipment Rinse ID		NA
Turbidity <u>NA</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description

DO: 9.87, Temp
clear, No Odor, No Sheen, Low Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Sametak (Please Print)

Reviewed by: ERIC EWS (Please Print)

Signature: Michael Sametak

Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: L/VW SW-047-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 03 Nov 04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop
	Pump	Bacon Bomb		Bowl
				Hand Auger
Type/Construction	<u>Direct Fill</u>			
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: 1010 hrs Sample Type: Composite/(MI) Grab
If ML, # of increments taken: Location: Plotted on Map - Staked in Field
 Sample Depth: ~2' FT (below surface) Decon: Dedicated - Each Day Each Location
Estimated - Measured - Surveyed

Field Parameters <small>(at time of sample)</small>	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity	
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability	
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate		
Water Level: _____ FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples	
Temperature: <u>11.4</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	Yes / No NA
Sp. Conductance: <u>0.274</u> $\mu\text{mhos/cm}$	Cyanides			Duplicate ID	NA
pH: <u>6.90</u> units	TOC			Equipment Rinse ID	NA
Turbidity: <u>~8</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Blank</u> NA

Sample Description

Clear No Color No Sheen Low Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Mark Dunbar (Please Print)

Reviewed by: ERIC FELLS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/1/05

Location ID: LNWSW-048-SW **Field Sampling Report** Ravenna Army Ammunition Plant
 Date: 11/03/04 Characterization of 14 RVAAP AOCs

Sampling Information			
Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	X Scoop
	Pump	Bacon Bomb	Bowl Hand Auger
			Push Probe
Type/Construction	Direct Fill		
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: 0910 hrs Sample Type: Composite/(MI) - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken Estimated - Measured - Surveyed
 Sample Depth: 2 inches (below surface) Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters		Other Parameters
PID / FID Readings: Background: ppm	VOC	X	TPH GRO
	SVOC	X	TPH DRO
	Explosives	X	Chromium +6
Sample: ppm	Propellants	X	Nitrate
	TAL Metals	X	
Water Level - FT	Pesticides/PCBs	X	
Temperature <u>11.3</u> °C	Cyanides		
Sp. Conductance: <u>0.151</u> ms/cm (µMHOs)	TOC		
pH <u>5.90</u> units	Grain Size		
Turbidity <u>5</u> N.T.U.			
			QA Samples
			MS/MSD Yes / No NA
			Duplicate ID NA
			Equipment Rinse ID NA
			Trip Blank ID <u>Trip Blank</u> NA

Sample Description
Clear No Odor No Sheen No Turbidity

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample
 Split Sample ID:
 Name:
 Agency/Company:
 Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: Mark Danley (Please Print) Reviewed by: Sue Boles (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 11/23/05

Field Sampling Report

Location ID: L NWSW-049-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 02 Nov 04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb		Bowl	Hand Auger
Type/Construction		<u>DEEP PILL</u>		Push Probe	Plastic Liner
Miscellaneous	Well Purging Form Yes - No			Mattocks	

Sample Collection: 1435 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: 2' FT (below surface) Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide		
Sample: _____ ppm	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability		
	Propellants	<input checked="" type="checkbox"/>	Nitrate			
Water Level _____ FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples		
Temperature <u>15.2</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.283</u> $\mu\text{MHOs/cm}$	Cyanides			Duplicate ID		NA
pH <u>7.35</u> units	TOC			Equipment Rinse ID		NA
Turbidity <u>-10</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description
Clear No Odor No Sheen Low Turb.

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Mark Dunlavy (Please Print)
 Signature: [Signature]

Reviewed by: ERIC ELLIS (Please Print)
 Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: LNW5W-050-5W

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 02 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop
	Pump	Bacon Bomb		Bowl
				Push Probe
Type/Construction		Direct Fill		Mattocks
Miscellaneous	Well Purging Form Yes - No			Trowel Hand Auger Plastic Liner

Sample Collection: 1130 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: 0.2 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity	
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability	
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate		
Water Level _____ FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples	
Temperature <u>13.7</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	Yes / No NA
Sp. Conductance: <u>0.266</u> mS/cm	Cyanides			Duplicate ID	NA
pH <u>7.40</u> units	TOC			Equipment Rinse ID	NA
Turbidity <u>-10</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Blank</u> NA

Sample Description

Clear No odor No Sheen Low Turb.

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Mark Dunlop (Please Print)

Reviewed by: ERIC ELVIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/1/05

Location ID: LNWSW - 051 - SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/02/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
			Push Probe
Type/Construction		<u>DEBIT FLOW</u>	Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: 0945 hrs Sample Type: Composite - MI - Grab
If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 2 inches FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters																	
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity																	
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide																	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability																	
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate	<table border="1"> <thead> <tr> <th colspan="3">QA Samples</th> </tr> </thead> <tbody> <tr> <td>MS/MSD</td> <td>Yes / No</td> <td>NA</td> </tr> <tr> <td>Duplicate ID</td> <td></td> <td>NA</td> </tr> <tr> <td>Equipment Rinse ID</td> <td></td> <td>NA</td> </tr> <tr> <td>Trip Blank ID</td> <td><u>Trip Blank</u></td> <td>NA</td> </tr> </tbody> </table>			QA Samples			MS/MSD	Yes / No	NA	Duplicate ID		NA	Equipment Rinse ID		NA	Trip Blank ID	<u>Trip Blank</u>	NA
QA Samples																					
MS/MSD	Yes / No	NA																			
Duplicate ID		NA																			
Equipment Rinse ID		NA																			
Trip Blank ID	<u>Trip Blank</u>	NA																			
Water Level: _____ FT	TAL Metals	<input checked="" type="checkbox"/>																			
Temperature: <u>14.8</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>																			
Sp. Conductance: <u>0.255</u> ^{mS/cm} _{uMHOs}	Cyanides																				
pH: <u>6.63</u> units	TOC																				
Turbidity: <u>-10</u> N.T.U.	Grain Size																				

Sample Description
No odor, moderate turbidity
yellowish brown water, metallic

Split Sample
Split Sample ID: _____
Name: _____
Agency/Company: _____
Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blank - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
Color Odor Sheen Turbidity

Logged By: Vijay Alluri (Please Print)
Signature: vijay

Reviewed by: FALBUS (Please Print)
Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: LNW_{SW} - 052-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/06/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb		Bowl	Hand Auger
				Push Probe	Plastic Liner
Type/Construction		<u>DIRECT FLOW</u>		Mattocks	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: ~~0.905~~ hrs 1015

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: SURFACE FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	X	TPH GRO	Corrosivity		
	SVOC	X	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: ppm	Propellants	X	Nitrate			
Water Level: <u>1.5</u> FT	TAL Metals	X		QA Samples		
Temperature: <u>5.4</u> °C	Pesticides/PCBs	X		MS/MSD	Yes / No	(NA)
Sp. Conductance: <u>0.248</u> uMHOs	Cyanides			Duplicate ID	<u>LNW_{SW} - 052 - SW</u> (NA)	
pH: <u>6.81</u> units	TOC			Equipment Rinse ID	(NA)	
Turbidity: <u>4/4</u> N.T.U.	Grain Size			Trip Blank ID	<u>Trip Blank</u> (NA) 6/8	

Sample Description

R LIGHT AMBER, NO ODCR, NO SHEEN

Split Sample

Split Sample ID: LNW_{SW} - 052-SW
 Name: JOHN JENT (CEMAL-ED-BK)
 Agency/Company: USACE-LOUISVILLE
 Address: 600 DE MARIN WILSON KIM JE PLAZA
LOUISVILLE, KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: NILESH SHRINGAPURE (Please Print)

Reviewed by: ERIC ELUIS (Please Print)

Signature: N. Shringarpure

Signature: Eric Eluis Date: 2/1/05

Field Sampling Report

Location ID: PIRsw-001-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 17/Nov/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb		Bowl	Hand Auger
				Push Probe	Plastic Liner
Type/Construction		<u>DIRECT FILL</u>		Mattocks	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1420 hrs Sample Type: Composite - MI Grab Location: Plotted on Map - Staked in Field
 If MI # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: Surface FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters					
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity					
	SVOC	<input checked="" type="checkbox"/>	TPH DRO				Reactivity Sulfide/Cyanide		
	Explosives	<input checked="" type="checkbox"/>	Chromium +6						
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate	QA Samples					
Water Level <u>2.0</u> FT	TAL Metals	<input checked="" type="checkbox"/>					MS/MSD	Yes / No	NA
Temperature <u>1.4</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>					Duplicate ID		NA
Sp. Conductance: <u>0.072</u> uMHOs	Cyanides						Equipment Rinse ID		NA
pH <u>7.57</u> units	TOC			<u>Trip Blank ID</u>	<u>TRIP BLANK</u>	NA <u>ELC</u>			
Turbidity <u>137</u> N.T.U.	Grain Size								

Sample Description

Clear, No Odor, No Sheen, Low Turb

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

 QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Samelak (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: Michael Samelak

Signature: ERIC ELLIS Date: 2/1/05

Field Sampling Report

Location ID: LL 5SW-001-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/06/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
			Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: NA hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: _____

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: NA FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	Corrosivity
	TPH GRO	Reactivity Sulfide/Cyanide
Sample: ppm	SVOC	Ignitability
	TPH DRO	
	Explosives	
	Chromium +6	
	Propellants	
	Nitrate	
Water Level: FT	TAL Metals	
Temperature: °C	Pesticides/PCBs	QA Samples
Sp. Conductance: uMHOs	Cyanides	MS/MSD: Yes / No: NA
pH: units	TOC	Duplicate ID: NA
Turbidity: N.T.U.	Grain Size	Equipment Rinse ID: NA
		Trip Blank ID: NA

Sample Description

Split Sample

Split Sample ID: _____
Name: _____
Agency/Company: _____
Address: _____

No Water
No Sample Collected

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: James Panarzo (Please Print)

Reviewed by: Sue Boles (Please Print)

Signature:

Signature: Sue Boles Date: 02/23/05

Field Sampling Report

Location ID: LLSSW-002-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/10/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: NA hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: NA FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	Corrosivity
	SVOC	Reactivity Sulfide/Cyanide
	Explosives	Ignitability
Sample: ppm	Propellants	
	Nitrate	
Water Level FT	TAL Metals	QA Samples
Temperature °C	Pesticides/PCBs	MS/MSD Yes / No NA
Sp. Conductance: uMHOs	Cyanides	Duplicate ID NA
pH units	TOC	Equipment Rinse ID NA
Turbidity N.T.U.	Grain Size	Trip Blank ID NA

Sample Description

No Water
No Sample collected

*Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____

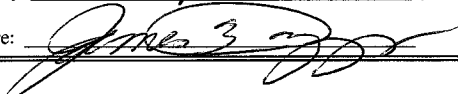
Name: _____

Agency/Company: _____

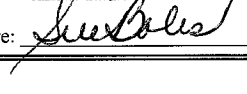
Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Danovzo (Please Print)

Signature: 

Reviewed by: Due Bdes (Please Print)

Signature:  Date: 2/23/05

Field Sampling Report

Location ID: LL5 SW 003-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/06/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: NA hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Sample Depth: NA FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: ppm	VOC	TPH GRO		Corrosivity	
	SVOC	TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	Chromium +6		Ignitability	
Sample: ppm	Propellants	Nitrate			
Water Level: FT	TAL Metals			QA Samples	
Temperature: °C	Pesticides/PCBs			MS/MSD	Yes / No NA
Sp. Conductance: uMHOs	Cyanides			Duplicate ID	NA
pH: units	TOC			Equipment Rinse ID	NA
Turbidity: N.T.U.	Grain Size			Trip Blank ID	NA

Sample Description

No Water
No Sample collected

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

 QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Lanzetta (Please Print)

Signature: [Signature]

Reviewed by: Sue Boles (Please Print)

Signature: [Signature] Date: 2/23/05

Field Sampling Report

Location ID: LL55W 004-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/06/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: NA hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Sample Depth: NA FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	TPH GRO	Corrosivity			
	SVOC	TPH DRO	Reactivity Sulfide/Cyanide			
	Explosives	Chromium +6	Ignitability			
Sample: ppm	Propellants	Nitrate				
Water Level: FT	TAL Metals		QA Samples			
Temperature: °C	Pesticides/PCBs		MS/MSD	Yes / No	NA	
Sp. Conductance: uMHOs	Cyanides		Duplicate ID		NA	
pH: units	TOC		Equipment Rinse ID		NA	
Turbidity: N.T.U.	Grain Size		Trip Blank ID		NA	

Sample Description

No water
No sample collected

*Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Knorz (Please Print) Reviewed by: Sue Boles (Please Print)

Signature: [Signature] Signature: [Signature] Date: 12/23/05

Field Sampling Report

Location ID: LL5SW-005-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/06/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: NA hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Sample Depth: NA FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	TPH GRO
	SVOC	TPH DRO
	Explosives	Chromium +6
Sample: ppm	Propellants	Nitrate
Water Level: FT	TAL Metals	QA Samples
Temperature: °C	Pesticides/PCBs	MS/MSD Yes / No NA
Sp. Conductance: uMHOS	Cyanides	Duplicate ID NA
pH: units	TOC	Equipment Rinse ID NA
Turbidity: N.T.U.	Grain Size	Trip Blank ID NA

Sample Description

*No water
No sample collected*

*Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Panizza (Please Print)

Signature: *James Panizza*

Reviewed by: Sue Boles (Please Print)

Signature: *Sue Boles* Date: 2/23/05

Field Sampling Report

Location ID: LL5SW-006-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/06/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: NA hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: NA FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC		TPH GRO	Corrosivity		
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives		Chromium +6	Ignitability		
Sample: ppm	Propellants		Nitrate			
Water Level: FT	TAL Metals			QA Samples		
Temperature: °C	Pesticides/PCBs			MS/MSD	Yes / No	NA
Sp. Conductance: uMHOs	Cyanides			Duplicate ID		NA
pH: units	TOC			Equipment Rinse ID		NA
Turbidity: N.T.U.	Grain Size			Trip Blank ID		NA

Sample Description

No Water
No Sample collected

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Kanor (Please Print)

Signature:

Reviewed by: Sue Boles (Please Print)

Signature: Date: 12/23/05

Location ID: LL5SW-007-SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/6/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
Type/Construction	Peristaltic Pump X		Hand Auger
			Plastic Liner
Miscellaneous	Well Purging Form Yes - No		Mattocks

Sample Collection: 0930 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____
 Sample Depth: 13.31 FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	X	TPH GRO	Corrosivity		
	SVOC	X	TPH DRO	Reactivity Sulfide/Cyanide		
Sample: ppm	Explosives	X	Chromium +6	Ignitability		
	Propellants <u>94</u>	X	Nitrate			X
Water Level <u>13.31</u> FT	TAL Metals	X		QA Samples		
Temperature <u>7.2</u> °C	Pesticides/PCBs	X		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.123</u> uMHOs	Cyanides			Duplicate ID	<u>LL5SW-007-DUP</u>	NA
pH <u>7.07</u> units	TOC			Equipment Rinse ID		NA
Turbidity <u>82</u> N.T.U.	Grain Size			Trip Blank ID	<u>Trip Blank</u>	NA <u>95</u>

Sample Description
Clear water, NO odor, NO sheen.
Low turb.
DO: 10.68

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample
 Split Sample ID: LL5SW-007-SW
 Name: John Jent (CELRL-EK-ED)
 Agency/Company: USACE - Louisville
 Address: 600 Dr. Martin Luther King Dr. Plaza
Louisville, KY. 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above As Listed

Logged By: Shahram Taherinia (Please Print) Reviewed by: Sue Boles (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 02/23/05

Location ID: LL5SW-008-SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/6/04

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge		
Method	Bailer		Sample Bottle		Scoop		Trowel
	Pump		Bacon Bomb		Bowl		Hand Auger
			<u>Peristaltic Pump</u>	<u>X</u>	Push Probe		Plastic Liner
Type/Construction					Mattocks		
Miscellaneous	Well Purging Form Yes - No						

Sample Collection: 115 hrs

Sample Type: Composite - MI Grab
If MI, # of increments taken:

Location: Plotted on Map Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 5.38 FT (below surface)

Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: ppm	VOC	<u>X</u>	TPH GRO		Corrosivity		
	SVOC	<u>X</u>	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	<u>X</u>	Chromium +6		Ignitability		
Sample: ppm	Propellants	<u>X</u>	Nitrate	<u>X</u>			
Water Level <u>5.38</u> FT	TAL Metals	<u>X</u>			QA Samples		
Temperature <u>8.6</u> °C	Pesticides/PCBs	<u>X</u>			MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.147</u> uMHOs	Cyanides				Duplicate ID		NA
pH <u>5.57</u> units	TOC				Equipment Rinse ID		NA
Turbidity <u>132</u> N.T.U.	Grain Size				<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description

Clear water, no sheen, no odor

Low Turb.

DO: 10.42

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Shahram Taherinia (Please Print)

Reviewed by: Sue Boles (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/23/05

Field Sampling Report

Location ID: LL5SW-009-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/7/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
		<u>Peristaltic Pump X</u>	Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection 0920 hrs

Sample Type: Composite - MI - grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 13.2 FT (below surface)

Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	X	TPH GRO	Corrosivity		
	SVOC	X	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	Ignitability		
Sample: ppm	Propellants		Nitrate	X		
Water Level <u>13.2</u> FT	TAL Metals	X		QA Samples		
Temperature <u>11.75</u> °C	Pesticides/PCBs	X		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.175</u> uMHOs	Cyanides			Duplicate ID		NA
pH <u>6.24</u> units	TOC			Equipment Rinse ID		NA
Turbidity <u>20</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description
Clear water, no odor, no sheen,
Low Turbidity
DO: 11.36

Split Sample

Split Sample ID: _____
Name: _____
Agency/Company: _____
Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Shahram Taherinia (Please Print)

Reviewed by: Sue Boies (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/23/05

Field Sampling Report

Location ID: LL5SW-010-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/7/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	
Method	Bailer	Sample Bottle	Scoop / Trowel
	Pump	Bacon Bomb	Bowl / Hand Auger
		<u>Peristaltic Pump X</u>	Push Probe / Plastic Liner
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: 1000 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: 11.3 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: _____ ppm	VOC <u>X</u> TPH GRO	Corrosivity
	SVOC <u>X</u> TPH DRO	Reactivity Sulfide/Cyanide
	Explosives <u>X</u> Chromium +6	Ignitability
Sample: _____ ppm	Propellants Nitrate <u>X</u>	
Water Level: <u>11.3</u> FT	TAL Metals <u>X</u>	QA Samples
Temperature: <u>10.6</u> °C	Pesticides/PCBs <u>X</u>	MS/MSD Yes / No NA
Sp. Conductance: <u>0.187</u> uMHOs	Cyanides	Duplicate ID NA
pH: <u>6.63</u> units	TOC	Equipment Rinse ID NA
Turbidity: <u>10</u> N.T.U.	Grain Size	<u>Trip Blank ID</u> <u>Trip Blank</u> NA

Sample Description
Clear water, no sheen, no odor,
Low Turb.
DO: 8.76

*Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
 Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: Shahram Taherinia (Please Print) Reviewed by: Sue Boles (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/23/05

Field Sampling Report

Location ID: LL5SW-011-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/18/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
		TEFLON DIPPER	Push Probe
Type/Construction			Hand Auger
			Plastic Liner
Miscellaneous	Well Purging Form Yes - No		Mattocks

Sample Collection: 0940 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: SURFACE FT (below surface) Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability
Sample: _____ ppm	Propellants		Nitrate	<input checked="" type="checkbox"/>
Water Level _____ FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples
Temperature <u>8.79</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD Yes / No <u>NA</u>
Sp. Conductance: <u>0.377</u> ms/cm ^{mHOs}	Cyanides	<input type="checkbox"/>		Duplicate ID <u>LL5SW-011-DUPNA</u>
pH <u>7.66</u> units	TOC			Equipment Rinse ID <u>NA</u>
Turbidity <u>Very Low</u> N.T.U.	Grain Size			Trip Blank ID <u>Trip Blank</u> <u>NA</u>

Sample Description

DO : 6.42 mg/l

Clear, No Odor, No Sheen, Very Low Turbidity

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: LL5SW-011-SW

Name: JOHN GENT (CEM-EL-ED)

Agency/Company: USACE - LOUISVILLE

Address: 600 DE MARIN WILKIE AVE JR DURA
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above As Listed

Logged By: NILESH SHRINGARPURE (Please Print) Reviewed by: ERIC FUIS (Please Print)

Signature: [Signature] Signature: [Signature] Date: 2/3/05

Field Sampling Report

Location ID: LL55w-012-5W

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 18 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
Type/Construction		<u>Teflon dipper</u> ✓	Push Probe	Plastic Liner
Miscellaneous	Well Purging Form Yes - No		Mattocks	

Sample Collection: 0910 hrs ^{0910 hrs} 11/18/04 Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: Surface FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: _____ ppm	VOC	✓	TPH GRO	Corrosivity		
	SVOC	✓	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	✓	Chromium +6	Ignitability		
Sample: _____ ppm	Propellants	✓	Nitrate			
Water Level _____ FT	TAL Metals	✓		QA Samples		
Temperature <u>9.97</u> °C	Pesticides/PCBs	✓		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.251</u> ^{µMHOs} / _{cm}	Cyanides			Duplicate ID		NA
pH <u>7.33</u> units	TOC			Equipment Rinse ID		NA
Turbidity <u>Very Low</u> N.T.U.	Grain Size			<u>Trip Blank ID</u>	<u>Trip Bknk</u>	NA

Sample Description

DO 6.79

Clear, No Odor, No Sheen, Very Low Turbidity

~ 5 ft of water in basement

Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: Michael Samelak (Please Print) Reviewed by: ERIC FUS (Please Print)

Signature: Michael Samelak Signature: [Signature] Date: 2/3/05

Field Sampling Report

Location ID: LL5 SW-013-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 11/18/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: _____ hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Estimated - Measured - Surveyed
 Sample Depth: _____ FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: _____ ppm	VOC	Corrosivity
	SVOC	Reactivity Sulfide/Cyanide
	Explosives	Ignitability
Sample: _____ ppm	Propellants	
	Nitrate	
Water Level _____ FT	TAL Metals	QA Samples
Temperature _____ °C	Pesticides/PCBs	MS/MSD Yes / No NA
Sp. Conductance: _____ uMHOs	Cyanides	Duplicate ID NA
pH _____ units	TOC	Equipment Rinse ID NA
Turbidity _____ N.T.U.	Grain Size	Trip Blank ID <u>TT</u> <u>Q3</u> NA

Sample Description

No water present
No sample collected

*Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Parozzo (Please Print)

Reviewed by: Sue Boles (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/23/05

Field Sampling Report

Location ID: 001
LL7 SW - 902 - SW
ENC
 Date: 11/22/04

Ravenna Army Ammunition Plant
 Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle <input checked="" type="checkbox"/>	Scoop <input type="checkbox"/> Trowel <input type="checkbox"/>
	Pump	Bacon Bomb <input type="checkbox"/>	Bowl <input type="checkbox"/> Hand Auger <input type="checkbox"/>
Type/Construction		<u>SILICONE TUBING</u> <input checked="" type="checkbox"/> <u>(PERISTALTIC PUMP)</u>	Push Probe <input type="checkbox"/> Plastic Liner <input type="checkbox"/>
Miscellaneous	Well Purging Form Yes - No		Mattocks <input type="checkbox"/>

Sample Collection: 1350 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: 20 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters	
PID / FID Readings: Background: _____ ppm	VOC <input checked="" type="checkbox"/>	TPH GRO <input type="checkbox"/>	
	SVOC <input checked="" type="checkbox"/>	TPH DRO <input type="checkbox"/>	
	Explosives <input checked="" type="checkbox"/>	Chromium +6 <input type="checkbox"/>	
Sample: _____ ppm	Propellants <input checked="" type="checkbox"/>	Nitrate <input checked="" type="checkbox"/>	
Water Level: <u>0.25</u> FT	TAL Metals <input checked="" type="checkbox"/>	QA Samples	
Temperature: <u>5.4</u> °C	Pesticides/PCBs <input checked="" type="checkbox"/>		MS/MSD Yes / No NA
Sp. Conductance: <u>0.180</u> uMHOs	Cyanides <input type="checkbox"/>		Duplicate ID NA
pH: <u>6.81</u> units	TOC <input type="checkbox"/>		Equipment Rinse ID NA
Turbidity: <u>543</u> N.T.U.	Grain Size <input type="checkbox"/>		<u>Trip Blank ID</u> <u>Trip Blank</u> NA

Sample Description

CLEAR
NO ODOR
NO SHEEN
LOW CLEAR TURBIDITY

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____

Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: EMILY ELLIS (Please Print) Reviewed by: Sue Boles (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 02/13/05

Field Sampling Report

Location ID: LL7SW-002-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/03/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop / Trowel
	Pump	Bacon Bomb	Bowl / Hand Auger
		<u>PERISTALTIC PUMP</u> ✓	Push Probe / Plastic Liner
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		NO Sediments <i>etc</i>

Sample Collection: 1100 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 14.82 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC ✓ X	TPH GRO
	SVOC X	TPH DRO
	Explosives X	Chromium +6
Sample: ppm	Propellants X	Nitrate X
Water Level: <u>14.82</u> FT	TAL Metals X	
Temperature: <u>9.9</u> °C	Pesticides/PCBs >	
Sp. Conductance: <u>0.211</u> uMHOs	Cyanides	
pH: <u>6.27</u> units	TOC	
Turbidity: <u>1</u> N.T.U.	Grain Size	
		QA Samples
		MS/MSD Yes / No NA
		Duplicate ID NA
		Equipment Rinse ID NA
		<u>Trip Blank ID</u> <u>Trip Blank</u> NA

Sample Description

Clear water, no odor
no sheen, no turbidity
DO: 9.60

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: [Signature] (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7sw - 002 - SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/07/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
		SCOOP	Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 0915 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken. Estimated - Measured - Surveyed
 Sample Depth: 14.82 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	* ⁵⁰⁶	TPH GRO		Corrosivity	
	SVOC	* ²⁴	TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	* ²⁴	Chromium +6		Ignitability	
Sample: ppm	Propellants	* ⁵⁰⁶	Nitrate <u>0.004</u>	X		
Water Level: FT	TAL Metals	* ²⁴			QA Samples	
Temperature: °C	Pesticides/PCBs	* ²⁴		MS/MSD	Yes / No	NA
Sp. Conductance: uMHOs	Cyanides			Duplicate ID		NA
pH: units	TOC			Equipment Rinse ID		NA
Turbidity: N.T.U.	Grain Size			Trip Blank ID	<u>TR-2</u>	NA

Sample Description
NO COLOR NO ODOR NO SHEEN

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

- RESAMPLE OF NITRATE ONLY

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: NILESH SHRINGARPURE (Please Print) Reviewed by: ERIC ELMS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL 7SW-003-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/2/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / <u>Sediments</u> / Sludge
Method	Bailer	Sample Bottle	Scoop / Trowel
	Pump	Bacon Bomb	Bowl / Hand Auger
		<u>PLASTIC PUMP</u> ✓	Push Probe / Plastic Liner
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		NO Sediments <i>FALSE</i>

Sample Collection: 1315 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map / Staked in Field
 Sample Depth: 15 FT (below surface) IFMI # of increments taken: _____ Estimated - Measured - Surveyed
 Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters			
PID / FID Readings: Background: _____ ppm	VOC	X	TPH GRO		Corrosivity			
	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	X	Chromium +6		Ignitability			
Sample: _____ ppm	Propellants	X	Nitrate	X	QA Samples MS/MSD: <u>Yes / No</u> NA Duplicate ID: <u>✓ LL7SW-003-SW</u> NA Equipment Rinse ID: _____ <u>NA</u> Trip Blank ID: <u>✓ Trip Blank</u> NA			
Water Level: <u>15</u> FT	TAL Metals	X						
Temperature: <u>11°</u> °C	Pesticides/PCBs	X						
Sp. Conductance: <u>0.101</u> uMHOs	Cyanides							
pH: <u>7.34</u> units	TOC							
Turbidity: <u>0.0</u> N.T.U.	Grain Size							

Sample Description
clear water, no odor, no sheen, no turbidity

DO = 9.01

Split Sample
 Split Sample ID: LL 7SW-003-SW *93*
 Name: John [unclear] (could be PD)
 Agency/Company: USACE Louisville
 Address: 600 W. MARTIN LUTHER KING JR. PLAZA
LOUISVILLE KY 40202
 QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above AS Listed
No split sample collected

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Sudheer Gubba (Please Print) Reviewed by: ERIC ELUIS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Location ID: LL7 SW - 004 - SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/02/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
			Push Probe
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: _____ hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken: _____

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: _____ FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	TPH GRO
	SVOC	TPH DRO
	Explosives	Chromium +6
Sample: ppm	Propellants	Nitrate
Water Level: FT	TAL Metals	QA Samples MS/MSD Yes / No NA Duplicate ID NA Equipment Rinse ID NA Trip Blank ID NA
Temperature: °C	Pesticides/PCBs	
Sp. Conductance: uMHOs	Cyanides	
pH: units	TOC	
Turbidity: N.T.U.	Grain Size	

Sample Description

*No Water Present
No Sample Collected*

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks

Parameters: Same as Above - As Listed

Logged By: James Panovro (Please Print)

Reviewed by: Sue Bales (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 02/23/05

Field Sampling Report

Location ID: LL 7SW-005-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/03/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop Trowel
	Pump	Bacon Bomb	Bowl Hand Auger
			Push Probe Plastic Liner
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: _____ hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Estimated - Measured - Surveyed

Sample Depth: _____ FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	TPH GRO
	SVOC	TPH DRØ
	Explosives	Chromium +6
Sample: ppm	Propellants	Nitrate
Water Level FT	TAL Metals	
Temperature °C	Pesticides/PCBs	
Sp. Conductance: µMHOs	Cyanides	
pH units	TOC	
Turbidity N.T.U.	Grain Size	
		QA Samples
		MS/MSD Yes / No NA
		Duplicate ID NA
		Equipment Rinse ID NA
		Trip Blank ID NA

Sample Description

No water present
No sample collected

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Fanorzo (Please Print)

Reviewed by: _____ (Please Print)

Signature:

Signature: _____ Date: _____

Field Sampling Report

Location ID: LL FSW-006-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/13/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	<u>Soils / Sediments / Sludge</u>	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
		<u>PERISTALTIC PUMP</u> ✓	Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No		<u>NO Sediments</u>	

Sample Collection: 2:30 hrs Sample Type: Composite - MI - (Grab)
 If MI, # of increments taken: _____ Location: (Plotted on Map - Staked in Field)
 Sample Depth: 10.8 FT (below surface) Decon: Dedicated- Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters			
PID / FID Readings: Background: _____ ppm	VOC	X	TPH GRO	/			
	SVOC	X	TPH DRO				
	Explosives	X	Chromium +6				
Sample: _____ ppm	Propellants	X	Nitrate	X	/		
Water Level <u>10.8</u> FT	TAL Metals	X	QA Samples				
Temperature <u>10.3</u> °C	Pesticides/PCBs	X	MS/MSD	Yes / No			NA
Sp. Conductance: <u>0.129</u> uMHOs	Cyanides		Duplicate ID				NA
pH <u>5.29</u> units	TOC		Equipment Rinse ID				NA
Turbidity <u>0.0</u> N.T.U.	Grain Size		<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA		

Sample Description

clear water, no odor, no sheen
no turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

 QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Shaham Taherinia (Please Print)

Reviewed by: FRK EWS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7sw - 006 - SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/07/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	✓ Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
		Scoop	✓ Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1650 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: 10.8 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	*	TPH GRO		Corrosivity	
	SVOC	*	TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	*	Chromium +6		Ignitability	
Sample: ppm	Propellants	*	Nitrate	X		
Water Level: FT	TAL Metals	*			QA Samples	
Temperature: °C	Pesticides/PCBs	*			MS/MSD	Yes / No NA
Sp. Conductance: uMHOs	Cyanides				Duplicate ID	NA
pH: units	TOC				Equipment Rinse ID	NA
Turbidity: N.T.U.	Grain Size				Trip Blank ID	NA

Sample Description
NO ODOR NO SHEEN

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

- RESAMPLE OF NITRATE ONLY

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: N Shringarpure (Please Print) Reviewed by: ERIC FUS (Please Print)

Signature: NILESH SHRINGARPURE Signature: ERF Date: 2/4/05

Field Sampling Report

Location ID: LL7SW-007-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/05/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
		PERASTATIC PUMP ✓	Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1010 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: 10.58 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	X	TPH GRO		Corrosivity	
	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	X	Chromium +6		Ignitability	
Sample: ppm	Propellants	X	Nitrate	X		
Water Level: <u>10.58</u> FT	TAL Metals	X			QA Samples	
Temperature: <u>9.7</u> °C	Pesticides/PCBs	X		MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.108</u> uMHOs	Cyanides			Duplicate ID		NA
pH: <u>6.20</u> units	TOC			Equipment Rinse ID		NA
Turbidity: <u>0.0</u> N.T.U.	Grain Size			Trip Blank ID	Trip Blank	NA

Sample Description

clear water, no odor, no sheen
no turbidity
DO: 8.21

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: [Signature] (Please Print)

Reviewed by: ERIC ELMS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: LL7dw-007-sw

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/07/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb		Bowl	Hand Auger
		<u>PERISTALTIC PUMP</u>	<input checked="" type="checkbox"/>	Push Probe	Plastic Liner
Type/Construction				Mattocks	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 0930 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: 10-50 FT (below surface) Decon: Dedicated - Each Day Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO		Corrosivity	
	SVOC	<input checked="" type="checkbox"/>	TPH DRO		Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6		Ignitability	
Sample: _____ ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate	<input checked="" type="checkbox"/>		
Water Level: _____ FT	TAL Metals	<input checked="" type="checkbox"/>			QA Samples	
Temperature: _____ °C	Pesticides/PCBs	<input checked="" type="checkbox"/>			MS/MSD	Yes / No NA
Sp. Conductance: _____ uMHOs	Cyanides				Duplicate ID	NA
pH: _____ units	TOC				Equipment Rinse ID	NA
Turbidity: _____ N.T.U.	Grain Size				Trip Blank ID	NA

Sample Description
NO COLOR NO ODDR NO SHEEN

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - AS LISTED

(- RESAMPLE OF NITRATE ONLY)

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: NILESH SHRINGARPURE (Please Print) Reviewed by: ERIC FUIS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/9/05

Field Sampling Report

Location ID: LL7SW-008-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/2/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
		PERISTALTIC PUMP ✓	Push Probe		Plastic Liner
Type/Construction			Mattocks		
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1515 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 Sample Depth: 10 FT (below surface) Decon: Dedicated - Each Day - Each Location
If MI # of increments taken: _____
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: _____ ppm	VOC	X	TPH GRO		Corrosivity		
	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6		Ignitability		
Sample: _____ ppm	Propellants	X	Nitrate	X			
Water Level: <u>10</u> FT	TAL Metals	X			QA Samples		
Temperature: <u>11.1</u> °C	Pesticides/PCBs	X			MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.098</u> uMHOs	Cyanides				Duplicate ID		NA
pH: <u>7.14</u> units	TOC				Equipment Rinse ID		NA
Turbidity: <u>0.0</u> N.T.U.	Grain Size				<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description
clear water, NO odor, NO sheen, NO turbidity
DO: 8.96
Flowing water.

*Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____

Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - AS LISTED

Logged By: Sudheer Gubba (Please Print) Reviewed by: ERIC ELMS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL7SW-009-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/2/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
		<u>Peristaltic Pump</u> ✓	Push Probe
Type/Construction		Mattocks	Trowel
Miscellaneous	Well Purging Form Yes - No		Hand Auger Plastic Liner

Sample Collection: 1450 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field SG
 Sample Depth: 8 FT (below surface) Decon: Dedicated - Each Day - Each Location
If MI, # of increments taken: _____
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: ppm	VOC	X	TPH GRO		Corrosivity		
	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6		Ignitability		
Sample: ppm	Propellants	X	Nitrate	X			
Water Level <u>8</u> FT	TAL Metals	X			QA Samples		
Temperature <u>10.3</u> °C	Pesticides/PCBs	X			MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.071</u> uMHOs	Cyanides				Duplicate ID		NA
pH <u>7.1</u> units	TOC				Equipment Rinse ID		NA
Turbidity <u>39</u> N.T.U.	Grain Size				<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

Sample Description
Clear water, No odors, No Sheen
low turbidity
DC-S-5
Still water

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

 QA/QC Provided: MS/MSD - Duplicate Trip Blanks Field Blanks
 Parameters: Same as Above As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Sudheer Gubba (Please Print) Reviewed by: Eric Fuis (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/1/05

Field Sampling Report

Location ID: LL75W-010-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/02/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop Trowel
	Pump	Bacon Bomb	Bowl Hand Auger
			Push Probe Plastic Liner
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: NA hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: NA FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	TPH GRO
	SVOC	TPH DRO
	Explosives	Chromium +6
Sample: ppm	Propellants	Nitrate
Water Level: FT	TAL Metals	QA Samples MS/MSD Yes / No NA Duplicate ID NA Equipment Rinse ID NA Trip Blank ID NA
Temperature: °C	Pesticides/PCBs	
Sp. Conductance: uMHOs	Cyanides	
pH: units	TOC	
Turbidity: N.T.U.	Grain Size	

Sample Description

No Water Present
No Sample Collected

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Hanover (Please Print)

Reviewed by: Sue Bates (Please Print)

Signature:

Signature: Date: 02/23/05

Field Sampling Report

Location ID: LL75W-011-5W

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 10 Nov 04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	<input checked="" type="checkbox"/>	Scoop	Trowel
	Pump	Bacon Bomb	<input type="checkbox"/>	Bowl	Hand Auger
				Push Probe	Plastic Liner
Type/Construction				Mattocks	
Miscellaneous	Well Purging Form Yes - No				

Sample Collection: 1400 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed
 Sample Depth: Surface FT (below surface) Decon: Dedicated Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO		Corrosivity		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	<input checked="" type="checkbox"/>	Chromium +6		Ignitability		
Sample: ppm	Propellants	<input checked="" type="checkbox"/>	Nitrate	<input checked="" type="checkbox"/>	QA Samples		
Water Level <u>~ 6</u> FT	TAL Metals	<input checked="" type="checkbox"/>			MS/MSD Yes / No NA		
Temperature <u>9.8</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>			Duplicate ID NA		
Sp. Conductance: <u>.091</u> uMHOs	Cyanides				Equipment Rinse ID NA		
pH <u>6.06</u> units	TOC				Trip Blank ID <u>Trip Blank</u> NA		
Turbidity <u>Low</u> N.T.U.	Grain Size						

Sample Description

Clear, No Odor, No Sheen, Low Turbidity

Sample Collected from sump in Bldg B34

DO: 6.70

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip-Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Michael Samelak (Please Print)

Reviewed by: ERIC FUS (Please Print)

Signature: Michael Samelak

Signature: Eric Fus Date: 2/4/05

Field Sampling Report

Location ID: LL85W-001-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/08/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
			Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: _____ hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Sample Depth: _____ FT (below surface) Decon: Dedicated - Each Day - Each Location
 Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters	
PID / FID Readings: Background: ppm	VOC	TPH GRO	Corrosivity
	SVOC	TPH DR0	Reactivity Sulfide/Cyanide
	Explosives	Chromium +6	Ignitability
Sample: ppm	Propellants	Nitrate	
Water Level FT	TAL Metals	QA Samples	
Temperature °C	Pesticides/PCBs	MS/MSD	Yes / No NA
Sp. Conductance: uMHOs	Cyanides	Duplicate ID	NA
pH units	TOC	Equipment Rinse ID	NA
Turbidity N.T.U.	Grain Size	Trip Blank ID	NA

Sample Description

No Water
No sample collected

*Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture*

*Water sample description should include:
Color Odor Sheen Turbidity*

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Kaarzo (Please Print) Reviewed by: Sue Boles (Please Print)

Signature: [Signature] Signature: [Signature] Date: 02/23/05

Field Sampling Report

Location ID: LL85W-002-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/08/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
Type/Construction		Pump <input checked="" type="checkbox"/>	Hand Auger
Miscellaneous	Well Purging Form Yes - No		Plastic Liner
			Mattocks

Sample Collection: 1450 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: NA Estimated - Measured - Surveyed
 Sample Depth: 5.32 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters
PID / FID Readings:	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity
Background: ppm	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide
<u>DO</u> <u>9.67</u>	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability
Sample: ppm	Propellants <u>Yes</u>	<input checked="" type="checkbox"/>	Nitrate	<input checked="" type="checkbox"/>
Water Level: <u>5.32</u> FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples
Temperature: <u>9.42</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD Yes / No NA
Sp. Conductance: <u>0.427</u> uMHOs	Cyanides			Duplicate ID NA
pH: <u>7.47</u> units	TOC			Equipment Rinse ID NA
Turbidity: <u>0</u> N.T.U.	Grain Size			<u>Trip Blank ID</u> <u>Trip Blank</u> NA

Sample Description

No odor, No color, No sheen,
No turbidity

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: Vijay Alluri (Please Print) Reviewed by: ERIC EWIS (Please Print)

Signature: vijay Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL8SW-003-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/08/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
Type/Construction		Pump <input checked="" type="checkbox"/>	Push Probe
Miscellaneous	Well Purging Form Yes - No		Plastic Liner
			Mattocks

Sample Collection: MSD hrs 1340 Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: NA Estimated - Measured - Surveyed
 Sample Depth: 5.98 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings:	VOC <input checked="" type="checkbox"/>	Corrosivity
Background: ppm	SVOC <input checked="" type="checkbox"/>	Reactivity Sulfide/Cyanide
DO <u>9.51</u>	Explosives <input checked="" type="checkbox"/>	Ignitability
Sample: ppm	Propellants	
Water Level <u>5.98</u> FT	TAL Metals <input checked="" type="checkbox"/>	QA Samples
Temperature <u>9.34</u> °C	Pesticides/PCBs <input checked="" type="checkbox"/>	MS/MSD <u>93</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No NA
Sp. Conductance: <u>0.435</u> uMHOs	Cyanides	Duplicate ID <u>LL8SW-003-DUP</u> NA
pH <u>7.45</u> units	TOC	Equipment Rinse ID <u>NA</u>
Turbidity <u>0</u> N.T.U.	Grain Size	Trip Blank ID <u>Trip Blank</u> <u>NA</u>

Sample Description
No color, No odor, No Sheen,
No Turbidity

Split Sample

Split Sample ID: LL8SW-003-SW

Name: JEAN JEAN (CALLER AL PD)
 Agency/Company: LEACE - LOUISVILLE
 Address: 600 DE MARTIN WITHRIL KING JR PARK
LOUISVILLE KY 40202

QA/QC Provided: MS/MSD Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above As Listed

Soil sample description should include:
 Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
 Color Odor Sheen Turbidity

Logged By: James P... (Please Print) Reviewed by: ERIC EWS (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 2/4/05

Location ID: LL 8 SW - 004 - SW
 Date: 12/03/04

Field Sampling Report

Ravenna Army Ammunition Plant
 Characterization of 14 RVAAP AOCs

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
		<u>PERISTALTIC PUMP</u>	Push Probe
Type/Construction			Trowel
Miscellaneous	Well Purging Form Yes - No		Hand Auger
			Plastic Liner
			Mattocks

Sample Collection: 1100 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map Staked in Field
 If MI, # of increments taken: _____
 Sample Depth: 6.84 FT (below surface) Decon: Dedicated - Each Day - Each Location Estimated - Measured - Surveyed

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters
PID / FID Readings: Background: ppm	VOC	X	TPH GRO	Corrosivity
	SVOC	X	TPH DRO	Reactivity Sulfide/Cyanide
	Explosives	X	Chromium +6	Ignitability
Sample: ppm	Propellants		Nitrate	X
Water Level: <u>6.84</u> FT	TAL Metals	X		
Temperature: <u>9.17</u> °C	Pesticides/PCBs	X		
Sp. Conductance: <u>0.414</u> uMHOs	Cyanides			
pH: <u>7.50</u> units	TOC			
Turbidity: <u>0.0</u> N.T.U.	Grain Size			
				QA Samples
				MS/MSD Yes / No NA
				Duplicate ID NA
				Equipment Rinse ID NA
				<u>Trip Blank ID</u> <u>Trip Blank</u> NA

Sample Description

clear water, no odor
no sheen, no turbidity
DO: 9.99

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

 QA/QC Provided: MS/MSD - Duplicate - Top Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Shankam Taherinia (Please Print)

Signature: [Signature]

Reviewed by: ERIC BUS (Please Print)

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL8 SW - 005 - SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/08/04

Sampling Information

Source	Groundwater / Product	<u>Surface Water</u>	Soils / ^{PAE}Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop X Trowel ^{PAE}
	Pump	Bacon Bomb	Bowl Hand Auger
		PERISTALTIC PUMP	Push Probe Plastic Liner
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		

Sample Collection: 0940 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: Estimated - Measured - Surveyed

Sample Depth: 7.01 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters	
PID / FID Readings: Background: ppm	VOC <input checked="" type="checkbox"/>	Corrosivity	
	SVOC <input checked="" type="checkbox"/>	Reactivity Sulfide/Cyanide	
	Explosives <input checked="" type="checkbox"/>	Ignitability	
Sample: ppm	TPH GRO		
	TPH DRO		
	Chromium +6		
	Propellants <input checked="" type="checkbox"/>	Nitrate <input checked="" type="checkbox"/>	
Water Level <u>7.01</u> FT	TAL Metals <input checked="" type="checkbox"/>	QA Samples	
Temperature <u>9.00</u> °C	Pesticides/PCBs <input checked="" type="checkbox"/>	MS/MSD	Yes / No NA
Sp. Conductance: <u>0.423</u> uMHOs	Cyanides	Duplicate ID	NA
pH <u>7.45</u> units	TOC	Equipment Rinse ID	NA
Turbidity <u>0.0</u> NTU	Grain Size	<u>Trip Blank ID</u>	<u>Trip Blank</u> NA

Sample Description

Clear water, NO odor
NO sheen, NO turbidity
NO. 10.57

Split Sample

Split Sample ID:

Name:
Agency/Company:
Address:

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Shahram Taheri (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: LL85W-006-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/09/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop Trowel
	Pump	Bacon Bomb	Bowl Hand Auger
Type/Construction			Push Probe Plastic Liner
Miscellaneous	Well Purging Form Yes - No		Mattocks

Sample Collection: _____ hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Estimated - Measured - Surveyed

Sample Depth: _____ FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / FID Readings: Background: ppm	VOC	TPH GRO
	SVOC	TPH DRO
	Explosives	Chromium +6
Sample: ppm	Propellants	Nitrate
Water Level: FT	TAL Metals	QA Samples MS/MSD Yes / No NA Duplicate ID NA Equipment Rinse ID NA Trip Blank ID NA
Temperature: °C	Pesticides/PCBs	
Sp. Conductance: uMHOs	Cyanides	
pH: units	TOC	
Turbidity: N.T.U.	Grain Size	

Sample Description

No Water
No Sample Collected

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____
 Name: _____
 Agency/Company: _____
 Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Logged By: James Panora (Please Print)

Signature: James Panora

Reviewed by: Sue Boles (Please Print)

Signature: Sue Boles Date: 02/23/05

0

Location ID: LL88W-007-SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/09/04

Sampling Information

Source	Groundwater / Product		Surface Water		Soils / Sediments / Sludge		
Method	Bailer		Sample Bottle		Scoop		Trowel
	Pump		Bacon Bomb		Bowl		Hand Auger
			<u>PERISTALTIC PUMP</u>	<input checked="" type="checkbox"/>	Push Probe		Plastic Liner
Type/Construction					Mattocks		
Miscellaneous	Well Purging Form Yes - No						

Sample Collection: 1030 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - Measured - Surveyed

Sample Depth: 5.29 FT (below surface) Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters				Other Parameters		
PID / FID Readings: Background: ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO		Corrosivity		
	SVOC	<input checked="" type="checkbox"/>	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	<input checked="" type="checkbox"/>	Chromium +6		Ignitability		
Sample: ppm	Propellants		Nitrate	<input checked="" type="checkbox"/>			
Water Level: <u>5.29</u> FT	TAL Metals	<input checked="" type="checkbox"/>			QA Samples		
Temperature: <u>6.8</u> 10.0 °C	Pesticides/PCBs	<input checked="" type="checkbox"/>			MS/MSD	Yes / No	NA
Sp. Conductance: <u>0.353</u> uMHOs	Cyanides				Duplicate ID		NA
pH: <u>6.46</u> units	TOC				Equipment Rinse ID		NA
Turbidity: <u>0</u> N.T.U.	Grain Size				<u>Trip Blank ID</u>	<u>Trip Blank</u>	NA

DO 10.10 Sample Description

CLEAR, NO ODOOR, NO SILEN, NO TURBIDITY

Soil sample description should include:
Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:
Color Odor Sheen Turbidity

Split Sample

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

QA/QC Provided: MS/MSD - Duplicate Trip Blanks Field Blanks
 Parameters: Same as Above As Listed

Logged By: James Parozzo (Please Print) Reviewed by: ERIC EUS (Please Print)

Signature: [Signature] Signature: [Signature] Date: 2/4/05

LL8 SW - 008 - SW

Field Sampling Report

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Location ID: ~~1-8sd-008-sd~~ ^{FILE}

Date: 12/09/04

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop
	Pump	Bacon Bomb	Bowl
		PERISTALTIC PUMP ✓	Push Probe
Type/Construction			Mattocks
Miscellaneous	Well Purging Form Yes - No		NO sediments ^{FILE}

Sample Collection: 0430 hrs

Sample Type: Composite - MI - Grab
If MI, # of increments taken:

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 5.61 FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters		
PID / FID Readings: Background: ppm	VOC	✓	TPH GRO	Corrosivity		
	SVOC	✓	TPH DRO	Reactivity Sulfide/Cyanide		
	Explosives	✓	Chromium +6	Ignitability		
Sample: ppm	Propellants		Nitrate	✓		
Water Level: 5.61 FT	TAL Metals	✓				
Temperature: 7.86 °C	Pesticides/PCBs	✓				
Sp. Conductance: 0.408 uMHOs	Cyanides					
pH: 5.86 units	TOC					
Turbidity: 0.0 N.T.U.	Grain Size					

Sample Description

Clear water, NO odors
 NO sheen, low turbidity
 DO: 10.81

Split Sample

Split Sample ID:
 Name:
 Agency/Company:
 Address:
 QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
 Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Logged By: Shalram Tahwiniq (Please Print)

Reviewed by: ERIC ELLIS (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 2/4/05

Field Sampling Report

Location ID: 118sw-009-SW

Ravenna Army Ammunition Plant
Characterization of 14 RVAAP AOCs

Date: 12/10/04

Sampling Information

Source	Groundwater / Product	SEWER Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
		PERMANENT PUMP	Push Probe	Plastic Liner
Type/Construction			Mattocks	
Miscellaneous	Well Purging Form Yes - No			

Sample Collection: 0900 hrs

Sample Type: Composite - MI Grab
If MI, # of increments taken: _____

Location: Plotted on Map - Staked in Field
Estimated - Measured - Surveyed

Sample Depth: 6'09" FT (below surface)

Decon: Dedicated - Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters			Other Parameters	
PID / FID Readings: Background: _____ ppm	VOC	<input checked="" type="checkbox"/>	TPH GRO	Corrosivity	
	SVOC	<input checked="" type="checkbox"/>	TPH DRO	Reactivity Sulfide/Cyanide	
	Explosives	<input checked="" type="checkbox"/>	Chromium +6	Ignitability	
Sample: _____ ppm	Propellants <u>92</u>	<input checked="" type="checkbox"/>	Nitrate		
Water Level _____ FT	TAL Metals	<input checked="" type="checkbox"/>		QA Samples	
Temperature <u>4.6</u> °C	Pesticides/PCBs	<input checked="" type="checkbox"/>		MS/MSD	Yes / No NA
Sp. Conductance: <u>0.317</u> uMHOs	Cyanides			Duplicate ID	NA
pH <u>6.35</u> units	TOC			Equipment Rinse ID	NA
Turbidity <u>8</u> N.T.U.	Grain Size			Trip Blank ID <u>Trip Blank</u>	NA

DO 9.95 mg/L

Sample Description
CLEAR WATER NO ODOR NO SHEEN,

Split Sample

Split Sample ID: _____

Name: _____
Agency/Company: _____
Address: _____

QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks
Parameters: Same as Above - As Listed

Soil sample description should include:

Munsell Color Odor Staining Texture Sorting Plasticity Moisture

Water sample description should include:

Color Odor Sheen Turbidity

Prepared By: NILESH SHRINGARPURE (Please Print)

Reviewed by: ERIC EWIS (Please Print)

Signature: [Signature] Date: 2/4/05