Accession Number:	**A1009140001**
Reference Number:	
Age: 64	*Sex:* Male
Date of Birth:	05/21/1946
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0760 Chlorinated Pesticides - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
DDE	**Detected** 0.49	12.10	**Detected** 74.3	1860
DDT	Not Detected	0.13	N/A	19.5
Dieldrin	Not Detected	0.14	N/A	19.0
Heptachlor Epoxide	Not Detected	0.13	N/A	18.9
Hexachlorobenzene (HCB)	Not Detected	0.19	N/A	28.9
Mirex	Not Detected	0.09	N/A	13.2
Oxychlordane	Not Detected	0.27	N/A	37.7
trans-Nonachlor	**Detected** 0.05 - 0.15*	0.47	**Detected** 7.6 - 22.8*	68.3

Cholesterol	188		<= 200	mg/dL
Triglycerides	226	**H**	35 - 160	mg/dL
Total Lipids (calc.)***	7			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

Finding a measurable amount of one or more chlorinated pesticides in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of chlorinated pesticides than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140001**
Reference Number:	
Age: 64	*Sex:* Male
Date of Birth:	05/21/1946
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation

0761 Polychlorinated Biphenyls (PCBs) - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
Dioxin-like Polychlorinated Biphenyls				
PCB 118	Not Detected	0.22	N/A	31.3
PCB 126	Not Detected	0.00048	N/A	0.07
PCB 156	Not Detected	0.10	N/A	15.3
PCB 169	Not Detected	0.00027	N/A	0.04
Non-Dioxin-like Polychlorinated Biphenyls				
PCB 74	Not Detected	0.15	N/A	22.3
PCB 138	Not Detected	0.48	N/A	75.3
PCB 153	**Detected** 0.1 - 0.32*	0.62	**Detected** 15.2 - 48.5*	97.1
PCB 180	**Detected** 0.08 - 0.26*	0.53	**Detected** 12.1 - 39.4*	81.5

Cholesterol	188		<= 200	mg/dL
Triglycerides	226	**H**	35 - 160	mg/dL
Total Lipids (calc.)***	7			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009

Finding a measurable amount of one or more polychlorinated biphenyls in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of polychlorinated biphenyls than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number: **A1009140002**
Reference Number:

Age: 61 *Sex:* Female
Date of Birth: 07/03/1949
Date Collected: 9/11/10
Date Received: 9/14/10
Report Date: 9/21/10
Telephone:
Fax:
Reprinted:
Comment:

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0760 Chlorinated Pesticides - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
DDE	**Detected** 0.86	12.10	**Detected** 111.4	1860
DDT	Not Detected	0.13	N/A	19.5
Dieldrin	Not Detected	0.14	N/A	19.0
Heptachlor Epoxide	Not Detected	0.13	N/A	18.9
Hexachlorobenzene (HCB)	Not Detected	0.19	N/A	28.9
Mirex	Not Detected	0.09	N/A	13.2
Oxychlordane	Not Detected	0.27	N/A	37.7
trans-Nonachlor	**Detected** 0.17	0.47	**Detected** 22.0	68.3

Cholesterol	194		<= 200	mg/dL
Triglycerides	306	**H**	35 - 160	mg/dL
Total Lipids (calc.)***	8			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

Finding a measurable amount of one or more chlorinated pesticides in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of chlorinated pesticides than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140003**
Reference Number:	
Age: 77	*Sex:* Female
Date of Birth:	05/18/1933
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0760 Chlorinated Pesticides - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
DDE	**Detected** 2.12	12.10	**Detected** 394.8	1860
DDT	Not Detected	0.13	N/A	19.5
Dieldrin	Not Detected	0.14	N/A	19.0
Heptachlor Epoxide	Not Detected	0.13	N/A	18.9
Hexachlorobenzene (HCB)	Not Detected	0.19	N/A	28.9
Mirex	Not Detected	0.09	N/A	13.2
Oxychlordane	Not Detected	0.27	N/A	37.7
trans-Nonachlor	**Detected** 0.05 - 0.15*	0.47	**Detected** 9.3 - 27.9*	68.3

Cholesterol	206	**H**	<= 200	mg/dL
Triglycerides	119		35 - 160	mg/dL
Total Lipids (calc.)***	5			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

Finding a measurable amount of one or more chlorinated pesticides in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of chlorinated pesticides than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140003**
Reference Number:	
Age: 77	*Sex:* Female
Date of Birth:	05/18/1933
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation

0761 Polychlorinated Biphenyls (PCBs) - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
Dioxin-like Polychlorinated Biphenyls				
PCB 118	Not Detected	0.22	N/A	31.3
PCB 126	Not Detected	0.00048	N/A	0.07
PCB 156	Not Detected	0.10	N/A	15.3
PCB 169	Not Detected	0.00027	N/A	0.04
Non-Dioxin-like Polychlorinated Biphenyls				
PCB 74	Not Detected	0.15	N/A	22.3
PCB 138	**Detected** 0.21	0.48	**Detected** 39.1	75.3
PCB 153	**Detected** 0.1 - 0.32*	0.62	**Detected** 18.6 - 59.6*	97.1
PCB 180	**Detected** 0.29	0.53	**Detected** 54.0	81.5

Cholesterol	206	**H**	<= 200	mg/dL
Triglycerides	119		35 - 160	mg/dL
Total Lipids (calc.)***	5			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009

Finding a measurable amount of one or more polychlorinated biphenyls in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of polychlorinated biphenyls than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140004**
Reference Number:	
Age: 71	*Sex:* Male
Date of Birth:	05/29/1939
Date Collected:	9/12/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0760 Chlorinated Pesticides - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
DDE	**Detected** 0.57	12.10	**Detected** 134.6	1860
DDT	Not Detected	0.13	N/A	19.5
Dieldrin	Not Detected	0.14	N/A	19.0
Heptachlor Epoxide	Not Detected	0.13	N/A	18.9
Hexachlorobenzene (HCB)	Not Detected	0.19	N/A	28.9
Mirex	Not Detected	0.09	N/A	13.2
Oxychlordane	Not Detected	0.27	N/A	37.7
trans-Nonachlor	**Detected** 0.18	0.47	**Detected** 42.5	68.3

Cholesterol	132	<= 200	mg/dL
Triglycerides	96	35 - 160	mg/dL
Total Lipids (calc.)***	4		g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

Finding a measurable amount of one or more chlorinated pesticides in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of chlorinated pesticides than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140004**
Reference Number:	
Age: 71	*Sex:* Male
Date of Birth:	05/29/1939
Date Collected:	9/12/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0761 Polychlorinated Biphenyls (PCBs) - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)		Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
Dioxin-like Polychlorinated Biphenyls					
PCB 118	Not Detected	0.22		N/A	31.3
PCB 126	Not Detected	0.00048		N/A	0.07
PCB 156	Not Detected	0.10		N/A	15.3
PCB 169	Not Detected	0.00027		N/A	0.04
Non-Dioxin-like Polychlorinated Biphenyls					
PCB 74	Not Detected	0.15		N/A	22.3
PCB 138	Not Detected	0.48		N/A	75.3
PCB 153	**Detected** 0.1 - 0.32*	0.62		**Detected** 23.6 - 75.6*	97.1
PCB 180	**Detected** 0.08 - 0.26*	0.53		**Detected** 18.9 - 61.4*	81.5
Cholesterol	132	<= 200	mg/dL		
Triglycerides	96	35 - 160	mg/dL		
Total Lipids (calc.)***	4		g/L		

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009

Finding a measurable amount of one or more polychlorinated biphenyls in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of polychlorinated biphenyls than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140005**
Reference Number:	
Age: 57	*Sex:* Female
Date of Birth:	08/22/1953
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0760 Chlorinated Pesticides - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
DDE	**Detected** 4.63	12.10	**Detected** 587.8	1860
DDT	Not Detected	0.13	N/A	19.5
Dieldrin	Not Detected	0.14	N/A	19.0
Heptachlor Epoxide	Not Detected	0.13	N/A	18.9
Hexachlorobenzene (HCB)	Not Detected	0.19	N/A	28.9
Mirex	Not Detected	0.09	N/A	13.2
Oxychlordane	Not Detected	0.27	N/A	37.7
trans-Nonachlor	**Detected** 0.25	0.47	**Detected** 31.7	68.3

Cholesterol	260	**H**	<= 200	mg/dL
Triglycerides	262	**H**	35 - 160	mg/dL
Total Lipids (calc.)***	8			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

Finding a measurable amount of one or more chlorinated pesticides in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of chlorinated pesticides than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009140005**
Reference Number:	
Age: 57	*Sex:* Female
Date of Birth:	08/22/1953
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0761 Polychlorinated Biphenyls (PCBs) - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
Dioxin-like Polychlorinated Biphenyls				
PCB 118	**Detected** 0.09 - 0.29*	0.22	**Detected** 11.4 - 36.8*	31.3
PCB 126	Not Detected	0.00048	N/A	0.07
PCB 156	Not Detected	0.10	N/A	15.3
PCB 169	Not Detected	0.00027	N/A	0.04
Non-Dioxin-like Polychlorinated Biphenyls				
PCB 74	**Detected** 0.02 - 0.07*	0.15	**Detected** 2.5 - 8.9*	22.3
PCB 138	**Detected** 0.43	0.48	**Detected** 54.6	75.3
PCB 153	**Detected** 0.43	0.62	**Detected** 54.6	97.1
PCB 180	**Detected** 0.08 - 0.26*	0.53	**Detected** 10.2 - 33.0*	81.5

Cholesterol	260	**H**	<= 200	mg/dL
Triglycerides	262	**H**	35 - 160	mg/dL
Total Lipids (calc.)***	8			g/L

Accession Number:	**A1009140005**
Reference Number:	
Patient:	Dorothy Gephardt
Age: 57	*Sex:* Female
Date of Birth:	08/22/1953
Date Collected:	9/11/10
Date Received:	9/14/10
Report Date:	9/21/10
Telephone:	(727) 512-7272
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
P.O. Box 20914
Tampa, FL 33622

0761 Polychlorinated Biphenyls (PCBs) - Serum

Methodology: Gas Chromatography/Mass Spectrometry

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009

Finding a measurable amount of one or more polychlorinated biphenyls in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of polychlorinated biphenyls than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009240025**
Reference Number:	
Age: 53	*Sex:* Female
Date of Birth:	09/06/1957
Date Collected:	9/22/10
Date Received:	9/24/10
Report Date:	9/29/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation
Susie Foundation
400 Avenue K SE
Building #2
Winter Haven, FL 33880

0760 Chlorinated Pesticides - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
DDE	Not Detected	12.10	N/A	1860
DDT	Not Detected	0.13	N/A	19.5
Dieldrin	Not Detected	0.14	N/A	19.0
Heptachlor Epoxide	Not Detected	0.13	N/A	18.9
Hexachlorobenzene (HCB)	Not Detected	0.19	N/A	28.9
Mirex	Not Detected	0.09	N/A	13.2
Oxychlordane	Not Detected	0.27	N/A	37.7
trans-Nonachlor	Not Detected	0.47	N/A	68.3

Cholesterol	153		<= 200	mg/dL
Triglycerides	204	H	35 - 160	mg/dL
Total Lipids (calc.)***	6			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

Finding a measurable amount of one or more chlorinated pesticides in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of chlorinated pesticides than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009240025**
Reference Number:	
Age: 53	*Sex:* Female
Date of Birth:	09/06/1957
Date Collected:	9/22/10
Date Received:	9/24/10
Report Date:	9/29/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation

0761 Polychlorinated Biphenyls (PCBs) - Serum

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)	Lipid Adjusted Results (ng/g lipid)	95th Percentile** (ng/g lipid)
Dioxin-like Polychlorinated Biphenyls				
PCB 118	Not Detected	0.22	N/A	31.3
PCB 126	Not Detected	0.00048	N/A	0.07
PCB 156	Not Detected	0.10	N/A	15.3
PCB 169	Not Detected	0.00027	N/A	0.04
Non-Dioxin-like Polychlorinated Biphenyls				
PCB 74	Not Detected	0.15	N/A	22.3
PCB 138	Not Detected	0.48	N/A	75.3
PCB 153	Not Detected	0.62	N/A	97.1
PCB 180	Not Detected	0.53	N/A	81.5

Cholesterol	153		<= 200	mg/dL
Triglycerides	204	H	35 - 160	mg/dL
Total Lipids (calc.)***	6			g/L

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009

Finding a measurable amount of one or more polychlorinated biphenyls in serum does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed. These levels provide physicians with a reference range so that they can determine whether or not people have been exposed to higher levels of polychlorinated biphenyls than levels found in the general population.
--Third National Report on Human Exposure to Environmental Chemicals, CDC 2005

Accession Number:	**A1009240025**
Reference Number:	
Age: 53	*Sex:* Female
Date of Birth:	09/06/1957
Date Collected:	9/22/10
Date Received:	9/24/10
Report Date:	10/4/10
Telephone:	
Fax:	
Reprinted:	
Comment:	**FAX Results**

Ordering Physician:

Susie Funk/Chris Nidel KRF Foundation

0762 Volatile Solvents - Whole Blood

Methodology: Gas Chromatography/Mass Spectrometry

	Results (ppb)	95th Percentile** (ppb)
Benzene	Not Detected	0.26
Ethylbenzene	**0.51**	0.11
Styrene	Not Detected	0.12
Toluene	Not Detected	0.68
m,p-Xylene	**Detected** 0.4 - 1.3*	0.34
o-Xylene	Not Detected	0.09

*Patient value falls in this range.

**95th percentile values are from the NHANES Fourth National Report on Human Exposure to Environmental Chemicals, CDC 2009.

No national reference ranges are established for hexane, 2- and 3-methylpentane and isooctane. Quintile ranges are based on patient samples analyzed at Metametrix.

	Results (ppb)	Percentile Ranking by Quintile (1st, 2nd, 3rd, 4th, 5th; 20%, 40%, 60%, 80%)	95th Percentile (ppb)
Hexane	87.67	200.00	<= 200.00
2-Methylpentane	23.6	68.0	<= 84.0
3-Methylpentane	20.7	103.0	<= 128.0
Isooctane	6.72	14.20	<= 30.60

Finding a measurable amount of one or more Volatile Solvents in whole blood does not mean that the level of one or more of these causes an adverse health effect. Whether the concentrations reported here are a cause for health concern is not yet known; more research is needed.

TEST RESULTS
VOLATILE ORGANICS ANALYSIS DATA SHEET
SAMPLE IDENTIFICATION DWSRD-13
ACETONE LEVELS

9/15/2005	ND
12/12/2005	ND
3/29/2006	ND
6/16/2006	ND
9/11/2006	Not Listed
12/20/2006	Not Listed
3/27/2007	Not Listed
7/11/2007	ND
9/27/2007	3.1 B
1/15/2008	ND
3/28/2008	2.7 J
6/26/2008	3.4 J
12/18/2008	No Data
3/23/2009	ND
6/19/2009	ND
10/2/2009	No Data
12/10/2009	R

ND - Not detected
No Data - No reading provided
Not Listed - Did not list Acetone as a tested chemical
R - Data was rejected as unusable (low response factor)
J - Reported value is estimated
B - Not detected substantially above the level reported in quality control blank samples

MCHD – SIE 03 March 2011

MEMORANDUM FOR RECORD

SUBJECT: Fort Detrick Restoration Advisory Board (RAB) Meeting Summary, 23 February, 2011

1. Summary Contents.

Items addressed at the meeting are listed below, with corresponding section numbers indicated in the column on the right.

Please note: PowerPoint presentations were utilized during the RAB meeting. A copy of the presentations are attached to these minutes and incorporated into these minutes by this reference.

Text contained within brackets [ ] has been added for clarification purposes.

2. Attendees.

Members Present:
Mr. Robert Craig, Chief, Environmental Management Office, Acting Co-Chair
Dr. Gary Pauly, Community RAB Member, Co-Chair
Mr. Joseph Gortva, Environmental Restoration Program Manager
Mr. John Fairbank, Maryland Department of the Environment
Mr. Rob Thomson, U.S. Environmental Protection Agency, Region III
Ms. Alicia Evangelista, Frederick County Health Department
Ms. Laurie Haines, Army Environmental Command
Dr. Henry Erbes, Community RAB Member
Mr. Cliff Harbaugh, Community RAB Member
Ms. Karen Harbaugh, Community RAB Member
Mr. Barry Kissin, Community RAB Member
Ms. Shelley Luehring, Community RAB Member

Others Present:
Mr. Gary Zolyak, USAG/OSJH (Ft. Detrick Environmental Attorney)
Mr. A. Lynn Hoch, Ft. Detrick
Mr. William Hudson, U.S. Environmental Protection Agency, Region III
Mr. Keith Hoddinott, USAPHC
Mr. Randal Curtis, US Army Corps of Engineers
Mr. Tim Llewellyn, ARCADIS
Mr. John Cherry, ARCADIS
Mr. Jeffrey Parks, Shaw Environmental
Ms. Ashley Roeske, US Army Corps of Engineers
Ms. Elizabeth Hinson, One Stop Environmental
Ms. Katrina Harris, Bridge Consulting Corp.
Ms. Francesca Colantuno, Total Health Concern
Mr. Barbara Whitman, Community Observer
Mr. Eric Cross, Kristen Renee Foundation
Mr. James Krantz, Community Observer
Mr. Patrick Burke, Vietnam Veterans
Dr. R. Lipsey, Toxicologist, Consultant for Kristen Renee Foundation
Ms. Pat Wolfe, Community Observer
Mr. Jerry Wolfe, Community Observer
Mr. Dave Gudes, Community Observer
Ms. Laura Pfeiffer, Frederick County
Ms. Sylvia Chaney, Community Observer
Mr. Dewey Chaney, Community Observer
Mr. Rod Erg, Vietnam Veterans
Ms. Violet Rice, Community Observer
Mr. Lou Krieger, Vietnam Veterans
Ms. Sheila Cherizard, Kristen Renee Foundation
Mr/Ms Portor, Vietnam Veterans
Ms. Nancy Switzer, Vietnam Veterans
Dr. Barbara Brookmyer, Frederick County Health Department

Ms. Dolly Crum, Community Observer
Mr. Andy Zarins, Community Observer
Ms. Sarah S., Community Observer
Ms. Patti Brown, Community Observer
Mr. George Rudy, Community Observer
Mr. Mike Langford, Fort Detrick Alliance

Members Absent:
LTC James St. Angelo, Director, Safety and Environment and Co-Chair
Mr. Charles Billups, Community RAB Member
Ms. Helen Miller-Scott, Community RAB Member
Mr. Gerald Toomey, Community RAB Member
Mr. Craig Toussaint, Community RAB Member
Mr. Thomas Wade, Community RAB Member

3. Meeting Opening / Remarks.

Mr. Robert Craig, Fort Detrick Environmental Coordinator, convened the meeting at 6:30 p.m., on Wednesday, February 23, 2011, at the Hampton Inn and Suites, 1565 Opossumtown Pike, Frederick, Maryland. Mr. Craig welcomed everyone to the meeting and thanked everyone for their participation. He welcomed Vietnam Veterans and residents from neighboring communities who had come to the meeting to express their concerns.

Mr. Craig advised Dr. Barbara Brookmyer would be hosting a meeting on March 14 at Winchester Hall at 6:30 p.m. with the State and County Health Departments to discuss information regarding cancer concerns. Dr. Brookmyer added that the meeting will be televised on Channel 19 and also available through the Internet. She also noted the meeting will be to discuss information available from additional investigations performed by the State, which will be incorporated into a final report.

Mr. Craig stated that the Army recognizes there are concerns about Agent Orange and its health effects, and the U.S. Army Public Health Command is setting up a clearinghouse to address requests for information and concerns that extend beyond Fort Detrick's boundaries. He continued explaining that, while much of the developmental work was done at Fort Detrick, most of the testing of Agent Orange was done elsewhere. He reminded those present the purpose of the Restoration Advisory Board is to discuss only Fort Detrick's environmental issues. Mr. Craig advised that concerns about testing performed at Fort Hood and Fort Drum should be steered to the U.S. Army Public Health Command. He noted the clearinghouse is just getting set up, and he will pass along additional contact information as soon as it is received [Subsequent guidance provided in April 2011 directs that respective Army Installation Public Affairs Offices need to be contacted instead of the U.S. Army Public Command. Installations are the release authority for information pertaining to their property].

Mr. Craig advised that he would be representing LTC St. Angelo who could not be present and acting as the Army co-chair. Mr. Craig introduced Mr. Gary Pauly and advised that he is the new Community co-chair. Mr. Craig asked the other Board Members to introduce themselves,

which they did. Mr. Craig asked two representatives from the U.S. Environmental Protection Agency staff to introduce themselves, which they did. Mr. Craig also introduced Mr. Gary Zolyak from Fort Detrick's legal office and Mr. Chuck Gordon from Fort Detrick's Public Affairs Office.

4. Purpose of RAB Meetings presented by Mr. Robert Craig.

Mr. Craig referred to two documents, the RAB's Purpose and the RAB's Ground Rules, which were summarized on Power Point slides. He asked everyone to be cognizant of the charter of the RAB, which is focused on environmental cleanup issues. He explained the Board can only look at what is present today at Fort Detrick and whether there are any associated health risks that need to be addressed. Mr. Craig stated that questions and comments from the community are welcome, but requested they be limited to the topics on the meeting agenda and presented at the time allotted after the presentations.

Mr. Craig stated that the Board is jointly and equally chaired by LTC St. Angelo from the Army and Mr. Gary Pauly from the community. He further explained that the Board is made up of representatives from the community, installation, and regulatory agencies. Mr. Craig stated that the Board is not a decision-making body, but is a vehicle for two-way information and advice sharing. He added that the Board is an opportunity for stakeholder involvement and a forum for early discussion about the cleanup program only. Mr. Craig stated that the Board is governed by the Defense Environmental Restoration Program and follows several laws, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which are both risk-driven response action laws.

5. Meeting Minutes presented by Mr. Joseph Gortva.

Mr. Gortva stated that he had sent a draft of the November 2010 meeting minutes to the Board members and had posted them that day on the Fort Detrick web site (www.detrick.army.mil/rab). He asked the Board members to let him know of any comments on the minutes.

6. RAB Membership presented by Mr. Joseph Gortva.

Mr. Gortva welcomed Ms. Shelly Luehring as a new Board member and Mr. Gary Pauly as the new Community co-chair.

7. Technical Assistance Program presented by Mr. Hopeton Brown, Army Environmental Command.

Mr. Brown introduced himself as the Branch Chief for the Army Environmental Command's Cleanup Division, Program and Liabilities Branch. Mr. Brown explained that the Technical Assistance for Public Participation (TAPP) provides a mechanism for members of a Restoration Advisory Board to obtain technical assistance to help them better understand the scientific and engineering issues underlying an installation's environmental restoration activities. He stated that the TAPP Rule was established under 32 CFR Part 203 in February 1998, which codifies the structured policies and procedures for this program.

Mr. Brown summarized the program by stating that it provides community members with an opportunity to design a technical assistance project and aide in the selection of a provider. He noted that the technical assistance is obtained through a government purchase order mechanism to expedite the procurement of services. Mr. Brown stated that the maximum amount of funding for a technical assistance grant is $25,000 or one percent of the total restoration cost, whichever is less. He noted the lifetime limit is $100,000, but Army Headquarters can grant a waiver of the lifetime limit. In response to a question from Mr. Pauly, Mr. Gortva stated the size of Fort Detrick's program would allow an application for $25,000.

Mr. Brown noted that a TAPP does not mean a Board can abandon existing working relationships, for example, conducting their own investigations. He stated that it is not a grant or blank check to use at a Board's discretion. Mr. Brown displayed and reviewed a list of projects which are eligible and projects which are not eligible under a TAPP. He explained that eligible projects would include the review of restoration program documents and proposed remedial technologies, the interpretation of health and environmental risks, and certain types of technical training. Mr. Brown continued explaining that ineligible projects would include the generation of new primary data, re-opening final Department of Defense (DoD) decisions, and conducting community outreach efforts.

Mr. Brown reviewed the application process and stated that the application should specify the type of assistance required, and if possible, suggest one or more providers. He stated that the application should be detailed enough for the Army to evaluate the nature and eligibility of the project, identify potential providers, estimate costs, and prepare the required documentation such as a Statement of Work to begin the procurement process. Mr. Brown advised that the community members must identify a single point of contact for communication with the installation regarding the TAPP procurement process and certify that the project is the result of a majority decision by the community members of the Board. He said that the installation co-chair reviews the application to ensure it is complete, describes an eligible project, and is within budget. Mr. Brown said that the Army would coordinate with the Board on preparing a draft Statement of Work. He noted that if the Army denies the request, it must inform the Board in writing, give the reason for the denial, and recommend alternatives for achieving the desired assistance. Mr. Brown stated that the Board can appeal the decision.

Mr. Brown continued explaining the appeal process, noting the majority of the Board's community members must agree to the appeal. He stated that the chain of command for the appeal process is the installation environmental restoration manager, the Army Environmental Command, Army Headquarters, and finally to the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health, who is the highest authority for appeal.

A community observer in the audience asked how a non-Board member should communicate with the Board that the community would like the Board to look into applying for a TAPP. Mr. Craig suggested the non-Board member make such a comment during the time allotted for community comment at a Board meeting.

Mr. Brown advised that there is no separate appropriation for TAPP; it is funded out of the installation's allocation of Army environmental restoration funds.

Mr. Brown stated that purchase orders are used to accelerate the procurement process. He explained that awards are made on the basis of competitive bidding among contractors registered in the Central Contractor Register and who meet specified criteria.

Mr. Brown stated that the Board may nominate potential assistance providers; however, once the Board initiates a request, it should have no more contact with potential contractors or the procurement office until the contract is awarded. He said that the government will select a provider offering the best value to the government; he noted "best value" is not necessarily the least expensive, but the best overall value. He also added that the community members of the Board may be asked to review and provide comments on potential providers should more than one meet the established criteria. Mr. Brown advised that the procurement process can take up to 10 weeks.

Mr. Brown reviewed the qualifications a TAPP provider must have, including knowledge of hazardous substance issues and academic training in a relevant discipline. He stated that another key qualification is the ability to convey technical information in terms understandable to lay persons. He noted that current contractors doing environmental work at the installation cannot be TAPP contractors

Mr. Brown advised that there are yearly reporting requirements to Congress with respect to a TAPP, and the Board would have to provide a report on what products or services they received and whether or not they were satisfied with the products or services.

Ms. Karen Harbaugh asked if the funding process for Fort Detrick's cleanup program could be explained in more detail at a future meeting. Ms. Laurie Haines advised that to date there has not been a problem with getting funding for Fort Detrick's cleanup program and problems are not anticipated in the future unless something dramatic happens in Congress.

In response to a question about the amount of funding spent to date, Mr. Gortva stated that Fort Detrick has remedies in place at 42 of 43 sites, with the Area B groundwater being the remaining site to be addressed. He noted that additional sites may be created as studies and investigations continue. He also stated that $52 million has been spent on environmental cleanup at Fort Detrick to date.

Mr. Craig stated that he sensed there was some interest in further exploring the possibility of a TAPP and suggested it be put on the agenda for the next Board meeting. He noted that additional progress could be made in the intervening months.

8. Area A and Area B Updates presented by Jeff Parks, Shaw Environmental.

Mr. Gortva introduced Mr. Jeff Parks from Shaw Environmental to discuss the most recent sampling of the groundwater conducted at Area B and the monitoring at the Building 568 site in

Area A. Mr. Gortva mentioned that the snapshot sampling was the last work performed by Shaw Environmental prior to the implementation of the work plan by ARCADIS, another contractor.

Mr. Parks noted that the Area B Groundwater Remedial Investigation Work Plan was issued as a final document in July 2010. He stated that prior to sampling and implementation of the work plan, the Army wanted to have a snapshot of the groundwater in Area B to have data for future well installations and investigations. Mr. Parks advised that the snapshot sampling was conducted in September 2010 and included 30 Area B monitoring wells, three residential springs, and four residential wells surrounding Area B.

Mr. Parks said that the snapshot sampling effort was smaller than the sampling which will be conducted during the remedial investigation, but the snapshot sampling followed the same premises as the work plan in terms of the types of sampling, analysis, detection limits, and chemical parameters.

Mr. Parks reminded the Board that Shaw Environmental has also been conducting semi-annual monitoring of the Building 568 TCE (trichloroethylene) spill since 2002, and he would be providing more information on the monitoring later in his presentation. Mr. Parks said that Building 568 is located in Area A. Mr. Parks explained that the remedy selected after investigation was plume containment using groundwater extraction and monitoring. He continued explaining that an existing groundwater extraction system in Building 568 is being used to extract contaminated groundwater and prevent it from spreading any further. He advised that the system has been effective and the plume has shrunk. Mr. Parks stated that the concentrations of TCE are approaching the Maximum Contaminant Level (MCL) of 5 parts per billion (ppb).

Mr. Parks displayed a map showing the location of Building 568 and the extraction wells. He discussed the sampling results for the last several years, noting they ranged from 8 to 1.5 ppb. Mr. Gortva added that the original concentrations were about 1,000 ppb in the early 2000 timeframe.

Mr. Parks stated that a few wells, including 15A, have shown TCE levels from just below 5 ppb to just above this concentration, as well as a detection of PCE. [In March 2010, 7.3 ug/L of TCE was detected in 15 A. 15 A is a shallow well, screened 45-65 feet deep.] He stated that PCE is not related to the TCE spill, and efforts are underway to try and determine whether that well is being influenced by contamination in Area B. Mr. Henry Erbes mentioned the nearby maintenance building, and Mr. Parks concurred there are some other potential local sources which also will be investigated.

Mr. Gortva stated that a dye trace study is being conducted as part of the Area B groundwater remedial investigation, and Well 15A will be monitored to see if any of the dye appears.

A community member in the audience asked if it is possible that PCE and TCE are still going into Carroll Creek. Mr. Gortva responded that data goes back a number of years that indicates TCE and PCE is coming out in the springs along Carroll Creek from the historical contamination

in the groundwater. He stated that the Creek has been sampled downgradient, away from the springs, and PCE and TCE are not detected.

Mr. Parks summarized the path forward, which includes continuing to monitor the groundwater until the concentrations are below the MCL of 5 ppb and then the Army will close the site after concurrence from the Maryland Department of the Environment and the EPA.

Mr. Parks next discussed the Area B groundwater snapshot activities. He stated that the sampling parameters were increased to get a more complete picture of the Area B groundwater, and the samples were analyzed for volatile organic compounds, semi-volatile organic compounds, pesticides, PCBs, metals, herbicides and picloram, 1,2,3-TCP, and BCEE and 1,4 dioxane. He explained that the single chemicals he mentioned are emergent chemicals which were not sampled for previously, but have become more prominent in national studies. Mr. Parks displayed an aerial photograph showing the sampling locations.

Mr. Parks displayed an aerial map showing the results of the analysis of the samples for TCE. He advised that the highest concentration was in well 57D at 1,400 ppb. He said that this concentration is lower than the historical high of 1,900 ppb reported in September 2006. Mr. Parks advised that overall the groundwater plume is largely unchanged from previous sampling events.

A community member in the audience advised that the old Robinson well is now available for sampling.

Mr. Barry Kissin asked about the average depth of the wells, and Mr. Parks responded that they range from 30 feet to 320 feet. Mr. Parks stated that two of the wells were deep wells at the 300 feet level. Mr. Gortva added that, as part of the remedial investigation, approximately 27 deep wells will be installed. He said the wells would be installed to 320 feet; if data suggests a need to have wells deeper, wells will be installed deeper than 320 feet.

Mr. Parks reviewed the results of analyzing the samples for PCE and noted the concentrations were fewer and lower than the TCE concentrations. He said that the PCE groundwater plume is a smaller plume within the TCE plume. Mr. Parks stated that the PCE plume is largely unchanged from previous recent sampling events. He advised that the highest detection was 740 ppb [in well 24D], which is well below the historical high in August 1998 of 200,000 ppb [in well 57D].

Mr. Parks reviewed the results of analyzing the samples for other volatile organic compounds, noting that there were some compounds detected at levels slightly above their MCL. He advised that the detections were from locations within the TCE and PCE plume boundaries. He explained that some of the compounds are breakdown products of TCE and PCE so those detections were not unexpected. Mr. Parks said that the concentrations of breakdown products have increased over historical ranges, which is an indication that TCE is breaking down into daughter products and biologically degrading.

Mr. Parks discussed the results of analyzing for some chemicals not previously included in the sampling analysis. He stated that no freons were detected in the groundwater above screening levels, nor was 1,2,3-trichloropropane in any of the groundwater samples. Mr. Park said that chloroform was the only other volatile organic compound detected above screening levels in two off-site spring samples, and while the concentrations exceeded the tap water screening limit, they were below the MCL.

Mr. Parks next reviewed the results from the analysis for herbicides, pesticides, and PCBs. He advised that of the 26 samples only two detections of two herbicides were found, both below the screening level. He also stated that one pesticide was detected in two wells below the MCL. Mr. Parks explained that the components of Agent Orange [2,4-D and 2,4,5 –T] also were looked for during the analysis and were not detected in any of the groundwater samples. He advised that no PCBs were detected and have not previously been detected in Area B wells. Mr. Parks advised that no herbicides, pesticides, or PCBs were detected in any residential samples.

Mr. Parks discussed the results from the analysis for semi-volatile organic compounds and metals. He advised that 19 semi-volatile organic compounds were detected in Area B wells, with seven detections above tap water screening limits [these included 1,2,4-trichlorobenzene, 1,4-dichlorobenzene, 1,4-dioxane, 2,6-dinitrotoluene, bis(2-Ethylhexyl)phthalate, naphthalene, and N-nitrosodi-n-propylamine], but there were no detections exceeded MCLs. He stated that no semi-volatile organic compounds were detected in any residential samples. Mr. Parks said that 17 metals were detected in Area B wells, with three metals (aluminum, iron, and manganese) exceeding the MCL. He explained that these exceedances are not unusual and are related to the site geology. He said that the highest concentrations were in the well which is near the former Area B-11 chemical waste disposal trenches.

[1,4-dioxane is an additive to TCE, and moves faster in groundwater than TCE. Due to this, the detection of 1,4-dioxane in the leading edge of a groundwater plume can be a potential precursor to presence of TCE. In the case of the Area B groundwater monitoring wells, the plume has developed to a point where 1,4-dioxane is no longer a precursor for onsite wells.]

[A question was asked as to what level of arsenic was detected in the groundwater during the September 2010 sampling event. There were 26 on-site wells and one off-site spring sampled for arsenic. Well 20D had an estimated (J-flagged) value of 5.3 ppb. Robinson spring designated RISP-3 had an estimated (J-flagged) detection of 4.6 ppb. Both of these samples results are below the Safe Drinking Water Acts Maximum Contaminant Level (MCL) for arsenic which is set at 10 parts per billion (ppb). The MCL is considered safe for a lifetime exposure. There were no other detections of arsenic in the September 2010 groundwater samples.]

Mr. John Fairbank of the Maryland Department of Environment Hazardous Waste Program's Federal Facilities Division provided additional information from the Water Management Administration's Public Water Supply (PWS) data base for Frederick County. There are no public water supply systems in Frederick County where finished water exceeds the arsenic MCL. Raw water produced by PWS in the county ranges from < 1 ppb to as much as 26 ppb of arsenic. The arsenic observed in PWS raw water is related to the dissolution of arsenic containing minerals in the aquifer formation, a natural process. Consequently, the limited detection of

arsenic (5.3 ppb and 4.6) found during the September 2010 sampling event are within the observed range of arsenic in groundwater found in Frederick County.

Groundwater will also be tested again during the ongoing Area B groundwater investigation in 2011.]

9. Interview Project Update presented by Tracy Smith, One Stop Environmental.

Ms. Tracy Smith introduced herself and noted her company, One Stop Environmental, had been awarded the contract by the Huntsville Corps of Engineers to conduct the community interviews. Ms. Smith reminded the Board that the purpose of the project is to document public knowledge about environmental contamination and testing activities that may have occurred at Fort Detrick from the 1940s to the 1970s and to provide the information to the Army.

Ms. Smith reviewed the project timeline. She stated that in October 2010 a web page was created and a toll-free number was established. She continued explaining that once the web page and phone line were set up, they distributed public announcements to the community about the interviews through the local media. Ms. Smith said that in November 2010 they started scheduling phone interviews and in December 2010, they conducted telephone interviews and distributed the public announcement a second time through the media.

Ms. Smith stated that in January 2011 telephone interviews continued with individuals who had responded to the announcements and the scheduling of on-site interviews began. Ms. Smith advised that the first set of on-site interviews were conducted the previously week and would continue over the following two days, with a final set planned for March 2010. Ms. Smith said that all the verbal interviews will be documented into a summary report for the Army.

Ms. Smith reviewed some of the features of the web site (www.detrickcommunity.com) including the posting of public announcements, the toll-free number, and an information form which can be filled out online.

A community member from the audience stated that he had registered, but not yet been contacted. Ms. Smith stated that she would get his information after the meeting. She advised that there were forms available at the meeting and that anyone interested in being interviewed could fill it out that evening. Several community members from the audience asked Ms. Smith if she had reached out to any community members or organizations. Ms. Smith explained that the project was structured to respond to anyone who contacted them, but not to initiate contact. She encouraged anyone interested to speak to her that evening or contact them after the meeting through the web site or by phone.

Ms. Smith displayed a copy of the privacy statement that is on the web site, as well as the public announcement. She advised that the media announcement was distributed to 39 media outlets in October and December 2010 -- 5 print, 21 radio, and 13 television.

Ms. Smith discussed some of the questions asked during the interviews. She noted that former or current employees were asked: When did you begin and end employment? Describe your position and the type of activities you performed. If provided an aerial map, could you find where you were located and what you saw. What time of day did you remember seeing these activities take place? Where any signs posted informing you of the activities? Where you notified beforehand? Did you reside on or off post?

Ms. Smith stated that questions asked of community members included: How many miles do you live from Fort Detrick? How long have you lived there? What was your occupation while living there? What did you see while living there? Had you heard anything about this activity taking place before you observed it? Any other pertinent information that you observed that may be related to contamination activity?

Ms. Smith noted that the summary report would include data maps showing the interviewee's current and/or former residences, the timeframe of the residences, locations where the interviewee noted past activities and potential concern, and the timeframe when they observed the activities.

A community member in the audience stated that some current employees are concerned about their employment and asked whether there was a way to provide information confidentially. Ms. Smith responded that there are provisions for maintaining privacy.

A community member in the audience asked if the report would be available to the public. Mr. Gortva responded that it would be available.

Mr. Robert Craig reiterated that the goal is to find out what happened at Fort Detrick during the 1940s through the 1970s, and the interviews are just one mechanism. He advised that another avenue being pursued is the archival search and introduced Mr. Randal Curtis to give an update on that report.

10. Archival Search Report presented by Mr. Randal Curtis, U.S. Army Corps of Engineers.

Mr. Curtis reminded the Board that he had presented information at the November 2010 meeting on the preliminary report prepared on the search for information regarding activities involving 2,4,5-T. He noted that since the presentation that report had been submitted. Mr. Curtis said that he would be discussing that report, as well as additional findings, since the November Board meeting and upcoming activities.

Mr. Curtis explained that the archive search is a process where historical government documents are reviewed to determine what was done, where it was done, and whether there is something that needs to be looked at from an environmental perspective. He said that since Fort Detrick is a research and development institute, many records exist. He advised that his staff is reviewing thousands of reports and boxes of information. Mr. Curtis noted that some of the documents are still classified, and they are working their way through those documents.

Mr. Gortva asked Mr. Curtis to explain where the records are and where they are not. Mr. Curtis responded that the records are not at Fort Detrick anymore. He stated that prior to the mission change in 1972, there was a technical library on post that would have maintained technical reports from Fort Detrick's scientists, as well as technical publications, such as professional journals, where their results would have been published. Mr. Curtis said that this repository of information got dispersed with some of it going to repositories and some of it going to other technical libraries, so everything is not in one concentrated location.

Mr. Curtis reminded the Board that the scope of the archive search is researching all historical activities at Fort Detrick, fence to fence, for Areas A (main post), B (test area), and C (water and waste water treatment plants). Mr. Curtis explained that historically Area C referred to the eastern expansion of Detrick in 1952, which is part of the present Area A.

Mr. Curtis stated that the first task undertaken was to prepare a preliminary report, which concentrated on the use and testing of Agent Orange related chemicals or what are referred to as the 2,4,5-T compounds. Mr. Gortva advised that the report can be found on the web site at www.detrick.army.mil/responsible/interimArchivalReport2010.pdf.

Mr. Curtis explained that Agent Orange was composed of two chemicals, 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T). He stated that there are different varieties of these two chemical, and all varieties were looked at during the research. Mr. Curtis said that these chemicals were available publicly as weed killers in the late 1940s through the 1960s. He stated that in the late 1960s it became known that the manufacture of 2,4,5-T had dioxins present and subsequently 2,4,5-T was banned for use in food production, and then banned for all uses in 1985.

Mr. Curtis discussed Fort Detrick's involvement with the 2,4,5-T compounds, noting that during World War II there was an organization at Fort Detrick in the Crops Division who had a mission to look at chemicals that might be plant growth inhibitors. He explained that they were not looking at herbicides, but finding chemicals that would impact the crop yield; for example, yielding only a pint of a crop instead of a bushel. He continued explaining that their process was very iterative in that they would start with tiny laboratory amounts of a compound in Petri dishes. He said as they screened thousand of potential compounds, the ones that were more active were tested on greenhouse plants, and then if successful, advanced to testing in small field plot trials. Mr. Curtis advised that 2,4-D was determined to be particularly effective and was advanced to large scale aerial spray tests that were performed at other installations, not at Fort Detrick.

Mr. Curtis stated that a typical test plot at Fort Detrick would have been about 250 feet by 250 feet, segmented for different crops. He said that the crops would be planted in advance, and then when a test was needed, a small movable tent would be put in place, and the compound would be hand sprayed over certain plants. He said that they would do two to three rows at one concentration, move the tent, and then treat several rows at another concentration or with another chemical. He said that they would not spray all of the plants so they would have a control plot to measure the effects of the treated plants. Mr. Curtis advised that in one test they did not use a hand sprayer and instead used an aerial spray from the back of a pickup truck and sprayed

several rows of soybeans and sweet potatoes; from that one test done in Area B, the estimated total amount sprayed was 100 grams. Mr. Curtis said that in comparison, a dollar bill weights about one gram. He stated that there was not much need to spray much because the test areas were very small discrete parcels.

Mr. Curtis stated that aerial photo analysis was done from historical images found and, combined with other data from the test reports, they were able to identify where Fields B, C, and D were located, along with the most likely location where the truck spraying test occurred. Mr. Curtis advised that the estimated amount of 2,4,5-T compounds tested at Fort Detrick was about 17 pounds. He stated that amount would not go lower, but may be higher (20 or 30 pounds) as later test reports do not give exact quantities.

Mr. Curtis noted that the U.S. Department of Agriculture did a study of the use of 2,4,5-T for the year 1969 and found that in agriculture use, the average was about 48 pounds per 100 acres. He said that the study found the total amount used in 1969 in the United States was nearly eight million acres treated with 2,4,5-T and 9 million pounds for various uses.

Mr. Curtis next discussed some limited additional findings since November 2010. He said that they have not identified any test data or reports involving aviation applied herbicide testing at Fort Detrick; large scale tests were done at other locations. He stated that there is still more documentation to review, but the magnitude of use of 2,4,5-T at Fort Detrick appears to be small—in the 10s of pounds not 100s of pounds. Mr. Curtis advised that there were additional tests done in the mid-1950s, but they involved small plots so the quantities remain small. Mr. Curtis noted that they were still hoping to find the researchers' lab books to supply more details and back up.

Mr. Curtis said that another finding was that in 1957 the Army decided to end the crop research, so by the end of 1957 the crop division personnel dropped from 118 to 11, and for the next few years the remaining staff finished up reports. He stated that at that point the installation started leasing out additional portions of Fort Detrick to be agricultural leases. Mr. Curtis pointed out that cross-hatched areas on a map were the areas leased out. He noted that these leases to the community continued for another decade. In response to a question from a community member, Mr. Curtis said that the information found to date indicates that the areas leased out were not ones where spraying was done.

Mr. Curtis reminded the Board that the full archival research study is looking at all potential environmental releases, not just herbicides so research is continuing. He advised that more than 2,600 reports are currently being analyzed, along with 400 maps and aerial imagery.

Mr. Curtis discussed the project schedule and noted that it was contingent on how many records are eventually found. He projected the draft report being completed in the fall, 2011.

A community member in the audience asked whether 1957 was the year when Agent Orange stopped being used. Mr. Curtis clarified that 1957 was when the funding ceased for the crop research program. He said that during the Vietnam War era, another organization within DoD

began examining defoliation techniques and activities with Agent Orange compounds began increasing again.

A community member in the audience asked for clarification on whether there was aerial spraying, as there have been reports it did occur at Fort Detrick. Mr. Curtis responded that he is providing the information found in the technical reports produced during that time period, which indicate the large scale tests involving aerial spraying were performed elsewhere, not at Fort Detrick. Mr. Craig added that there may have been some type of aerial spraying, but it may have been with something other than an herbicide. Mr. Curtis reminded all present that many documents are still being reviewed, and Mr. Gortva noted that all finding will be put into the final report.

A community member in the audience asked if Agent Orange was the same as commercial sprays. Mr. Curtis advised that Agent Orange was chemically the same, but with a higher concentration of 2,4,5-T than commercially available sprays.

A community member in the audience asked if the archival search staff looked at sales records from Dow Chemical regarding amounts sold to the Army. Mr. Curtis stated that the archival search report is only focused on what happened at Fort Detrick. He said that typically the scientists at Fort Detrick were creating the amounts used here as they were small quantities. A member of the public referred to a letter from Dow Chemical; Mr. Curtis said that he would be glad to review it if a copy could be provided to him, and the community member agreed to email it to Mr. Curtis.

11. Environmental Restoration Program Update presented by Mr. Joseph Gortva, Fort Detrick.

Mr. Gortva first updated the Board on the Federal Facility Agreement. He stated the Area B Groundwater Site was placed on the National Priorities List in April 2009. He advised that the Federal Facility Agreement between the Army and EPA was signed on December 14 and December 17, 2010, respectively Mr. Gortva said that the 45-day public comment period on the Federal Facility Agreement started January 4 and closed February 17. He stated that comments received by EPA will be sent to the Army by March 10, 2011, and 30 days after the public comments are sent to the Army, the agreement will either be made effective or modified based on the public comments. He noted that it would be approximately April 8, 2011 when it would become effective. [Since the RAB meeting, the FFA comment period was extended to April 3, 2011. As a result, the agreement will be made effective or modified based on the public comments by May 24, 2011.]

Mr. Gortva reviewed the status of the Phase 1 Herbicide/Dioxin Sampling Plan prepared by the U.S. Army Public Health Command for the one known site in Area B where the truck mounted sprayer was used. He emphasized that this was only Phase 1, which is looking at a likely location, and additional phases will be added as needed as other locations are identified. Mr. Gortva explained that background samples will also be collected; several locations initially identified as potential background sample locations have had extensive soil disturbances so new locations are being identified and right of entry packages are being finalized for landholders. Mr. Gortva said that as soon as the right of entry packages are finalized, the draft sampling plan

will be sent to the regulators (Maryland Department of the Environment and EPA) and the Board for review.

Mr. Gortva next discussed the Area B Groundwater Work Plan, reminding the Board that the contract is in place with ARCADIS to implement the Work Plan. He noted that the work plan includes off-site sampling, so Right of Entry packages are being finalized for landholders and should be ready in a couple of weeks. He added that the packages are key to several work plan activities that are commencing, including sampling at the springs, the dye trace study, monitoring of water levels in the streams and creeks, groundwater/surface water/sediment sampling, and vapor intrusion sampling. Mr. Gortva advised that some activities are proceeding and will be starting the next day. ARCADIS will be surveying Area B wells to be sure they are in good condition and making any needed repairs. He said that at the end of the March [April], weather permitting, ARCADIS will begin drilling the 27 deep paired wells starting with the on-post locations.

Mr. Gortva next discussed the residential well water testing. He showed on a map an area outlined in blue which extends two miles to the north, two miles to the east, two miles to the south, and one mile to the west, where water will be sampled and analyzed for volatile organic compounds, which are the main components of the groundwater plume in Area B. Mr. Gortva said that the sampling plan is flexible in that if detections are found near the border, the border will be adjusted and moved further out until the edge of the plume is determined. He noted that in certain areas, such as Clover Hill, all tests have been negative for more than 10 years. He advised that the Maryland Department of the Environment had put together a well protection report for Clover Hill, which states that those wells are not being impacted by the Area B plume. Mr. Gortva said that Fort Detrick will be working in conjunction with Maryland Department of the Environment and EPA as data is received to decrease or increase the borders for the sampling program as appropriate.

Mr. Barry Kissin asked if any residential wells have been sampled off-post that are in the direction of the plume. Mr. Gortva responded that there are only a few wells identified which are downgradient of the plume, and while those wells are inactive, they are sampled. He stated that searches have been done in the past to identify any other wells and none have been found. Mr. Gortva said that if any residents have wells downgradient of the plume, Fort Detrick would like to know and to sample such wells.

A member of the public said that he resided in the Clover Hill area and was told because he was one block out of the area his well could not be tested. Mr. Gortva asked him to contact him directly with the information.

12. General Restoration Questions.

A member of the public mentioned the location of a sump where there might be potential archival layering of dioxin or other herbicides. He also suggested a background location might be the undisturbed woodland area in the middle of the Area B.

Mr. Gortva said that these ideas would be considered as the sampling program moves forward. He noted that the first priority in looking for environmental contamination is to sample locations where activities occurred; if chemicals are detected, then samples would continue to be taken further out until there are no longer any detections. He explained that background samples are collected away from Fort Detrick so the Army knows what the normal levels would be for comparison with samples collected at Fort Detrick.

A member of the public asked about the extent of Fort Detrick's sampling program as far airborne plumes are concerned. Mr. Gortva advised that this is the reason that the archival research report has been funded to see if there are any areas that have been missed.

A member of the public asked if residential basement vapor intrusion studies are being conducted. Mr. Gortva responded that vapor intrusion sampling is part of the Area B work, and they will be looking at off-post locations in the pathway of the plume. He noted that based upon those results, the sampling program may need to be expanded or the data may show there is not a problem.

A member of the public asked if historical meteorological program information existed. Mr. Gortva responded that he was not aware of any such data, but it is the type of information that the archival search may turn up.

A member of the public expressed his concern about black soot landing on his house. Mr. Craig stated that Fort Detrick has spent significant money on replacing the scrubber system at the municipal waste combustors, and they are meeting all standards issued by Maryland Department of the Environment. Mr. Craig said that there was one issue with black soot in the past eight years which occurred on May 5, 2005, when there was a problem at the boiler plant. Mr. Craig invited the citizen to contact him directly if he experienced a black soot problem.

A member of the public commented on activities by a blimp in the 1960s that released material resembling confetti and stated that it was important to know more information about those activities. Mr. Gortva noted that the blimp was not associated with the herbicides testing. Mr. Gortva said that the final archival search report would document historical activities that might have had an environmental impact.

Dr. Richard Lipsy, a toxicologist, stated that he had done research on Agent Orange at the University of Florida, and did the original hazard evaluation for EPA in the 1970s. He said that he believed the comment about the amount of Agent Orange purchased is important. He stated that the 2,4,5-T sold to farmers had very low concentrations of dioxin, while the amount Dow Chemical sold to the Army had extremely high concentrations of dioxin. He said there was an understanding that the Army would never use the Agent Orange for agricultural purposes or anything other than defoliation in Vietnam or testing at Fort Detrick or other bases. Dr. Lipsy stated that the chemicals talked about in the presentations are human carcinogens, and there is sufficient evidence that Agent Orange dioxin, 2,3,7,8-TCDD causes soft-tissue sarcoma, non-Hodgkin's lymphoma, Hodgkin's disease, chronic lymphocytic leukemia, and limited but suggestive evidence that it causes lung cancer, tracheal cancer, bronchial cancer, prostate cancer, and other diseases. Dr. Lipsy said that he thinks the estimated 16 to 17 pounds of Agent Orange

active ingredient is not to be believed and does not think all the records have been found. He stated that it would therefore be important to look at sales records from Dow to the Army at Fort Detrick. In response to a question from Mr. Zolyak as to who had asked Dr. Lipsy to attend the meeting, Dr. Lipsy said he is a consultant for many clients and was hired by Mr. Randy White to attend as a consultant.

Mr. Gortva said that the environmental restoration program will continue to look at what activities occurred in the past and gather information from the interview process and archival search and then investigate whether there is any environmental contamination present today that needs to be addressed. Mr. Gortva said this is the purpose of the environmental restoration program.

Mr. Gortva closed the public comment portion of the meeting and invited any other comments to be directed to Mr. Chuck Gordon from Fort Detrick's Public Affairs Office, who was present at the meeting.

13. Next RAB Meeting.

Mr. Gortva said that the next proposed meeting date is May 11, 2011. Mr. Gortva invited Board members and regulators to let him know if they are not able to attend on that date. [Since this meeting it was determined that the preferred meeting location will be unavailable in May due to renovations. In addition, several key regulatory RAB members will be unavailable until June. The next RAB is tentatively scheduled for June 15th pending meeting location availability.]

The meeting adjourned at approximately 9:04 p.m.

Reviewed by:

Original Signed
Dr. Gary Pauly
Community RAB Member
Co-Chair

Approved/Disapproved:

Original Signed
James St. Angelo, III
Lieutenant Colonel, U.S. Army
Co-Chair & Director, Safety and Environment

Enclosures:
Fort Detrick Installation Restoration Program Technical Assistance Program
Fort Detrick Installation Restoration Program Areas A & B Groundwater Sampling Results
Fort Detrick Installation Restoration Program Interview Project Update

Fort Detrick Installation Restoration Program Archives Search Report Findings
Fort Detrick Installation Restoration Program Status Update
Meeting Sign-In Sheet

DISTRIBUTION:
Each RAB Member (w/o enclosure)

SAMPLING REPORT CISTERN AND FREE BARN AREA B FORT DETRICK, FREDERICK, MARYLAND

Job JA72841
Prepared for:

KRISTEN RENEE FOUNDATION

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April 9 2011

Prepared by

Professional Geologists

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Dear Hank, Robert and Barbara

1.0 Sampling Summary

On April 9 2011 two (2) soil samples were obtained and analyzed for Dioxins, Pesticides and Metals;

1. **Cistern:** The first sample was from the sludge collected in the bottom of the concrete cistern at Ann and James Krantz farm house on Shookstown Road (about 200 yards from the fence line of Area B in Frederick Maryland. Under Level-C protection with a spotter and harness, John Bee descended a ladder into the bottom of the concrete/cinderblock cistern on the west side of Ann & Jimmy Krantz's vacant farm house and obtain a sample with a dedicated spatula from the 1-inch-thick black sludge layer collected in the concrete bottom of the cistern.
2. **Free Barn:** Later that afternoon the second sample was collected as a composite dust sample from the base of the 2nd floor ventilation slits in the stone façade on the south end of the Free Farm barn, facing Area B, adjacent to Rocky Springs Road. The sample was obtained using a dedicated hand held vacuum and spatula to collect the dust. Sufficient sample volume was obtained by compositing the dust from four vents.

The samples in bottles supplied by Accutest Lab were hand-delivered on ice under Chain-of-Custody (Job JA72841) to Accutest Labs in Dayton, New Jersey. Accutest Labs analyzed the samples for PCB Pesticide and Metals and forwarded a duplicate for Dioxins and Furans analysis to Cape Fear Lab in North Carolina.

1.1 Site Location - See attached Figure 3.20

1.2. Background History

According to Jimmy Krantz, the cistern at the Ann Krantz farm house was built in 1957 and received run-off water from the roof of the farm house. The cistern measured approximately 9 feet deep and 10 by 6 feet wide. The water that collected in the cistern was used for drinking water and bathing. The roof also collected particulates over this time and the sediment in the run-off water collected as the sludge in the first compartment of the cistern that was separated from the second compartment by a brick wall/baffle. The cistern was closed in 1964 and disconnected from the roof drain when a well was drilled for the house water supply. Thus, the cistern is considered somewhat of a time capsule collecting sediment from particulates falling on the rook from 1957 to 1964.

The Free barn is at least 60 years old in the farm yard of the Free family Farm, adjacent to a cemetery for the community. The ground floor of the Barn was used for housing livestock and farm equipment and the second floor was used for storing hay and straw, has rotted wooden floor that is accessed by an earthen ramp on the west side.


N39°26'16.8"
°27'40.32"
W 77°27'14.4"
W 77°26'48.48"
W 77°26'22.56
N39°25'50.88"
Image U.S. Geological Survey
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Google
Imagery Date: 2/28/200
1988
39°26'09.58" N 77°27'00.10" W elev 363 ft
Eye alt 6184 ft

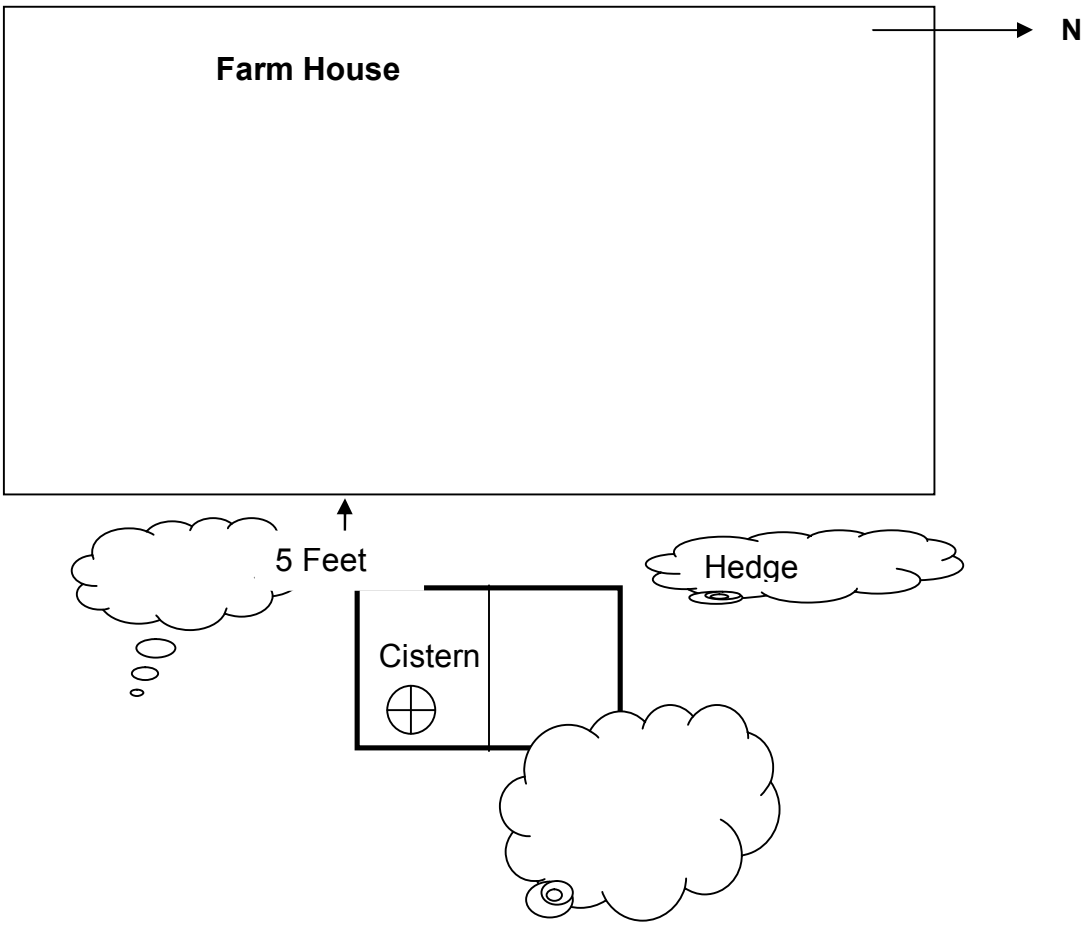
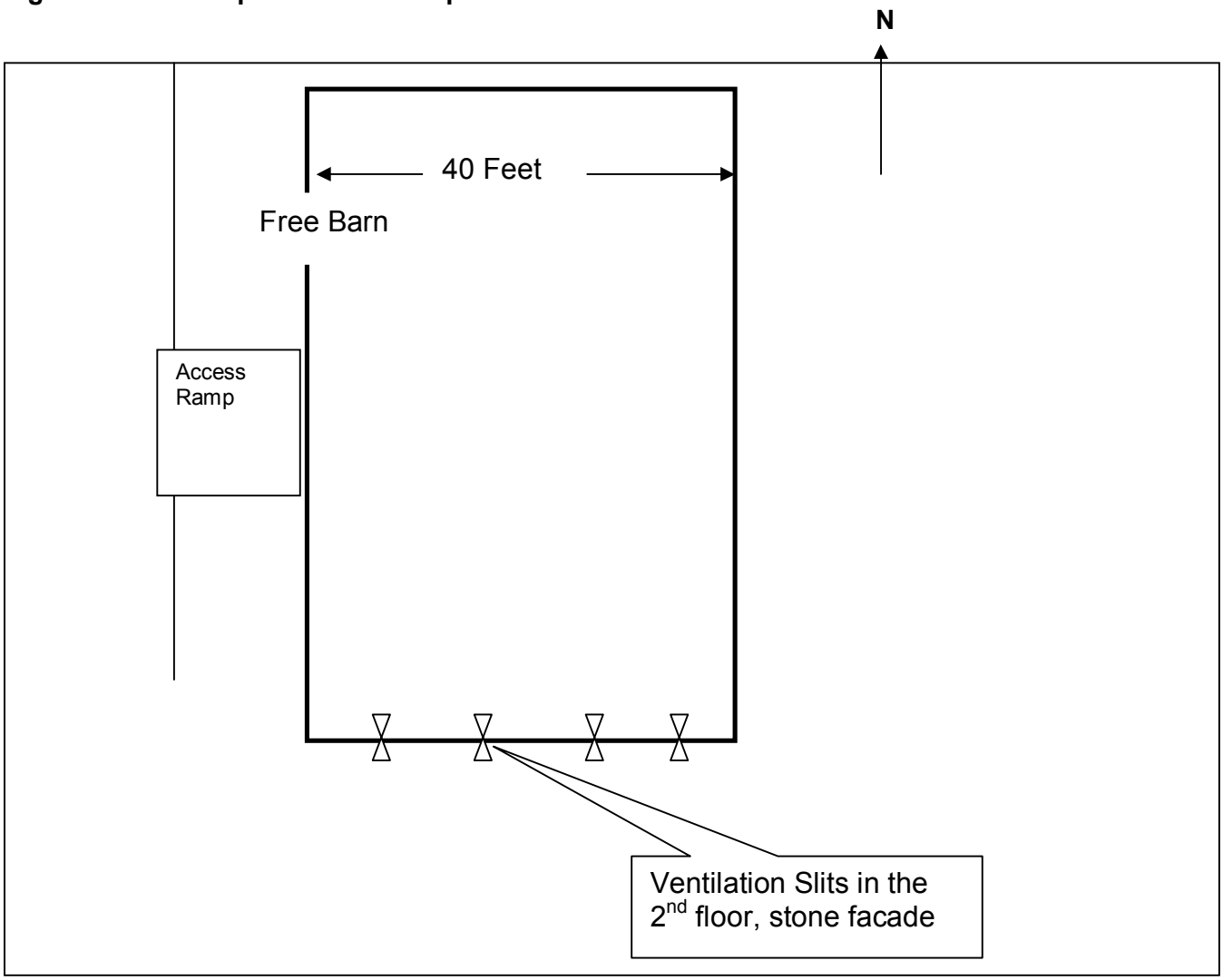


Figure 1: Cistern Sample Location

Figure 2 Composite Dust Sample Free Barn



2.0 QUALITY ASSURANCE/QUALITY CONTROL

The soil sampling techniques used during the site assessment were employed to eliminate possible sample contamination and maximize the reliability of the analytical results. These efforts include proper use and cleaning of sampling equipment and sample containers, use of a Quality Assurance program to maximize accuracy and precision of the analytical results, and use of Chain-of-Custody procedures to track the samples from source to analysis to the lab and minimize the opportunity for error.

2.1 Soil Sampling Procedures

A dedicated clean spatula was used to collect the sediment sample from the cistern.
A dedicated clean spatula and dedicated vacuum were used to collect the dust sample from the vents.

2.2 Sample Handling

Soil sample containers, glass jars with Teflon-lined plastic screw-on lids, were provided by Accutest, a eLap-certified laboratory. Containers used to collect soil samples were specifically dedicated to that purpose. The containers, as provided, are cleaned prior to shipment by the laboratory using standard, in-house procedures. To prevent contamination of sample bottles, each bottle was sealed until used. After collecting a sufficient amount of sample, the sample jar was sealed with a screw cap. The sample jar was labeled with the following information recorded on it: Project Name, Sample Number, Name of Sampler, Time and Date of Sampling, and Analysis Method. The jar was then placed in a cooler and kept at 4^0C until arrival at the laboratory. This procedure was repeated at each sample location.

2.3 Chain of Custody

A Chain of Custody Record was maintained according to the requirements of the Technical Regulations and was included with the laboratory shuttle from the moment of the container's dedication until the time of the corresponding analyses. The purpose of monitoring the chain of custody of a sample shuttle is to ensure that proper handling requirements have been met for representative samples prior to their analysis. The transfer of samples was accompanied by the Chain of Custody Record, which was completed to identify numbers, quantities and physical description of the samples, and the particular analyses requested. The name of the sampler who relinquishes the shuttle, the time and date of the transfer, and the laboratory representative assuming responsibility for transporting the shuttle to the lab was recorded.

2.4 Laboratory Analytical Procedures

For this project, Accutest Laboratories, a eLap certified laboratory, was employed to analyze soil samples from the site. Accutest Laboratories is located at 2235 Route 130 in Dayton, NJ (NJ Lab Certification No. 12129). The analytical parameters which were utilized in this investigation of soil samples included Metals and PCB/Pesticides. The National Environmental Laboratory Accreditation Program (NELAP) forms the foundation of their Corporate Quality Assurance Program. This enables Accutest to hold multi-state accreditations and certifications that conform to a national standard. Accutest has also received Department of Defense Environmental Laboratory Accreditation (DoD ELAP) and ISO/IEC 17025:2005 Certificate of Accreditation from the Laboratory Accreditation Bureau (L-A-B) to perform environmental testing in support of environmental restoration programs.

For the Dioxin and Furans analysis, Cape Fear Analytical was employed to analyze the dust and sediment samples. Cape Fear Analytical is located at 3306 Kitty Hawk Road, Suite 120, Wilmington, NC 28405
Tel. 910-795-0421. The analytical parameters which were utilized in this investigation of soil samples included Dioxin and Furans. Specialized Analytical Services: SW846 Method 8290A: Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/HRMS). Method 1613: Tetra- through Octa-Chlorinated Dioxins and Furans in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS.

Table 1 shows the analytical methods for the analytical parameter along with method name, method number, method source, practical quantification limits (minimum detection limits) and method references.
Analytical results are presented in the Appendix in a summary report along with the QA/QC documentation.

Table 1

Fort Detrick, Frederick, MD
Project: 070210

QTY	MX	Code	Method	Test Description	T/A
2	SO		%SOL	Solids, Total Percent	21
1	SO		EH	Redox Potential	14
2	SO		HM8	Heavy Metals	21
1	SO		PH	pH	14
1	SO		XCRA	Chromium, Hexavalent	14
1	SO		XCRGRAPH	eH pH Phase Diagram	14
1	SO		XCRNOT	Hexavalent Chromium Notification	14
2	SO		XPPTCL	Pesticides, PCB's, TCL	21
1	SO		XXCRAR	Hexachrome Package Code Reanalysis	14
				FULT1 deliverable	

LabLink Job Report

Job No.	Samples	Received	Collected	Account	Project No. ST	Project Deliv
JA72841	**4**	**04/10/2011**	**04/09/2011**	**TAPASHNJ**	**070210 MD. Fort Detrick, Frederick, MD**	**FULT1**
JA72841X	**2**	**04/10/2011**	**04/09/2011**	**TAPASHNJ**	**070210 MD. Fort Detrick, Frederick, MD**	**FULT1**

5.0. FINDINGS

5.1 Soil Analysis Results

Fort Detrick, Frederick, MD
compared to EPA Region 3,6,9 RSL - Residential Soil (USEPA 5/11) Hits
Exceedances

Sample	Parameter	Result	Units	RL	MDL	Limit	DF	Client ID	Collected	Time
JA72841-1	alpha-Chlordane b	15.4	ug/kg	6.5	2.2		1	[redacted]	4/9/2011	10:30
JA72841-1	4,4'-DDD	21.3	ug/kg	6.5	2.8	2000	1	[redacted]	4/9/2011	10:30
JA72841-1	4,4'-DDE	24.3	ug/kg	6.5	2.2	1400	1	[redacted]	4/9/2011	10:30
JA72841-1	Aroclor 1254	363	ug/kg	160	41	220	1	[redacted]	4/9/2011	10:30
JA72841-1	Solids, Percent	18.1	%				1	[redacted]	4/9/2011	10:30
JA72841-1	Arsenic	94.6	mg/kg	11		0.39	1	[redacted]	4/9/2011	10:30
JA72841-1	Barium	470	mg/kg	110		15000	1	[redacted]	4/9/2011	10:30
JA72841-1	Cadmium	18.3	mg/kg	2.8		70	1	[redacted]	4/9/2011	10:30
JA72841-1	Chromium	668	mg/kg	5.5			1	[redacted]	4/9/2011	10:30
JA72841-1	Lead	6670	mg/kg	11		400	1	[redacted]	4/9/2011	10:30
JA72841-1	Mercury	1.2	mg/kg	0.16		10	1	[redacted]	4/9/2011	10:30
JA72841-1	Selenium	40.7	mg/kg	11		390	1	[redacted]	4/9/2011	10:30
JA72841-2	4,4'-DDE	6	ug/kg	1.2	0.42	1400	1	[redacted]	4/9/2011	13:00
JA72841-2	4,4'-DDT	6.2	ug/kg	1.2	0.5	1700	1	[redacted]	4/9/2011	13:00
JA72841-2	Methoxychlor	11.1	ug/kg	1.2	0.53	310000	1	[redacted]	4/9/2011	13:00
JA72841-2	Solids, Percent	98	%				1	[redacted]	4/9/2011	13:00
JA72841-2	Arsenic	4.3	mg/kg	2.1		0.39	1	[redacted]	4/9/2011	13:00
JA72841-2	Barium	53.8	mg/kg	21		15000	1	[redacted]	4/9/2011	13:00
JA72841-2	Chromium	12.5	mg/kg	1.1			1	[redacted]	4/9/2011	13:00
JA72841-2	Lead	8.1	mg/kg	2.1		400	1	[redacted]	4/9/2011	13:00
JA72841-1R	Redox Potential Vs H2 c	184	mv				1	[redacted]	4/9/2011	10:30
JA72841-1R	pH	6.94	su				1	[redacted]	4/9/2011	10:30

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**JA72841X**	**Client:**	**ACCU001**	**Project:**	**ACCU00211**
Lab Sample ID:	**2294001**	**Date Collected:**	**04/09/2011 10:30**	**Matrix:**	**SOLID**
Client Sample:	8290 Soil	**Date Received:**	04/14/2011 10:26	%Moisture:	78.9
Client ID:	JA72841X-1X			Prep Basis:	Dry Weight
Batch ID:	**18636**	**Method:**	**SW846 8290A**		
Run Date:	**04/22/2011 09:03**	**Analyst:**	**MJC**	**Instrument:**	**HRP763**
Data File:	020apr11a_Z-12			Dilution:	1
Prep Batch:	18621	Prep Method:	SW846 3540C		
Prep Date:	**19-APR-11**	**Aliquot:**	**10.98 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.967		pg/g	0.664	4.32
40321-76-4	1,2,3,7,8-PeCDD	JK		3.33	pg/g	0.586	21.6
39227-28-6	1,2,3,4,7,8-HxCDD	J	3.76		pg/g	0.985	21.6
57653-85-7	1,2,3,6,7,8-HxCDD	J	8.88		pg/g	0.916	21.6
19408-74-3	1,2,3,7,8,9-HxCDD	J	8.90		pg/g	1.02	21.6
35822-46-9	1,2,3,4,6,7,8-HpCDD		163		pg/g	1.68	21.6
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1490		pg/g	3.58	43.2
51207-31-9	2,3,7,8-TCDF		7.70		pg/g	1.04	4.32
57117-41-6	1,2,3,7,8-PeCDF	J	9.22		pg/g	0.661	21.6
57117-31-4	2,3,4,7,8-PeCDF	J	7.38		pg/g	0.675	21.6
70648-26-9	1,2,3,4,7,8-HxCDF	J	10.0		pg/g	0.806	21.6
57117-14-9	1,2,3,6,7,8-HxCDF	J	6.93		pg/g	0.692	21.6
60851-34-5	2,3,4,6,7,8-HxCDF	J	8.27		pg/g	0.766	21.6
72918-21-9	1,2,3,7,8,9-HxCDF	J	2.90		pg/g	0.924	21.6
67562-39-4	1,2,3,4,6,7,8-HpCDF		51.3		pg/g	0.784	21.6
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	4.83		pg/g	1.08	21.6
39001-02-0	1,2,3,4,6,7,8,9-OCDF		107		pg/g	1.26	43.2
41903-57-5	Total Tetrachlorodibenzo-p-dioxin		14.6	27.1	pg/g	0.664	4.32
36088-22-9	Total Pentachlorodibenzo-p-dioxin	Q	30.2	34.7	pg/g	0.586	21.6
34465-46-8	Total Hexachlorodibenzo-p-dioxin		103		pg/g	0.916	21.6
37871-00-4	Total Heptachlorodibenzo-p-dioxin		321		pg/g	1.68	21.6
30402-14-3	Total Tetrachlorodibenzofuran		87.5	92.7	pg/g	1.04	4.32
30402-15-4	Total Pentachlorodibenzofuran	Q	103		pg/g	0.661	21.6
55684-94-1	Total Hexachlorodibenzofuran		103	117	pg/g	0.692	21.6
38998-75-3	Total Heptachlorodibenzofuran		108		pg/g	0.784	21.6
3333-30-0	TEQ WHO2005 ND=0		11.9	15.2	pg/g		
	TEQ WHO2005 ND=0.5		12.2	15.2	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		659	864	pg/g	76.3	(40%-135%)
13C-1,2,3,7,8-PeCDD		621	864	pg/g	71.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		563	864	pg/g	65.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		704	864	pg/g	81.5	(40%-135%)
13C-OCDD		1180	1730	pg/g	68.3	(40%-135%)
13C-2,3,7,8-TCDF		647	864	pg/g	75.0	(40%-135%)
13C-1,2,3,7,8-PeCDF		607	864	pg/g	70.2	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		471	864	pg/g	54.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		593	864	pg/g	68.7	(40%-135%)

J Value is estimated

K **Estimated Maximum Possible Concentration**

6.0 CONCLUSIONS and RECOMMENDATIONS

The allowable Region 3 soil criteria indicate that:

Cistern – Arsenic and Lead in particular is at elevated concentrations of concern at 6670 ppm compared to 400 ppm Region 3 allowable level

The Free Barn - had a slight exceedance for Arsenic 4.3 ppm v 0.39 soil criteria

The Dioxin results from the Cistern and Free family Barn are within the same range as previous results.

ENVIRONMENTAL ENGINEERING SERVICES

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- Experienced in **Spill Prevention and Hazardous Materials Management**
- Providing **Environmental Audits** for **Real Estate Transactions** and the **Management of Contaminated Sites**
- Offering **Risk Control** and **Environmental Training Programs.**

Emergency Spill Response Project Management Services

- **Available 24 hours a day.** Experienced in **Spill Response** & **Project Management** for **Hazardous Materials Spills and Clean-up Actions.**

Environmental Compliance

- **Obtaining Permits** and Assuring Environmental Compliance. **Expert Witness and Consultant** on numerous enforcement cases for Industry and the United States Environmental Protection Agency.

Spill Site Investigation

- **Investigating Spills to Soil & Groundwater**

Environmental Monitoring Air, Soil, Water and Groundwater Sampling

- **Sampling and Analysis** to Determine the Extent of Risk and Liability
- **Contaminant Hydrogeology** Senior Hydrogeologist available for soil and groundwater investigations and the design and installation of cleanup systems for hazardous materials spills
- **Engineering Geology, Waste Disposal** and **Soil and Groundwater Treatment** methods used in **Superfund Site Remedial Actions.**

Spill Cleanup- Remedial Action

- **Responding to Accidental Spills** of hazardous materials, reducing health hazards from uncontrolled waste sites, tank spills: providing hazard assessment and cost-effective cleanup.

Government - Industry Negotiations

- **Skilled Negotiator and Project Manager** representing Industrial clients as part of the project management for hazardous material spills and cleanup operations.

Experience JOHN BEE. 220 Forsgate Drive, Jamesburg, NJ 08831. (732) 521-2322

ENVIRONMENTAL EXPERT, SENIOR GEOLOGIST, PRESIDENT,

After working for the USEPA and Union Carbide John founded Shakti Consultants in 1987. He ran this successful Environmental Consulting firm for fifteen years. John now operates Tapash LLC, as a sole practitioner. Tapash is an Environmental Consulting and Real Estate Development Corporation, specializing in *Brownfields* redevelopment of environmentally contaminated properties. John is President of the National Institute for Brownfields Redevelopment.

John began his career as an Engineering Geologist, building roads, bridges, dams, city centers and housing in England and Canada.

John's 20 years of Professional Experience has made him completely familiar with hazardous substance spill scenarios and cleanup operations. In addition, he has extensive experience in Brownfields Redevelopment, completing the property transfer and redevelopment of contaminated industrial and commercial property. John has gained experience in legal, insurance and regulatory compliance as an Environmental Expert and Witness.

In the USA, John developed Shakti Consultants and Tapash into turn-key environmental consulting firms capable of the site investigation and hands-on cleanup of chemical spills. He has extensive experience dealing with very small to very large corporations, law firms and insurance companies and government agencies. Areas of expertise include chemical industry audits, groundwater investigations and spill cleanup including underground tanks, process spills, property transfer, RCRA compliance, audits and contingency planning, emergency response, hazardous waste management, training, and public relations

As a Senior Geologist and Project Manager for Union Carbide, he directed the site investigations, spill responses and remedial actions for numerous environmental problems. He coordinated compliance with the hazardous materials spill and hazardous waste regulations facing this major corporation.

As a consultant to the U.S. Environmental Protection Agency his experience, as a Senior Geologist and Project Manager, included major CERCLA/Superfund sites involving air, surface water, groundwater and solid waste management. He directed the investigation and remedial action at over 100 hazardous material responses to chemical fires, spills of oil, PCB, pesticide, gasoline, solvent and metals to lakes, rivers, soil & groundwater for the USEPA and Union Carbide in Canada, New York, New Jersey, Ohio, West Virginia, Louisiana, Texas and Puerto Rico.

Disaster Relief: Assisted in reinstating hydroelectric power to San Juan, Puerto Rico following a hurricane. Worked for Federal Emergency Management Authority (FEMA) on Disaster Relief in the USA following Floods and Hurricanes. Assessed the damage to public works, roads, bridges and treatment plants following floods and hurricanes in New York, New Jersey and Puerto Rico.

630 -

Vaccine Ingredients
Beta-propiolactone

Chemical Analysis

Search

Beta-propiolactone: C3H4O2 An attenuating agent

The vapor is very irritating and the liquid form is carcinogenic. Propiolactone is "reasonably expected to be a human carcinogen." (IARC 1999)Recognized - carcinogen, Suspected - gastrointestinal or liver toxicant, respiratory toxicant, skin or sense organ toxicant. More hazardous than most chemicals in 3 out of 3 ranking systems. On at least 5 federal regulatory lists. Ranked as one of the most hazardous compounds (worst 10%) to humans. Propiolactone was once widely used in the manufacture of acrylic acid and its esters, but its use has been mostly phased out in favor of safer and less expensive alternatives.

Chemical descriptions:

Wikipedia.com http://en.wikipedia.org/wiki/Beta-propiolactone

National Library of Medicine: PubChem
http://pubchem.ncbi.nlm.nih.gov/summary/summary.cgi?sid=10326964

Adverse effects
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?CMD=search&DB=pubmed&term=%22Propiolactone%2fadverse%20effects%22[Mesh%20Terms%3anoexp]

Toxicity
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?CMD=search&DB=pubmed&term=%22Propiolactone%2ftoxicity%22[Mesh%20Terms%3anoexp]

Scorecard: Pollution Information Site
http://www.scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=57%2d57%2d8

a.k.a. 2-oxatanone Propiolactone, â-propiolactone, 2-oxatanone, Propiolactone

Present in these vaccines:
Rabies Vaccine Adsorbed
Fluvirin – Influenza virus **Hide.**

Documentation View in order of Newest publish date

Scientific Literature Only

1. **"Neurological complications due to beta-propiolactone (BPL)-inactivated antirabies vaccination. Clinical, electrophysiological and therapeutic aspects."**
"Seventy six patients with neuroparalytic accidents due to antirabies vaccination (ARV) with BPL vaccine were studied.... Fourteen (18.4%) patients died and 6 were autopsied. The pathological features were essentially myeloradiculopathies, with variable degree of encephalic involvement. Two showed distinct necrotising myelopathy of immune type."
Swamy HS, et al, *J Neurol Sci. 1984 Jan;63(1):111-28.* -- 1/1/1984

Learn About
- Specific Vaccines
- Reactions / Conditions
- Vaccine Risks
- Vaccine Ineffectiveness
- Vaccine Ingredients
- How? Why?
- Authorities Speak Out
- Law / Exemptions

Communicate
- Vaccine Blog
- Receive Newsletter
- Send to a Friend
- News and Views

Contribute
- Take a Stand
- Add to the Database
- Testimonials
- Link to WAVE
- Donate

Mouse Pox		TULAREMIA Reaction			BRUCELLOSIS			VEE			PPD		
		Date	UL	Titer	Date	US	Titer						
Immune 2094-13A		3Aug59	Titer (E)	1:20	3Aug59	Titer	Neg	12Oct64	WR	Nal	<10	29Oct62	Intermediate
2094-16A	Unin. Reac.	3Aug59	SK.T 0.1ml 1:1000	Neg	23Jan60	Titer	Neg	12Oct64	ml	NEG	<1:10		
		5Aug59	0.25ml 108B	Ra	18June60	Titer	neg.	27Oct64	0.5ml TC 83	3-2-L3	Ra		
		6Aug59	0.5ml 108B	Ra	18May60	Titer	Neg	16Nov64	WEANU	Nal	160		
		7Aug59	0.5ml 108B	La	7Nov60	Titer	1:25	16Nov64	ml	NEG	1:40		
		25Jan60	Titer (E)	1:40	7Feb61	Titer	1:25	24May65	ml	HAD	1:160		
		18June60	TITER (E)	1:20	15May61	Titer	Neg.	27Nov65	Nal	ml	1:40		
		18June60	SK.T.0.1ml 1:1000	Neg	2Aug61	Titer	Neg	2May66	Nal	ml	1:20		
		23June60	Live Vaccine #4		31Oct61	Titer	Neg	7Mar66	NHI	mI	1:20		
Titer (WR)	<4	14July60	Titer (E)	1:320	14May62	Titer	neg	15May67	Nal	ml	1:40		
PC7 Titer	Neg	15Aug60	SK.T.0.1ml 1:1000	ETED 15X15	29Oct62	Titer	1:25	20Nov67	Nal	ml	1:10		
0.1ml DP2A	Ra	7Nov60	Titer (E)	1:160	14May63	Titer	1:50						
min. 0 48hr. 0		7Nov60	SK.T.0.1ml 1:1000	ETED 15X20	18Nov63	Titer	Neg						
1.0 ml DP2A	Ra	6Feb61	Titer (E)	1:80	4May64	Titer	Neg						
mid. 0 48hr 0		26July61	SK.T.0.1ml 1:1000	ETED 4X5	16Oct64	Titer	1:25						
1.0 ml DP2A	La	15May62	Titer (E)	1:80	16Nov64	Titer	neg						
min. 0 48hr. 0		15May62	SK.T 0.1ml 1:1000	Neg	24May65	Titer	neg.						
Titer WR	<4	7Aug62	Titer	1:80	27Nov65	Titer	Neg						
T. Titer ml	Neg	7Aug62	SK.T.0.1ml 1:1000	ETED 12X17mm	2May66	Titer	Neg						
PC7 Titer	Neg	31Oct61	Titer	1:40	7Mar66	Titer	Neg						
C7 Titer	neg	31Oct61	SK.T.0.1ml 1:1000	ETED 10X12mm	15May67	Titer	neg						
PC7 Titer	1:5	14May62	Titer	1:80	20Nov67	Titer	neg						
C7 Titer	Neg.	14May62	SK.T.0.1ml 1:1000	ETED 18X20mm									
C.7. Titer	Neg	29Oct62	Titer	1:160									
C7 Titer	neg.	29Oct62	SK.T.0.1ml 1:1000	ETED 6X10mm									
C.7. Titer	neg.	14May63	Titer	1:80									
C7 Titer	Neg.	14May63	SK.T.0.1ml 1:1000	ETED 8X14mm									
		18Nov63	Titer	1:80									
		18Nov63	SK.T.0.1ml 1:1000	Neg									
		4May64	Titer	1:80									
		4May64	SK.T.0.1ml 1:1000	ETED 4X6mm									
		12Oct64	Titer	1:160									
Histo		12Nov64	SK.T.0.1ml 1:1000	Very ETED 6X15mm									
Total 14100	3+3+	16Nov64	Titer	1:80									
Pos.	2+1	24May65	Titer	1:40									
SK.T 0.1ml 1:1000	20X22	24May65	SK.T.0.1ml 1:1000	ETED 18X22mm									
Time (Histo)		27Nov65	Titer	1:80									
		27Nov65	SK.T.0.1ml 1:1000	ETED 4X10mm									
		2May66	Titer	1:40									
		2May66	SK.T.0.1ml 1:1000	ETED 25X34									

Influenza		Tetanus	
25Oct62	1.0 Type A+B	31Oct61	0.5ml Toxoid
		27Nov61	0.5ml Toxoid
		15Sept66	0.5ml Tet Toxoid

NK DOROTHY K. S.O.

JAN FEB | APR MAY | JUL AUG

CONSENT TO INOCULATION WITH EXPERIMENTAL BIOLOGICAL PRODUCTS

It has been explained to me that it is necessary for my safety and protection to be inoculated with certain biological products approved by the Army Investigational Drug Review Board but not yet approved by the Commissioner of Food and Drugs. Department of Health, Education and Welfare. I understand that the administration of these products will provide future additional evidence of their safety and usefulness.

I hereby consent to inoculation with any or all of the following biological products to include the initial series and booster immunizations as required:

1) Venezuelan Equine Encephalomyelitis Vaccine, Live, Attenuated.
2) Live Tularemia Vaccine.
3) Anthrax Vaccine (non-viable), aluminum hydroxide adsorbed.
4) Botulinum Toxoid, Types A B C D E, aluminum phosphate adsorbed.
5) Tularemia Skin Test Antigen.
6) Rift Valley Fever Virus Vaccine.
7) Q Fever Vaccine
8) Eastern Equine Encephalomyelitis Vaccine.
9) Western Equine Encephalomyelitis Vaccine.

WITNESSES.

21 May 1961 _____ _____
(Date) (Signature) (Signature)

21 May 1965 _____ _____
(Date) (Signature) (Date)

SMUFD FORM 8 Rev.
May 65

SPECIAL PROC URES RECORD Wark, Norbert

TULAREMIA
Ab

7 Nov 66	Titer	1:40
7 Nov 66	Sk T. 0.1 ml 1:1000	Eten. 25x24
15 May 67	Titer	1:40
15 May 67	Sk T. 0.1 ml 1:1000	Eten. 25x30
20 Nov 67	Titer	1:80
20 Nov 67	Sk. T 0.1 ml 1:1000	Eten. 18x18

6/18/65 Temp. 97 Pulse 76
Improved: All sx subsided. Sl. headache only. No complaints.
Used 3 Darvons only. No GU sx.
P.E.: Throat - N.R.
No cervical adenopathy
Imp.: Same
Rx.: As given
Home

EXPOSURE
8/12/65 Individual had an exposure to Beta-propiolactone in Bldg. 560.
Accidental decontamination procedures without clearing individuals from the area.
(Informed this office via phone)
Lacrimation & irritation of eyes.
Rx.: Observation

9/16/65 Temp: 98.2 Pulse: 88
Rhinorrhea, clear. Pruritis of eyes
Imp.: Allergic rhinitis
Rx.: Ornade b.i.d.
Duty

6/2/66 Temp: 98.6 Pulse: 88
Sneezing - sore throat Thursday. Rhinorrhea. No cough.
P.E.: Throat - slight injected
Neck - N.R.
Imp.: Viral URI
Rx.: Emprazil
Cepacol
Duty

3/3/67 Temp.: 99.2 Pulse: 88
Cold - 2 days. Stuffy nose, rhinorrhea, yellow. Sneezing - lacrimation. Cough, productive of yellow sputum. Headache and neck ache and stiffness. Slight fever. Secretary.
P.E.: Throat - mod. pallor and edema.
No cervical adenopathy
Imp.: Coryza
Rx.: Emprazil (36)
P.E.M. (4 oz.)
Duty

3/6/67 Rx.: P.E.M. (4 oz.)
Duty

5/67 did not report for May 67 Chest X-ray screening.

1/18/65 Temp. 97.4 Pulse 80
Cold - onset 3 days. Rhinorrhea, yellow. Sore throat. Cough - non-productive. Slight headache.
Px: Throat - Mild inflam. and ed. No cerv. aden.
Imp: Coryza
Rx: Emprazil (18)
Privine HCl 0.1%
E.T.H. with codeine (4 oz.)
Duty

1/20/65 Temp. 97.4 Pulse 84
Head still stuffy. Min. cough. Marked malaise.
P.E.: Throat - mild inflammation and edema. No cervical adenopathy
Imp.: Coryza
Rx.: Emprazil (18)
Tetracycline 250 mg q.i.d. x4
Duty

5/5/65 Recheck x-ray of chest compared with film taken on 3 Sept 64 shows no significant change.

5/17/65 Temp. 100.6 Pulse 110
Chills - 4 hrs. ago. Feverish. Headache. Gen. aches, muscles. Mild nausea - no vomiting. No coryzal sx. Hoarseness (painting in 560) Secretary in Building. No cough. Sl. dizziness - 12 hrs. ago. No shots recently. Marked weakness.
P.E.: Throat - pallor & mod. edema
No cervical adenopathy
Imp.: Grippal syndrome
Rx.: Darvon comp. (18)
Home

LAB - WBC: 14,700
DIFF: N 60, Bands 15, L 22, M 3
HEMAT: 40
HGLO: 11.8
SED RATE: 21 CSR: 19
CRP: Negative

URINALYSIS - Color app: Light yellow - hazy
Reaction: 6.0
Spec. gravity: 1.009
Albumin: Neg
Sugar: Neg
Microscopic: 0-1 WBC/HPF
10-25 EPI/HPF
SEDIMENT/moderate urates
Heavy bacteria

continued 9/3/64
WBC: 7600
DIFF: N 51, L 48, E 1
SED RATE: 10
HEMAT: 42
HGLO: 12.4

9/9/64 Temp. 99 Pulse 100
Coryza-like Sx. No chills or fever.
P.E.: Throat - clear
Imp.: Coryza
Rx.: Emprazil 2 q.i.d.
Duty

10/30/64 Sore in mouth for 5 days.
P.E.: Ulceration on inner aspect of lower lip.
Imp.: Probable herpes
Disp.: $\frac{1}{2}$ H_2O_2 wash
Viscous xylocaine
Mycostab

12/11/64 Temp. 98 Pulse 96
Onset - throat soreness and thickness. Nausea. Chills, mild. No stuffy nose or rhinorrhea. Headache, front, mod.
P.E.: Throat - lymphoid hyperplas. post pharynx. Pallor and sl. edema. No cervical adenopathy.
Imp.: Incipient coryza
Rx.: Emprazil (18)
Privine HCl 0.1% ($\frac{1}{2}$ oz)
Duty

Throat culture (pred flora) Heavy growth of alpha Strept,
heavy growth of Neisseria,
Few colonies of gamma Strept.

10/24/63 continued:

WBC: 10,200
DIFF: N 68, Bands 1, L 25, M 4, E 1, Baso 1
SED RATE: 10
HEMAT: 38
HGLO: 12.1
CRP: Neg

Heterophile aggluts: No titer

10/25/63 Doing much better. Sore throat is less.
Rx.: Same
Recheck Monday
Duty

4/24/64 Temp. 98.6 Pulse 88
Non productive cough. Sl. rhinorrhea. No sore throat. Yellowish nasal drainage. No chills, fever or aches. Onset 24 hrs. Secretary - Eigelsbach.
P.E.: Throat - not remarkable
No cervical adenopathy
Imp.: Coryza
Rx.: Pbz Exp Mix (4 oz)
Emprazil
Duty

4/28/64 Pyribenzamine exp mix Disp
Sig ZI or II q 3-4 hr for cough

8/24/64 Recheck x-ray of the chest compared with film dtd 18 June 63 shows no sig. change. Kadull

9/3/64 Temp 98.2 P 80
Cough - sore throat - malaise. Some chest pain & aching.
P.E.: Chest - many fine rhonchi
Imp.: Plurisy - bronchitis
Rx.: Novahistine
Achromycin 250 mg q 4 hr
Duty

Chest X-ray Recheck x-ray of the chest compared with film taken on 24 August 1964 shows no significant change.

C.B.C. Hughes

1/17/63 Temp. 99 Pulse 72
Coughing, coryza, for 5-6 days. No chills or fever. No shots or exposures.
P.E.: Throat and chest clear
Imp.: Coryza
Rx.: Novahistine 2 tsp q.i.d.
Home

6/18/63 Recheck x-ray of the chest compared with the film taken on 25 May 62 shows no significant change.

10/22/ Temp. 97.6 Pulse 80
Sore throat - onset P.M. of 10-21-63. No coryzal symptoms. No chills or fever
No aches.
P.E.: Throat - pallor - no exudate - mod edema
Cerv nodes - ant - enlarged, non tender
Imp.: Incipient coryza
Rx.: Darvon compound I or II q 6 hr (10)
Tracinets q 3 hr (12)
Warm salt water gargle
Duty

Throat culture (for beta strept)

Heavy alpha strept, heavy neisseria, mod gamma strept

10/23/63 Temp. 98 Pulse 76
Sore throat - aching and tightness in the throat.
P.E.: Throat - sl red
Imp.: Viral pharyngitis
Rx.: Same
Duty

10/24/63 Temp. 98.4 Pulse 84
Sore throat, nausea, vomited one time. No chills or fever, but cough.
P.E.: Throat-red vesicles
Imp.: Viral pharyngitis
Rx.: Achromycin 250 mg q 6 hr
Novahistine
Home

8/6/62
LAB TESTS RUN:

WBC 4,800
DIFF N 39, Bands 4, L 56, M 1
HEMAT 40
HGLO 12.9
TOTAL RBC 4,300,000

8/7/62 Will consider a repeat RBC and HGLO as well as WBC, etc., in about 2 weeks.

8/21/62 In for repeat blood count. Has been feeling fairly well - except for persistent tiredness.
Rx.: No Rx.
Duty

LAB: WBC 6,750
DIFF N 35, Bands 2, L 61, Mono 2
HEMAT 40
HGLO 12.3
TOTAL RBC: 3.95

8/24/62 Feeling of tiredness may be due to borderline(?) anemia or mild case of infectious mononucleosis
Imp: Borderline anemia
Rx.: Ferrosquels
Duty
LAB: Heterophile Aggluts: NEGATIVE

9/7/62 No significant change.
Rx.: Continue medication as given by Dr. Hughes "Ferrosquels?"
Will obtain repeat RBC, Hglo, Hemat in about 3 weeks.
Duty

9/14/62 Rx.: Ferrosquels #30
Sig. T. b.i.d.

2/1/60 cont. Imp: [illegible] Cold
Rx: Neosynephrine 0.5%
Novahistine with APC q.i.d. x5 days
Cheracol with Codeine 5 cc. q 3 hrs. p.r.n.
Return two days follow-up.
Duty

LAB:		
	WBC	12,250
	DIFF	N 61, L 22, M 2, E 1, Baso 2, Bands 12
	SED. RATE	9
	HEMAT	42
	CRP	Negative

Chest film (PA): Recheck x-ray of the chest compared with the film taken on 25 August 1959 shows no significant change.

2/4/60 Temp. 98.6 Pulse 92
Much improved. Afebrile. Only complaint today is constipation for past five days. Also states that IMD advised "blood counts" be taken 3-4 times a year to check on iron deficiency anemia.
Rx: MOM 30 cc. H.S. p.r.n.
Duty

LAB:		
	RBC	4.65
	HGLO	13.5
	HEMAT	42%

7/28/60 Temp. 98.6 Pulse 76
Sorethroat - chest tight. Onset this A.M. Sneezing. No cough, chills or fever.
P.E. Throat - edematous palate and uvula.
Imp: Incipient Common Cold
Rx: Demazin q.i.d. x4
PAC q.i.d. x4
Duty

5/8/61 Recheck x-ray of the chest compared with the film taken 1 February 1960 shows no significant change.

5/25/62 Recheck x-ray of the chest compared with the film taken on 8 May 1961 shows no significant change.

8/6/62 Temp. 98.4 P. 88
Light- headed, dizziness this A.M. Felt well except for two severe headaches. No nausea or diarrhea. Period just being completed. Periods regular -- of normal duration and quantity. Slight onset of headachy symptoms.
P.E.: B.P. 112/78
Pulse 72 (regular)
Imp: Post-menstrual syncope
Rx.: Observe

Home

5/9/56 Temp. 98.4 Pulse 80 BP 118/80 Wt. 116
Sore throat of 3 days duration. No stuffy nose. Chills and fever 24 hours ago. Pains in chest on breathing. Tightens up at night with cough, essentially non-productive.
Working in T-110. Works with , and . - no "hot" agents.
P.E. Throat, mildly injected. No cervical adenopathy.
Rx: - PPA 600,000 units once daily x 3.
PAC and Chlortrimeton 8-12-4-8
E.T.H. with Codeine.
Duty

5/10/56 Soreness at site of injection of pencillin - generalized eruption with itching.
P.E. DErmatitis - generalized with pruritis (penicillin reaction).
Rx: -Chlortrimeton 4 mg. q.i.d.
Duty

8/25/59 Temp. 98.8 Pulse 96
Twenty-six-year-old white female well until last night noted sudden onset of dull, aching, frontal and retrobulbar headache; generalized muscular soreness. Loose, watery stools (no melena) x6, anorexia, generalized malaise, and nausea. Also has some vague tightness of ant. chest, but no pharyngitis, cough, or S.O.B.
Is working in "hot" area now. (Bldg. 1412) Has not been exposed to classified organisms to best of patient' knowlege. No fever, chills, or emesis.
P.E. HEENT--Within normal limits.
Lungs--Clear to P&A
Imp: Gastroenteritis, viral etiology?
Rx: Kaopectate and paregoric 1:1 5 cc. after each loose B.M.
PAC tabs 1 to 2 q 4 hrs. prn
Home

LAB:

WBC	9,550
DIFF	N 66, L 18, M 4, E 0, Baso 1, Bands 11
SED. RATE	8
HEMAT	44

Serum for acute phase influenza:

X-ray of chest (PA & Lateral): Recheck x-ray of the chest compared with the film taken on June 24, 1959 shows no significant change.

2/1/60 Temp. 99 Pulse 88 BP. 114/68 Wt. 124
Rhinorrhea, nasal stuffiness, slight frontal headache for the past three days. Last night had dry, irritating, non-productive cough. This A.M. has "scratchy" sorethroat attributed to coughing. On clean side of Bldg. 1412 working as secretary. No known exposure to classified organisms.
P.E. ENT -- Edematous, injected nasal mucosa; serous discharge present. Pharynx N.R.
Neck -- Supple. No masses or tenderness
Lungs -- Clear to P&A

CHRONOLOGICAL EVENTS INCLUDING VICTIMS WHO HAVE DIED FROM CANCER

1943 - 1969	Fort Detrick is nation's center for offensive and defensive biological warfare research
1948	Donald Hildebrand died from cancer
1948	Mildred Hanshaw died from cancer
1950's	Nerve gas was tested adjacent to Clover Hill
1950 - 1960	U.S. Public Health Service maintains an office in the same building as Fort Detrick Crops Division and served Army Chemical Corps personnel at both Fort Detrick and Edgewood. Osheroff Tr. 14-16, 19-20 (A1900, A1902-1904). All had access to the same information about health issues with the manufacture of 2,4,5-trichlorophenol and 2,4,5-T. (Hoffman Brief for Appellees.PDF)
1951	Cows died
1951 - 1970	Building 527 (8 Ball) aerobiological studies of pathogenic agents
1953	Fort Detrick and Dow Chemical developed and created Agent Orange. They knew it caused chloracne
1954	Maurice Blank died from cancer
1954	Charles Rice died from cancer
1956	Donald Hayes died from cancer
1957 - 1967	Human testing on workers subjected to weekly injections of exotic tropical diseases without their knowledge
1958	Claude Clemson died from cancer
1959	Dr. Friedrich Hoffman, a chemical warfare specialist and chief ot the U.S. Army's Chemical Corp Agents Research Branch at Edgewood Arsenal made government aware that 245T contained dioxin (Ref.page 61) Stephensen Brief for Appellees.PDF
1959	Dorothy Putman died from cancer
1960's	Spraying from a biochemical simulation release tower and aerial spraying in the grid areas
1960 - 1970	Clouds of smoke from burning pits blowing through the neighborhood
1962	James Flood died from cancer
1963	Three Edgewood Arsenal personnel assigned to the Wheldon Springs Project knew that dioxin could be formed in the 2456T production process and met with Stearns-Roger personnel at Edgewood and in Denver in April 1963 (ref 2/4/2005 Caley Decl., Ex. 2 (cox. Tr.) at 38.45.68 (A1594096),(Ref.page 61) Stephensen Brief for Appellees.PDF
1964	Danner died from cancer
1966	Emma Samaritan died from cancer
1966	Howard Despeaux died from cancer
1966	Brandenburg died from cancer
1967	William Millhouse died from cancer
1967	Patricia Korrell died from cancer
1967	Samaritan Stitely died from cancer
1967	William Strobel died from cancer
1969	Harvey Whipp died from cancer
1969	Prohibition of the use of chemical and biological weapons
1970	Rose Hart died from cancer
1970 - 1971	Decontamination and certification program was completed
1972	Louise Johnson died from cancer
1972	Francis Fox died from cancer
1972	Ricky Korrell died from cancer

1972	Donald Rice died from cancer
1972	Butch Rice died from cancer
1972	Patricia Davis died from cancer
1973	Jonathan Abelow died from cancer
1974	William Hildebrand died from cancer
1975	Gordon Black died from cancer
1975	Maurice Ramsburg died from cancer
1976	Frank Clemson died from cancer
1976	Claude Blank died from cancer
1976	Roy Kline, Jr. died from cancer
1976	Ken Rice died from cancer
1976	Bernard Rice died from cancer
1976	Clarence Thomas died from cancer
1977	Michel Guariglia died from cancer
1977	Betty Whipp died from cancer
1977	Grayson Rice died from cancer
1978	Julia Clemson died from cancer
1978	Elwood McKenzie died from cancer
1978	Lewis Rice died from cancer
1978	Joseph Orndorff died from cancer
1978	Harry Schmidt died from cancer
1979	Richard Delaughter Sr died from cancer
1980	Freida McComas died from cancer
1980	Richard Cowen died from cancer
1980	George Clark died from cancer
1980	Holton Staley died from cancer
1981	Sharon Boone died from cancer
1981	Charles Cramer died from cancer
1981	Charles Palm, Sr. died from cancer
1981	Pat Sabine died from cancer
1981	Karen Reeder died from cancer
1981	Thomas Taylor died from cancer
1981	Larry Campbell died from cancer
1981	Paul Shatto died from cancer
1981	Margaret Stevens died from cancer
1981	Edward Dudderor died from cancer
1981	Freida McComas died from cancer
1982	Lindsay Wyatt died from cancer
1982	Clifford Stitely died from cancer
1982	Mary Winpigler died from cancer
1982	Jennifer Eyre died from cancer
1982	Edwin Alexander died from cancer
1982	Frank Wachter died from cancer
1982	Lee Miller died from cancer
1983	Charles Schultz died from cancer

1983	Lorraine Wolf died from cancer
1983	Henry Auth II died from cancer
1983	Joseph Jounen died from cancer
1983	Martha Fowler died from cancer
1983	Ismay Wars died from cancer
1984	Mildred Zern died from cancer
1984	Ray Talbott Jr died from cancer
1984	Lydia Garcia died from cancer
1984	Mignon Sanger died from cancer
1984	Charles Quintal died from cancer
1984	Paul Rice died from cancer
1984	Earl Hargett, Sr. died from cancer
1984	Russell Cline died from cancer
1984	Ruth Hooper died from cancer
1984	Ophelia Bussard died from cancer
1984	Ronald McComas died from cancer
1985	Ronald McComas died from cancer
1985	Francis Hutto died from cancer
1985	Col Theodore Wyatt died from cancer
1985	Marie Danner died from cancer
1985	William Wickless died from cancer
1985	John McEntee died from cancer
1985	Harry Krantz died from cancer
1986	William Davis died from cancer
1986	Roger Shaw died from cancer
1986	Linda Palmer died from cancer
1986	Fred Stoneham died from cancer
1987	Sheila Barting died from cancer
1987	Kim Kehne died from cancer
1987	Barbara Bruchey died from cancer
1987	Elizabeth Brandenburg died from cancer
1987	Eric Horst died from cancer
1987	Army discovered TCE in a production that currently supplies Building 568 in Area A
1988	William Faith died from cancer
1988	Charles Rice died from cancer
1988	Gloria Horst died from cancer
1988 - 1995	Kristen Renee White Hernandez lived at 377 W Thornhill Place Frederick, MD
1989	Lined permitted sanitary landfill was installed for Fort Detrick municipal waste
1989	Florence Pastore died from cancer
1989	Walton Wolf died from cancer
1989	Virginia Wickless died from cancer
1989	Bernard Little died from cancer
1989	Bobbie Thompson died from cancer
1989	Phyllis Silliman died from cancer
1989	Orvis Staley died from cancer

1990	Construction of the lined landfill was completed over top of portions of the older landfill, and waste disposal transitioned from the unlined landfill to the lined landfill. a cap was completed on the existing
1990	Maurice Reed died from cancer
1990	Robert Gumphrey died from cancer
1990	Robert Undersack died from cancer
1990	Harold Hollinger died from cancer
1990	Janice Long died from cancer
1991	Army detected chlorinated solvents in one on-post monitoring well
1991	Elaine Staley died from cancer
1991	Margret Jones died from cancer
1991	Martha Lynch died from cancer
1991	Roscoe Masser died from cancer
1991	Richard Masser died from cancer
1991	C Brandenburg died from cancer
1991	Helen Krantz died from cancer
1991	Phyllis Wachter died from cancer
1992	Gale Cook died from cancer
1992	MDE conducted residential well survey, Three wells on Montevue Lane had Trichloroethylene above 5 ppb (existing MCL) Maximum Contaminant Level. Prior to 1992, Fort Detrick had maintained that there were no residential wells present around or near Area B
1992	Virgie Main died from cancer
1992	Francis Kline died from cancer
1992	Helen Githerman died from cancer
1992	Thomas Paolini died from cancer
1992	Madeline Cannon died from cancer
1992	Betty Brandenburg died from cancer
1992	Howard Dinterman died from cancer
1992	Patty Pollatos died from cancer
1992	C Suzanne Medwich died from cancer
1992	Sylvia Bennett died from cancer
1992	Thomas Paolini died from cancer
1992	Helen Clingan died from cancer
1993	Fort Detrick was issued 39 citations by the Maryland Department of Environment
1993	Gladys Rentzell died from cancer
1993	Maureen Hess died from cancer
1993	Margaret Davis died from cancer
1993	Addie Palm died from cancer
1993	George Goines died from cancer
1993	Akiko Izumoto died from cancer
1993	Mary Riley died from cancer
1993	Mildred Reddecliff died from cancer
1993	Evelyn Alexander died from cancer
1993	Katherine Kemp died from cancer
1994	Alfred Myers died from cancer
1994	Paul Roberson died from cancer
1995	Residential Well 18 on Kemp Road was reported to have a contaminated groundwater at 1.6 ug/L PCE – The first reported on Kemp Road

1995	Marlene Foreman died from cancer
1995	Russell Baker died from cancer
1995	Jessie Dwyer died from cancer
1995	William Miss died from cancer
1995	Tom Bruening died from cancer
1995 - 1998	Kristen Renee White Hernandez lived at 219 Lake Coventry Drive, Frederick, MD
1996	Bernard Wetzel died from cancer
1996	Paul Huber, Sr. died from cancer
1996	Charles Shuff died from cancer
1996	Leonard Diggs Sr died from cancer
1997	Lawrence Powell died from cancer
1997	Ruth Wiles died from cancer
1997	Margaret Russell died from cancer
1997	Daniel Haynos died from cancer
1997	Bertha Jacobs died from cancer
1997	William Hammond died from cancer
1997	Robert Custer died from cancer
1997	Albert Coates died from cancer
1998	Sampling of both ground and surface water with significant elevations of TCE and PCE on and adjacent to B-11 Trench
1998	Water towers in Area A had been painted with lead paint- lead based paint got into soil, groundwater area (Rab minutes sept 1998)
1998	Resident Mr. Crum complains of his well contamination and is put on Army's water system, not city water (Rab minutes sept 1998)
1998	Ollie Windsor died from cancer
1998	Anthony White died from cancer
1998	Mary Moschel died from cancer
1998	George Biser died from cancer
1998	Leroy Jennings, Jr died from cancer
1998	Roberta Greenhouse died from cancer
1998	Kathleen Lantz died from cancer
1998 - 2001	Kristen Renee White Hernandez lived at 1421 Key Parkway, Frederick, MD
1999	Ashley Tamburri died from cancer
1999	James Jones died from cancer
1999	Joyce White died from cancer
1999	Leidy Zern, Jr. died from cancer
1999	Irene Sanbower died from cancer
1999	Olive Garrett died from cancer
1999	Robert Perry died from cancer
1999	Carmen Donovan died from cancer
1999	Albert McCracken died from cancer
1999	Isabel Showe died from cancer
1999	Ed Kinsey died from cancer
1999	Darell Putman died from cancer
1999	Leonard Thompson died from cancer
1999	William Hurwitz died from cancer
1999	Joan Cariola died from cancer

1999	Sarah Eyler died from cancer
2000	James Keeney died from cancer
2000	Catherine Cook died from cancer
2000	Joseph Pastore died from cancer
2000	James Creager died from cancer
2000	George Hutto died from cancer
2000	Raymond Sanbower died from cancer
2000	Edward Fogle died from cancer
2000	Raymond Crouse died from cancer
2000	Linda Rodriguez died from cancer
2000	Linda Rodriguez died from cancer
2000	Evelyn Schlidt died from cancer
2000	Diane Bohn died from cancer
2000	Pau Rice, Jr. died from cancer
2000	Marvin Spencer died from cancer
2000	Austin Kemp, Sr. died from cancer
2000	Edward Kauffman, Sr. died from cancer
2000	Marilyn Hurwitz died from cancer
2000	Patricia King died from cancer
2000	Angela Eyre died from cancer
2000	Edgar Main died from cancer
2000	Shirley Dow died from cancer
2000	Constance Chapple died from cancer
2000	Mary Smith died from cancer
2000	Linda Rodriguez died from cancer
2001	Carney Hayes died from cancer
2001	Helen Blank died from cancer
2001	Eileen Rose died from cancer
2001	Millard Mastrino died from cancer
2001	Ronald Smith died from cancer
2001	Franklin Norris died from cancer
2001	Helen Biser died from cancer
2001	Patricia Pearson died from cancer
2001	James Bowers died from cancer
2001	Elmer Cheeks died from cancer
2001	Rebecca Peddicord died from cancer
2001	Sandy Cuskic died from cancer
2001	Elizabeth Walker died from cancer
2001	Bryant Aylor died from cancer
2001	John McAleavy died from cancer
2001	Mary Hartman died from cancer
2001	Shirley Brobst died from cancer
2001	Margaret Rawson died from cancer
2001	Mike Schappel died from cancer
2001	Catherine Danner died from cancer

2001	Feasibility study was performed to assess remedial alternatives to Area A groundwater proposed plan
2001	Intentional release of anthrax used in mail attacks
2001 - 2003	Kristen Renee White Hernandez lived at 219 Lake Coventry Drive, Frederick, MD
2002	Researcher and worker tested positive for anthrax exposure due to two leaks
2002	Robert Thomas Sr. died from cancer
2002	Naomi Myers died from cancer
2002	Mark Donnelly died from cancer
2002	Robert Fishack died from cancer
2002	Wayne Millberry, Sr. died from cancer
2002	Nancy Moss died from cancer
2002	Joseph Athey died from cancer
2002	Sharon Covey died from cancer
2002	Joan Raffensberger died from cancer
2002	Evelyn Johnson died from cancer
2002	James Fox died from cancer
2002	Ronald Ward died from cancer
2002	Charles Woodward died from cancer
2003	Evidence of weapons of mass destruction including 100 vials of anthrax and other dangerous bacteria were dug up
2003	Keith Myers died from cancer
2003	Dorsey Bryan died from cancer
2003	Leroy Droddy died from cancer
2003	Rudolph Guariglia died from cancer
2003	Sandra Green died from cancer
2003	Walter Bottcher died from cancer
2003	Gerald Pinewski, Jr. died from cancer
2003	Anne Gill died from cancer
2003	Louise Burgess died from cancer
2003	Velvet Denholm died from cancer
2003	Billy Weaver died from cancer
2003	Billy Baber died from cancer
2003	Marcia Fisher died from cancer
2003	Bernard Rice, Jr. died from cancer
2003	Janet Metzger died from cancer
2003	Helen Griffin died from cancer
2003	Doris Taylor died from cancer
2003	Marie Ann Noonan died from cancer
2003	Pauline Crum died from cancer
2003	William Rose died from cancer
2003	Roy Watts, Jr. died from cancer
2004	ARMA issued a NOV to Fort Detrick for non-compliance with the installation's Title V Part 70 Operating Permit
2004	James Witmer died from cancer
2004	Cats Wagner died from cancer
2004	Mary Adams died from cancer
2004	Helen Steinhaire died from cancer

2004	Winfred Mullins died from cancer
2004	Dr. Michael Berman died from cancer
2004	Gordan Greene died from cancer
2004	Helen Houck died from cancer
2004	Calvin Geisbert died from cancer
2004	Mary Ellen Adams died from cancer
2004	Jane Neverosky died from cancer
2004	Robert Lloyd died from cancer
2004	Terry Palm died from cancer
2004	Kim Moore died from cancer
2004	Marjorie Rice died from cancer
2004	Rochelle Sandy died from cancer
2004	Charles Bartgis died from cancer
2004	Vernon Flook died from cancer
2004	George Randall died from cancer
2004	Jeannette Campbell died from cancer
2004	G Free died from cancer
2004	Geraldine Gladhill died from cancer
2004	Genevieve Gangawere died from cancer
2004	Jane Atema died from cancer
2004	Marilyn Freeland died from cancer
2004	Donna Zile died from cancer
2004	Lynn Eyre died from cancer
2004	Peggy Ligocki died from cancer
2004	Elizabeth Staley died from cancer
2004	Robert Weingarten died from cancer
2004	Michael Benson died from cancer
2004	Leroy Winpigler died from cancer
2005	Plume of soot accidently discharged from Building 190 Boiler Plant
2005	Fort Detrick generated a total of 0.3198 tons of HAPs - primary source incinerators, fuel storage and dispensing activities
2005	Jo Ann Lipps died from cancer
2005	Lorraine Hargett died from cancer
2005	Perry Olivieri died from cancer
2005	Nancy Lally died from cancer
2005	Jimmie Slemp died from cancer
2005	John Remsburg died from cancer
2005	Raymond Mills died from cancer
2005	Janice Blank died from cancer
2005	Cheri Moon died from cancer
2005	Donna Daugherty died from cancer
2005	Dog McGovern died from cancer
2005	Betty Cramer died from cancer
2005	Arlie Waltz died from cancer
2005	Randy Scott died from cancer
2005	Ronald Marshall died from cancer

2006	Kristen Renee White Hernandez was diagnosed with brain cancer
2006	Raymond Windsor, Sr died from cancer
2006	Nicholas Chumbris died from cancer
2006	Donald Lowe, Jr. died from cancer
2006	Barbara Morris died from cancer
2006	Randy Niles died from cancer
2006	Louis Calomeris died from cancer
2006	Rodney Roberson, Jr. died from cancer
2006	Anthony Mealo died from cancer
2006	Susan Mitts died from cancer
2006	Doug Campbell died from cancer
2006	Harvey Showe died from cancer
2006	Abdul Majeed died from cancer
2006	Lewis Garrett died from cancer
2006	Jean Bredini died from cancer
2006	Tom Gerovac died from cancer
2007	Maynard Ellis died from cancer
2007	Frances Shelhorse died from cancer
2007	Edelgard Droddy died from cancer
2007	Howard Dinterman, Jr. died from cancer
2007	Dr. Robert Moschel died from cancer
2007	Linda Phillips died from cancer
2007	Sally Murray died from cancer
2007	Jack Bennett died from cancer
2007	Mark Moss died from cancer
2007	John Bauer died from cancer
2007	George Edwards died from cancer
2007	Austin Kemp, Jr. died from cancer
2007	Marie Moxley died from cancer
2007	Diane Murphy died from cancer
2007	Thomas Miss died from cancer
2007	Cynthia Smith died from cancer
2007	Peggy Prevost died from cancer
2007	James Flohr Sr. died from cancer
2007	John Charity, Jr. died from cancer
2007	Richard Delaughter Jr died from cancer
2007	Marianne Damsteegt died from cancer
2007	L Hemp died from cancer
2007	Robert Miss died from cancer
2008	Maudella Payne died from cancer
2008	Baerbel Cooper died from cancer
2008	Betty Powell died from cancer
2008	Douglas Baker died from cancer
2008	Albert Siemek, Jr died from cancer
2008	Jeanette Remsburg died from cancer

2008	Lee Eury died from cancer
2008	Barbara Smith died from cancer
2008	Franki Sechler died from cancer
2008	Lester Jackson, Jr. died from cancer
2008	Joseph Reid died from cancer
2008	James Barrick died from cancer
2008	Frank Boyer died from cancer
2008	Cindy Deeter died from cancer
2008	Natalie Sappington died from cancer
2008	Joseph DePalma died from cancer
2008	Earl Tracey, Jr. died from cancer
2008	Sara Stup died from cancer
2008	Cat Bazan died from cancer
2008	Kristen Renee White Hernandez died from brain cancer
2008	Eva Pickett died from cancer
2008	Sophie Shepel died from cancer
2008	Robert Miller died from cancer
2008	Ruth Miller died from cancer
2008	Glenn Gincley died from cancer
2008	Dwayne Nicodemus died from cancer
2008	Mark Nicodemus died from cancer
2008	Brian Willier died from cancer
2008	Amanda Perrygo died from cancer
2008	Wilda Shafer died from cancer
2008	Sanford Blum died from cancer
2008	Raymond Purnell died from cancer
2008	Dorothy Hildebrand died from cancer
2009	Area B groundwater site was added to National Priorities List
2009	Tyler Condren died from cancer
2009	Kathleen Kelly died from cancer
2009	Jane James died from cancer
2009	Elizabeth Brokaw died from cancer
2009	Kenneth Barnause died from cancer
2009	Kathy Meagher died from cancer
2009	Arlene Carr died from cancer
2009	Kamran Medghalchi died from cancer
2009	Anna Brown died from cancer
2009	Eugene Bittle died from cancer
2009	Donald Laycock died from cancer
2009	Bob Souders died from cancer
2009	Gerry Souders died from cancer
2009	Julia Parker died from cancer
2009	Oliver Guariglia died from cancer
2009	Calvin Burns died from cancer
2009	James Wiley died from cancer

2009	Francis Duranko died from cancer
2009	Stephanie Weaver died from cancer
2009	Flo Townsend died from cancer
2009	Amy Neuls died from cancer
2009	Harold Martz, Jr. died from cancer
2009	John Andrukite died from cancer
2009	Helen Thompson died from cancer
2009	Gerald Falibota died from cancer
2009	Ron Turner died from cancer
2009	Dan Mack died from cancer
2009	Melvin Danner died from cancer
2009	Anita Joy died from cancer
2009	Vera Horine died from cancer
2009	Della Shatto died from cancer
2009	Joan Fazio died from cancer
2009	Mae Hopkins died from cancer
2009	Carlyne Rasberry died from cancer
2010	Federal Facility Agreement was signed between the DoD and USEPA and the State of Maryland, prompted by Senator Cardin providing a scope overseen by USEPA and funded by DoD, with enforceable penalties for non-compliance and cooperation
2010	Elizabeth Valenzuela died from cancer
2010	Richard Cramer died from cancer
2010	C S Godwin died from cancer
2010	Annie Campbell died from cancer
2010	Carol Dant died from cancer
2010	Charlotte Chamberlain died from cancer
2010	Mackenzie Stuck died from cancer
2010	Fred Smith died from cancer
2010	James Nichols died from cancer
2010	Louise White died from cancer
2010	Barbara Anderson died from cancer
2010	Armatha Shriner died from cancer
2010	Doris Hart died from cancer
2010	Mildred Eury died from cancer
2010	Mark Koehl died from cancer
2010	Debra Cross died from cancer
2010	Maximino Crespo died from cancer
2010	Margaret Nordhoff died from cancer
2010	Carmen Turner died from cancer
2010	Geraldine Krantz died from cancer
2010	Dorothy Unbertzagt died from cancer
2010	Fred Smith died from cancer
2010	Hazel Tregoning died from cancer
2010	Jackie White died from cancer
2010	Robert White died from cancer
2010	Sydney Foxwell died from cancer

2010	Mathew Schiavone died from cancer
2010	Reginald Monroe died from cancer
2010	Rebekah Stansberry died from cancer
2010	Cheri Clites died from cancer
2010	Ralph Gaver died from cancer
2010	William Patrick III died from cancer
2010	Stewart Frank died from cancer
2011	Thomas Maxwell died from cancer
2011	Anne Dickens died from cancer
2011	William Kent died from cancer
2011	Joseph Gruden died from cancer