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**INSTALLATION RESTORATION PROGRAM  
PHASE II - CONFIRMATION/QUANTIFICATION  
STAGE 2**

**VOLUME III**

**LUKE AIR FORCE BASE,  
ARIZONA**

**Roy F. Weston, Inc.  
West Chester, Pennsylvania 19380**

*JUNE 1988*

**FINAL REPORT FOR PERIOD SEPTEMBER 1986 TO JUNE 1988**

Approved for Public Release; Distribution is Unlimited

*PREPARED FOR:*

**HEADQUARTERS TACTICAL AIR COMMAND  
COMMAND SURGEON'S OFFICE (HQ TAC/SGPB)  
LANGLEY AIR FORCE BASE, VIRGINIA**

**UNITED STATES AIR FORCE  
OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY (USAFOEHL)  
TECHNICAL SERVICES DIVISION (TS)  
BROOKS AIR FORCE BASE, TEXAS 78235-5501**

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**WESTON**

**APPENDIX H  
LABORATORY ANALYTICAL DATA**



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APPENDIX H

LABORATORY ANALYTICAL DATA

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Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
Sewage Treatment Plant Effluent Canal	MW-101	VOCs	8612-396	H-13-14
		VOCs-Second Column Confirmation		H-18
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		Pesticides/PCBs		H-83
		O&G		H-92
		Nitrate/Nitrite		H-92
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		TOC		H-92
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Oil/Water Separator Canal	MW-102	VOCs	8701-484	H-45-46
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		O&G		H-98
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		-BNAs		H-75-78
		-Pesticides/PCBs		H-88-89
		-O&G		H-98
		-TOC		H-98
		-Metals		H-107

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Chemical Data Cross-Reference  
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Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-103	VOCs	8701-484	H-45-46
		VOCs-Second Column Confirmation		H-50
		BNAs		H-75-78
		Pesticides/PCBs		H-88
		O&G		H-98
		TOC		H-98
		Metals		H-107
		QA/QC-VOCs		H-45-46
		-BNAs		H-75-78
		-Pesticides/PCBs		H-88-89
		-O&G		H-98
		-TOC		H-98
		-Metals		H-107
POL Trenches and Lagoon	MW-104	VOCs	8612-374	H-1-2
		BNAs		H-51-52
		Pesticides/PCBs		H-79
		O&G		H-90
		TOC		H-90
		Metals		H-105
		QA/QC-VOCs		H-1-4
		-BNAs		H-51-52
		-Pesticides/PCBs		H-80-81
		-TOC		H-90
		-Metals		H-105



Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page	
POL Trenches and Lagoon	MW-105	VOCs	8612-374	H-1-2	
		VOCs-Second Column Confirmation		H-6	
		BNAs		H-51-52	
		Pesticides/PCBs		H-79	
		O&G		H-90	
		TOC		H-90	
		Metals		H-105	
		QA/QC-VOCs		H-1-4	
		-BNAs		H-51-52	
		-Pesticides/PCBs		H-81	
	-TOC	H-90			
	-Metals	H-105			
	MW-106		VOCs	8612-374	H-1-2
			BNAs		H-51-52
			Pesticides/PCBs		H-79
			O&G		H-90
			TOC		H-90
			Metals		H-105
			QA/QC-VOCs		H-1-4
			-BNAs		H-51-52
-Pesticides/PCBs			H-81		
-TOC			H-90		
-Metals	H-105				



Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
South Fire Training Area	MW-107	VOCs	8612-417	H-35-36
		VOCs-Second Column Confirmation		H-40
		BNAs		H-69
		Pesticides/PCBs		H-86
		O&G		H-95
		TOC		H-95
		Metals		H-106
		QA/QC-VOCs		H-35-38
		-BNAs		H-69-72
		-Pesticides/PCBs		H-86-87
	-O&G	H-95		
	-TOC	H-95		
	-Metals	H-106		
	MW-108	8612-402	VOCs	H-25-26
			VOCs-Second Column Confirmation	H-34
			BNAs	H-61-62
			Pesticides/PCBs	H-84
			O&G	H-93
			TOC	H-94
			Metals	H-105
QA/QC-VOCs			H-25-32	
-BNAs			H-65-68	
-O&G			H-93	
-TOC	H-94			
-Metals	H-105			

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Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page			
North and Current Fire Training Area	MW-109	VOCs	8612-387	H-7-8			
		BNAs		H-53			
		Pesticides/PCBs		H-82			
		O&G		H-91			
		TOC		H-91			
		Metals		H-103			
		QA/QC-VOCs		H-7-10			
		-BNAs		H-53-55			
		-Pesticides/PCB		H-82			
		-O&G		H-91			
		-TOC		H-91			
		-Metals		H-103			
				MW-110	VOCs	8612-387	H-7-8
					VOCs-Second Column Confirmation		H-12
					BNAs		H-53-54
Pesticides/PCBs	H-82						
O&G	H-91						
TOC	H-91						
Metals	H-103						
QA/QC-VOCs	H-7-10						
-BNAs	H-53-56						
-Pesticides/PCB	H-82						
-O&G	H-91						
-TOC	H-91						
-Metals	H-103						



Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-111	VOCs	8612-387	H-7-8
		VOCs-Second Column Confirmation		H-12
		BNAs		H-53-54
		Pesticides/PCBs		H-82
		O&G		H-91
		TOC		H-91
		Metals		H-103
		QA/QC-VOCs		H-7-10
		-BNAs		H-53-56
		-Pesticides/PCB		H-82
		-O&G		H-91
		-TOC		H-91
		-Metals		H-103
Base Production Wells	PW-1	VOCs	8612-402	H-29-30
		VOCs-Second Column Confirmation		H-34
		BNAs		H-63-64
		Pesticides/PCBs		H-85
		O&G		H-93
		TOC		H-94
		Radiological		H-99
		DBCP		H-101
		Metals		H-105
		QA/QC-VOCs		H-25-32
		-BNAs		H-65-67
		-O&G		H-93
		-TOC		H-94
		-DBCP		H-102
		-Metals		H-105



Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-4	VOCs	8612-396	H-13-14
		VOCs-Second Column Confirmation		H-18
		BNAs		H-57-58
		Pesticides/PCBs		H-83
		O&G		H-92
		TOC		H-92
		Radiological		H-99
		DBCP		H-100
		Metals		H-103
		QA/QC-VOCs		H-13-16
		-BNAs		H-57-60
		-O&G		H-92
		-TOC		H-92
		-DBCP		H-100
		-Metals		H-103
	PW-7	VOCs	8612-402	H-29-30
		VOCs-Second Column Confirmation		H-34
		BNAs		H-63-64
		Pesticides/PCBs		H-85
		O&G		H-93
		TOC		H-94
		Radiological		H-99
		DBCP		H-101
		Metals		H-105
		QA/QC-VOCs		H-25-32
		-BNAs		H-65-68
		-O&G		H-93
		-TOC		H-94
		-DBCP		H-102
		-Metals		H-105





Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-9	VOCs	8612-402	H-27-28
		BNAs		H-63-64
		Pesticides/PCBs		H-85
		O&G		H-93
		TOC		H-94
		Radiological		H-99
		DBCP		H-101
		Metals		H-105
		QA/QC-VOCs		H-27-32
		-BNAs		H-65-68
		-O&G		H-93
		-TOC		H-94
		-DBCP		H-102
		-Metals		H-105
	PW-10	VOCs	8612-402	H-27-28
		BNAs		H-65-66
		Pesticides/PCBs		H-85
		O&G		H-93
		TOC		H-94
		Radiological		H-99
		DBCP		H-101
		Metals		H-105
		QA/QC-VOCs		H-27-32
		-BNAs		H-65-68
		-O&G		H-93
		-TOC		H-94
		-DBCP		H-102
		-Metals		H-105



Chemical Data Cross-Reference  
Groundwater Samples, Round 1  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-11	VOCs	8612-402	H-29-30
		BNAs		H-65-66
		Pesticides/PCBs		H-85
		O&G		H-93
		TOC		H-94
		Radiological		H-99
		DBCP		H-101
		Metals		H-105
		QA/QC-VOCs		H-27-32
		-BNAs		H-65-68
		-O&G		H-93
		-TOC		H-94
		-DBCP		H-102
		-Metals		H-105



Chemical Data Cross-Reference  
Surface Water Samples, Round 1  
Luke AFB, Arizona

Site	Sample Number	Analytic Parameter	Lab Batch Number	Page
Oil/Water (O/W) Separator Canal	03-001	VOCs	8701-484	H-45-46
		Second Column Confirmation		H-50
		BNAs		H-75-76
		Pesticides/PCBs		H-88
		TOC		H-98
		O&G		H-98
		Metals		H-107
		QA/QC-VOCs		H-45-48
		-BNAs		H-75-78
		-Pesticides/PCBs		H-88-89
		-TOC		H-98
		-O&G		H-98
		-Metals		H-107



Chemical Data Cross-Reference  
Effluent Samples, Round 1  
Luke AFB, Arizona

Site	Sample Number	Analytic Parameter	Lab Batch Number	Page		
Sewage Treatment Plant (STP) Effluent Canal	02-001-001	VOCs	8612-396	H-13-16		
	through	Second Column Confirmation		H-18		
	02-001-003	BNAs		H-57-58		
		Pesticides/PCBs		H-83		
		Nitrate/Nitrite and TKN		H-92		
		TOC		H-92		
		O&G		H-92		
		Metals		H-103		
		QA/QC-VOCs		H-13-16		
		-BNAs		H-57-60		
		-Nitrate/Nitrite and TKN		H-92		
		-TOC		H-92		
		-Metals		H-103		
		02-002-001		VOCs	8612-402	H-25-26
		through		BNAs		H-61-62
		02-002-003	Pesticides/PCBs	H-84		
			Nitrate/Nitrite and TKN	H-93-94		
			TOC	H-94		
			O&G	H-93		
			Metals	H-105		
			QA/QC-VOCs	H-25-32		
			-BNAs	H-61-68		
			-Nitrate/Nitrite and TKN	H-93-94		
			-TOC	H-94		
			-O&G	H-93		
			-Metals	H-105		
		02-003-002 and 003	VOCs	8612-402	H-25-28	
		BNAs	H-61-64			
		Pesticides/PCBs	H-84			
		Nitrate/Nitrite and TKN	H-92			
		TOC	H-93-94			
		O&G	H-93			
		Metals	H-105			
		QA/QC-VOCs	H-25-32			
		-BNAs	H-61-68			
		-Nitrate/Nitrite and TKN	H-93-94			
		-TOC	H-94			
		-O&G	H-93			
		-Metals	H-105			



Chemical Data Cross-Reference  
Effluent Samples, Round 1  
Luke AFB, Arizona

Site	Sample Number	Analytic Parameter	Lab Batch Number	Page
	02-003-001	VOCs	8612-433	H-41-42
		BNAs		H-73-74
		Pesticides/PCBs		H-87
		Nitrate/Nitrite and TKN		H-96-97
		TOC		H-96
		O&G		H-96
		Metals		H-106
		QA/QC-VOCs		H-41-42
		-BNAs		H-73-76
		-Nitrate/Nitrite and TKN		H-96-97
		-TOC		H-96
		-O&G		H-96
		-Metals		H-106



Chemical Data Cross Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
Sewage Treatment Plant Effluent Canal	MW-101	VOCs	8701-578	H-119-120
		VOCs Second Column Confirmation		
		BNAs	8701-569	H-121H-122
		Pesticides/PCBs	8701-578	H-131
		O&G	8701-578, 8701-569	H-136, H-138
		TOC		H-136, H-138
		Nitrate/Nitrite		H-138
		TKN		H-138
		Metals		H-173, H-162
		QA/QC-VOCs	8701-578	H-119-120
		-BNAs	8701-569	H-121H-126
		-Pesticides/PCB	8701-578	H-131
		-O&G	8701-578, 8701-569	H-136
		-Metals		H174-182, H-166-172
		-Nitrate/Nitrite		H-138
-TKN		H-138		
Oil/Water Separator Canal	MW-102	VOCs	8701-561	H-114-115
		BNAs		H-121D-121E
		Pesticides/PCBs		H-130
		O&G		H-135
		TOC		H-135
		Metals		H-152
		QA/QC-VOCs		H-114-115
		-BNAs		H-121F-121G
		-O&G		H-135
		-TOC		H-135
		-Metals		H-155-161



Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-103	VOCs	8701-561	H-114-115
		BNAs		H-121D-121E
		Pesticides/PCBs		H-130
		O&G		H-135
		TOC		H-135
		Metals		H-152
		QA/QC-VOCs		H-114-115
		-BNAs		H-121F-121G
		-O&G		H-135
		-TOC		H-135
		-Metals		H-155-161
POL Trenches and Lagoon	MW-104	VOCs	8701-554	H-110-111
		BNAs		H-121-121A
		Pesticides/PCBs		H-129
		O&G		H-137
		TOC		H-137
		Metals		H-143
		QA/QC-VOCs		H-108-113
		-BNAs		H-121-121
		-Pesticides/PCB		H-129-130
		-O&G		H-137
		-TOC		H-137
		-Metals		H-144-151

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Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-105	VOCs	8701-561	H-116-117
		VOCs-Second Column Confirmation		H-118
		BNAs		H-121D-121E
		Pesticides/PCBs		H-130
		O&G		H-135
		TOC		H-135
		Metals		H-153
		QA/QC-VOCs		H-114-117
		-BNAs		H-121F-121G
		-O&G		H-135
		-TOC		H-135
		-Metals		H-155-161
	MW-106	VOCs	8701-561	H-116-117
		VOCs-Second Column Confirmation		H-118
		BNAs		H-121D-121E
		Pesticides/PCBs		H-131
		O&G		H-135
		TOC		H-135
		Metals		H-154
		QA/QC-VOCs		H-114-117
		-BNAs		H-121F-121G
		-O&G		H-135
		-TOC		H-135
		-Metals		H-155-161

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Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
South Fire Training Area	MW-107	VOCs	8701-554	H-108-109
		BNAs		H-121-121A
		Pesticides/PCBs		H-129
		O&G		H-137
		TOC		H-137
		Metals		H-142
		QA/QC-VOCs		H-108-113
		-BNAs		H-121-121C
		-Pesticides/PCB		H-129-130
		-O&G		H-137
	-TOC	H-137		
	-Metals	H-144		
	MW-108	VOCs	8701-561	H-116-117
		BNAs		H-121D-121E
		Pesticides/PCBs		H-131
		O&G		H-135
		TOC		H-135
		Metals		H-154
		QA/QC-VOCs		H-114-117
		-BNAs		H-121F-121G
-O&G		H-135		
-TOC		H-135		
-Metals	H-155-161			

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Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page			
North and Current Fire Training Area	MW-109	BNAs	8701-569	H-121H-122			
		Pesticides/PCBs		H-132			
		O&G		H-138			
		TOC		H-138			
		Metals		H-164			
		QA/QC-BNAs		H-123-126			
		-Pesticides/PCB		131-132			
		-O&G		H-138			
		-TOC		H-138			
		-Metals		H-166-172			
				MW-110	BNAs	8701-569	H-123-124
					Pesticides/PCBs		H-132
					O&G		H-138
TOC	H-138						
Metals	H-165						
QA/QC-BNAs	H-123-126						
-Pesticides/PCB	H-132						
-O&G	H-138						
-TOC	H-138						
-Metals	H-166-172						

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Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-111	VOCs	8701-561	H-114-115
		VOCs-Second Confirmation		H-118
		BNAs		H-121D-121E
		Pesticides/PCBs		H-130
		O&G		H-135
		TOC		H-135
		Metals		H-153
		QA/QC-VOC		114-117
		-BNAs		H-121F-121G
		-O&G		H-135
		-TOC		H-135
		-Metals		H-155-161
Base Production Wells	PW-1	VOCs	8701-554	H-108-109
		BNAs		H-121-121A
		Pesticides/PCBs		H-129
		O&G		H-137
		TOC		H-137
		Radiological		H-139
		DBCP		H-140
		Metals		H-141
		QA/QC-VOC		H-108-113
		-BNAs		H-121B-121C
		-O&G		H-137
		-TOC		H-137
		-DBCP		H-140
		-Metals		H-146-151



Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-4	BNAs	8701-569	H-121H-122
		Pesticides/PCBs		H-132
		O&G		H-138
		TOC		H-138
		Radiological		H-139
		Metals		H-163
		QA/QC-BNAs		H-123-126
		-O&G		H-138
		-TOC		H-138
		-Metals		H-166-172
	PW-7	BNAs	8701-569	H-121H-122
		Pesticides/PCBs		H-132
		O&G		H-138
		TOC		H-138
		Radiological		H-139
		Metals		H-163
		QA/QC-BNAs		H-123-126
		-O&G		H-138
		-TOC		H-138
		-Metals		H-166-172
	PW-9	BNAs	8701-569	H-123-124
		Pesticides/PCBs		H-132
		O&G		H-138
		TOC		H-138
		Radiological		H-139
		Metals		H-165
		QA/QC-BNAs		H-123-126
		-O&G		H-138
		-TOC		H-138
		-Metals		H-166-172



Chemical Data Cross-Reference  
Groundwater Samples, Round 2  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-10	BNAs	8701-569	H-121H-122
		Pesticides/PCBs		H-132
		O&G		H-138
		TOC		H-138
		Radiological		H-139
		Metals		H-164
		QA/QC-BNAs		H-123-126
		-O&G		H-138
		-TOC		H-138
		-Metals		H-166-172
	PW-11	VOCs	8701-554	H-108-109
		BNAs		H-121-121A
		Pesticides/PCBs		H-129
		O&G		H-137
		TOC		H-137
		Radiological		H-139
		DBCP		H-140
		Metals		H-141
		QA/QC-VOCs		H-108-113
		-BNAs		H-121B-121C
		-O&G		H-137
		-TOC		H-137
		-DBCP		H-140
		-Metals		H-146-151



Chemical Data Cross-Reference  
Surface Water Samples, Round 2  
Luke AFB, Arizona

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Site	Sample Number	Analytic Parameter	Lab Batch Number	Page
Oil/Water (O/W) Separator Canal	03-001	VOCs	8701-554	H-110-111
		BNAs		H-121-121A
		Pesticides/PCBs		H-129
		TOC		H-137
		O&G		H-137
		Metals		H-142
		QA/QC-VOCs		H-110-113
		-BNAs		H-121-121C
		-Pesticides/PCBs		H-129-130
		-TOC		H-137
		-O&G		H-137
		-Metals		H-146-151

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Chemical Data Cross-Reference  
Groundwater Samples, Round 3  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
Sewage Treatment Plant Effluent Canal	MW-101	VOCs	8701-724	H-199-202
		VOCs-Second Column Confirmation		H-206
		BNAs		H-217-218
		Pesticides/PCBs		H-224
		O&G		H-230
		TOC		H-230
		Nitrate/Nitrite		H-230
		TKN		H-230
		Metals		H-266
		QA/QC-VOCs		H-199-204
		-BNAs		H-217-220
		-Pesticides/PCBs		H-224-226
		-O&G		H-230
		-TOC		H-230
		-Nitrate/Nitrite		H-230
		-TKN		H-230
-Metals	H-271-274			
Oil/Water Separator Canal	MW-102	VOCs	8702-710	H-191-192
		VOCs-Second Column Confirmation		H-198
		BNAs		H-213-214
		Pesticides/PCBs		H-223
		O&G		H-229
		TOC		H-229
		Metals		H-256
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-O&G		H-229
		-TOC		H-229
		-Metals		H-258-265



Chemical Data Cross-Reference  
Groundwater Samples, Round 3  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-103	VOCs	8702-710	H-193-194
		VOCs-Second Column Confirmation		H-198
		BNAs		H-213-214
		Pesticides/PCBs		H-223
		O&G		H-229
		TOC		H-229
		Metals		H-256
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-O&G		H-229
		-TOC		H-229
		-Metals		H-258-265
POL Trenches and Lagoon	MW-104	VOCs	8702-695	H-187-188
		BNAs		H-211-212
		Pesticides/PCBs		H-221
		O&G		H-228
		TOC		H-228
		Metals		H-244
		QA/QC-VOCs		H-187-190
		-BNAs		H-211-212
		-TOC		H-228
		-Metals		H-246-253
	MW-105	VOCs	8702-710	H-193-194
		BNAs		H-215-216
		Pesticides/PCBs		H-223
		O&G		H-229
		TOC		H-229
		Metals		H-257
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-Pesticides/PCBs		H-223
		-O&G		H-229
		-TOC		H-229
		-Metals		H-258-265





Chemical Data Cross-Reference  
Groundwater Samples, Round 3  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	MW-106	VOCs	8702-695	H-187-188
		BNAs		H-211-212
		Pesticides/PCBs		H-222
		O&G		H-228
		TOC		H-228
		Metals		H-244
		QA/QC-VOCs		H-187-190
		-BNAs		H-211-212
		-TOC		H-228
		-Metals		H-246-253
South Fire Training Area	MW-107	VOCs	8702-724	H-199-200
		BNAs		H-217-218
		Pesticides/PCBs		H-223
		O&G		H-230
		TOC		H-230
		Metals		H-268
		QA/QC-VOCs		H-199-202
		-BNAs		H-219-220
		-Pesticides/PCBs		H-224-226
		-O&G		H-230
		-TOC		H-230
		-Metals		H-269-274
	MW-108	VOCs	8702-724	H-199-200
		BNAs		H-217-218
		Pesticides/PCBs		H-224
		O&G		H-230
		TOC		H-230
		Metals		H-268
		QA/QC-VOCs		H-199-204
		-BNAs		H-219-220
		-Pesticides/PCBs		H-224-226
		-O&G		H-230
		-TOC		H-230
		-Metals		H-269-274



Chemical Data Cross-Reference  
Groundwater Samples, Round 3  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
North and Current Fire Training Area	MW-109	VOCs	8702-690	H-183-184
		BNAs		H-207-208
		Pesticides/PCBs		H-221
		O&G		H-227
		TOC		H-227
		Metals		H-235
		QA/QC-VOCs		H-183-186
		-BNAs		H-207-210
		-Pesticides/PCBs		H-221
		-O&G		H-227
	-TOC	H-227		
	-Metals	H-236-243		
	MW-110	VOCs	8702-695	H-187-188
		BNAs		H-211-212
		Pesticides/PCBs		H-222
O&G		H-228		
TOC		H-228		
Metals		H-245		
QA/QC-VOCs		H-187-190		
-BNAs		H-211-212		
-TOC	H-228			
-Metals	H-246-253			
MW-111	VOCs	8702-690	H-183-184	
	BNAs		H-207-208	
	Pesticides/PCBs		H-221	
	O&G		H-227	
	TOC		H-227	
	Metals		H-235	
	QA/QC-VOCs		H-183-186	
	-BNAs		H-207-210	
	-Pesticides/PCBs		H-221	
	-O&G		H-227	
-TOC	H-227			
-Metals	H-236-243			

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Chemical Data Cross-Reference  
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Site	Well	Analytic Parameter	Lab Batch Number	Page
Base Production Wells	PW-1	VOCs	8702-695	H-187-188
		BNAs		H-211-212
		Pesticides/PCBs		H-222
		O&G		H-228
		TOC		H-228
		Radiological		H-231
		DBCP		H-232
		Metals		H-245
		QA/QC-VOCs		H-187-190
		-BNAs		H-211-212
	-TOC	H-228		
	-DBCP	H-232		
	-Metals	H-246-253		
	PW-4	VOCs	8702-724	H-199-200
		VOCs-Second Column Confirmation		H-206
		BNAs		H-217-218
		Pesticides/PCBs		H-224
		O&G		H-230
		TOC		H-230
		Radiological		H-231
DBCP		H-234		
Metals		H-266		
QA/QC-VOCs		H-199-204		
-BNAs	H-217-220			
-Pesticides/PCBs	H-224-226			
-O&G	H-230			
-TOC	H-230			
-DBCP	H-234			
-Metals	H-269-274			

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Chemical Data Cross-Reference  
Groundwater Samples, Round 3  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-7	VOCs	8702-710	H-191-192
		BNAs		H-213-214
		Pesticides/PCBs		H-222
		O&G		H-229
		TOC		H-229
		Radiological		H-231
		DBCP		H-233
		Metals		H-254
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-O&G		H-229
		-TOC		H-229
		-DBCP		H-233
		-Metals		H-258-265
	PW-9	VOCs	8702-710	H-191-192
		BNAs		H-213-214
		Pesticides/PCBs		H-222
		O&G		H-229
		TOC		H-229
		Radiological		H-231
		DBCP		H-233
		Metals		H-254
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-O&G		H-229
		-TOC		H-229
		-DBCP		H-233
		-Metals		H-258-265

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Chemical Data Cross-Reference  
Groundwater Samples, Round 3  
Luke AFB, Arizona

Site	Well	Analytic Parameter	Lab Batch Number	Page
	PW-10	VOCs	8702-710	H-191-192
		BNAs		H-213-214
		Pesticides/PCBs		H-223
		O&G		H-229
		TOC		H-229
		Radiological		H-231
		DBCP		H-233
		Metals		H-255
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-O&G		H-229
		-TOC		H-229
		-DBCP		H-233
		-Metals		H-258-265
	PW-11	VOCs	8702-710	H-191-192
		BNAs		H-213-214
		Pesticides/PCBs		H-222
		O&G		H-229
		TOC		H-229
		Radiological		H-231
		DBCP		H-233
		Metals		H-255
		QA/QC-VOCs		H-191-196
		-BNAs		H-215-216
		-O&G		H-229
		-TOC		H-229
		-DBCP		H-233
		-Metals		H-258-265



Chemical Data Cross-Reference  
Groundwater Samples, Round 4  
Luke AFB, Arizona

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Site	Well	Analytic Parameter	Lab Batch Number	Page
Base Production Wells	PW-4	VOCs	8703-880	H-275-276
		DBCP		H-293
		QA/QC-VOCs		H-275-284
		-DBCP		H-293
	PW-7	VOCs	8703-880	H-275-276
		QA/QC-VOCs		H-275-284
	PW-9	VOCs	8703-880	H-275-276
		DBCP		H-293
		QA/QC-VOCs -DBCP		H-275-284 H-293
	PW-10	VOCs	8703-880	H-275-276
		DBCP		H-293
		QA/QC-VOCs		H-275-284
-DBCP		H-293		
Sewage Treatment Plant Effluent Canal	MW-101	VOCs	8703-880	H-277-278
		QA/QC-VOCs		H-275-283
South Fire Training Area	MW-107	VOCs	8703-880	H-277-278
		QA/QC-VOCs		H-275-283
	MW-108	VOCs	8703-880	H-277-278
		QA/QC-VOCs		H-275-283
North and Current Fire Training Area	MW-109	VOCs	8703-880	H-277-278
		QA/QC-VOCs		H-275-283
	MW-110	VOCs	8703-880	H-279-280
		QA/QC-VOCs		H-275-283
	MW-111	VOCs	8703-880	H-279-280
		QA/QC-VOCs		H-275-283

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Chemical Data Cross-Reference  
Effluent Samples, Round 4  
Luke AFB, Arizona

Site	Sample Number	Analytic Parameter	Lab Batch Number	Page
Sewage Treatment Plant (STP)	02-004-001 and	VOCs Second Column Confirmation	8703-880	H-277-282 H-286
Effluent Canal	02-004-002	QA/QC-VOCs		H-275-284
	02-004-003	VOCs Second Column Confirmation QA/QC-VOCs	8703-898	H-287-288 H-292 H-287-290

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H-xxx



Chemical Data Cross-Reference  
Soil Samples  
Luke AFB, Arizona

Site	Boring Number	Analytic Parameter	Lab Batch Number	Page
Sewage Treatment Plant (STP) Effluent Canal	02-01	VOCs	8610-099	H-423-424
		QA/QC-VOCs		H-425-426
	02-02	Metals	8610-099	H-487a
		VOCs		H-432-424
	02-04	QA/QC-VOCs	8610-099	H-425-426
		Metals		H-487a
	02-05	VOCs	8701-554	H-437-438
		Metals		H-488-489
		QA/QC-Metals		H-490-496
	02-06	VOCs	8701-578	H-439-442
		Metals		H-497-499
		QA/QC-VOCs		H-439-440
	02-07	-Metals	8701-578	H-501-506
		VOCs		H-441-444
		Metals		H-499-501
		QA/QC-VOCs		H-439-440
	02-08	-Metals	8701-581	H-501-506
		VOCs		H-447-448
		Metals		H-507-508
QA/QC-VOCs		H-447-454		
02-09	-Metals	8701-581	H-512-523	
	VOCs		H-447-450	
	Metals		H-509-510	
	QA/QC-VOCs		H-447-454	
02-010	-Metals	8701-581	H-512-523	
	VOCs		H-449-452	
	Metals		H-510-512	
	QA/QC-VOCs		H-447-454	
		-Metals		H-512-523





Chemical Data Cross-Reference  
Soil Samples  
Luke AFB, Arizona

Site	Boring Number	Analytic Parameter	Lab Batch Number	Page
Oil/Water (O/W) Separator Canal	03-01	VOCs	8610-998	H-427-432
		Second Column Confirmation		H-436
		Petroleum Hydrocarbons (TPH)		H-467
		QA/QC-VOCs -TPH		H-431-434 H-467
	03-02	VOCs	8610-004	H-294-297
		TPH		H-457
		QA/QC-VOCs -TPH	H-300-303 H-457	
		VOCs	8610-998	H-427-430
		Second Column Confirmation		H-436
		TPH		H-467
	03-03	VOCs	8610-004	H-431-434
		QA/QC-VOCs -TPH		H-467
		Petroleum Hydrocarbon (TPH)		H-294-297
	03-04	VOCs	8610-056	H-457
		TPH		H-300-303
		QA/QC-VOCs -TPH	H-457	
		VOCs	8610-063	H-344-347
		TPH		H-459
		QA/QC-VOCs -TPH		H-346-349 H-459
		VOCs		H-354-357
03-05		TPH	8610-063	H-460
	QA/QC-VOCs -TPH	H-366-369 H-460		
	VOCs	H-352-355		
	TPH	H-460		



Chemical Data Cross-Reference  
Soil Samples  
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Site	Boring Number	Analytic Parameter	Lab Batch Number	Page
Petroleum, Oil, and Lubricants (POL) Area	03-06	VOCs	8610-065	H-374-379
		TPH		H-461-462
		QA/QC-VOCs		H-376-383
		-TPH		H-461-462
	04-01	VOCs	8610-004	H-296-301
		Metals		H-468
		QA/QC-VOCs	H-300-303	
		-Metals	H-468	
		VOCs	8610-019	H-304-307
		Metals		H-469
		QA/QC-VOCs		H-312-313
		-Metals		H-469-471
	04-02	VOCs	8610-019	H-304-309
		Metals		H-469
		QA/QC-VOCs		H-312-313
		-Metals		H-469-471
04-03	VOCs	8610-019	H-308-310	
	Second Column Confirmation		H-315	
	Metals		H-469-471	
	O&G		H-458	
	QA/QC-VOCs	H-312-313		
	-Metals	H-469-471		
	-O&G	H-458		
	VOCs	8610-024	H-320-321	
QA/QC-VOCs	H-322-325			
04-04	VOCs	8610-024	H-316-325	
	Metals		H-472	
	QA/QC-VOCs		H-322-325	
	-Metals		H-472	
	VOCs	8610-047	H-332-335	
	Metals		H-473-474	
	QA/QC-VOCs		H-332-335	
	-Metals		H-473-474	



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Soil Samples  
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Site	Boring Number	Analytic Parameter	Lab Batch Number	Page
	04-05	VOCs	8610-024	H-320-327
		Metals		H-472
		QA/QC-VOCs		H-322-325
		-Metals		H-472
		VOCs	8610-047	H-332-333
		QA/QC-VOCs		H-332-335
	04-06	VOCs	8610-047	H-326-329
		Second Column Confirmation		H-337
		Metals		H-473
		QA/QC-VOCs		H-332-335
		-Metals		H-473-474
	04-07	VOCs	8610-047	H-330-333
		Metals		H-473
		QA/QC-VOCs		H-332-335
		-Metals		H-473-474
		VOCs	8610-056	H-344-345
		Metals		H-475-476
		QA/QC-VOCs		H-346-349
		-Metals		H-475-476
	04-08	VOCs	8610-056	H-338-341
		Metals		H-475
		QA/QC-VOCs		H-346-349
		-Metals		H-475-476
	04-09	VOCs	8610-056	H-342-343
		Metals		H-475-476
		QA/QC-VOCs		H-346-349
		-Metals		H-475-476
		VOCs	8610-063	H-358-359
		Metals		H-477
		QA/QC-VOCs		H-366-369
		-Metals		H-477-478



Chemical Data Cross-Reference  
Soil Samples  
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Site	Boring Number	Analytic Parameter	Lab Batch Number	Page
South Fire Training Area (SFTA)	05-01	VOCs	8610-063	H-360-367
		Second Column Confirmation		H-371
		Metals		H-477-478
		O&G		H-460
		QA/QC-VOCs		H-366-369
		-Metals		H-477-478
		-O&G		H-460
	05-02	VOCs	8610-063	H-356-359
		O&G		H-460
		Metals		H-477
		QA/QC-VOCs		H-366-369
		-O&G		H-460
		-Metals		H-477-478
		VOCs		8610-065
Second Column Confirmation		H-385		
O&G		H-461-462		
Metals		H-479		
North and Current Fire Training Area (NFTA)	06-01	VOCs	8610-076	H-386-393
		Second Column Confirmation		H-403
		TPH		H-463-464
		Metals		H-480-483
		QA/QC-VOCs		H-386-401
		-TPH		H-463-464
		-Metals		H-480-483



Chemical Data Cross-Reference  
Soil Samples  
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Site	Boring Number	Analytic Parameter	Lab Batch Number	Page
	06-02	VOCs	8610-076	H-392-399
		Second Column Confirmation		H-403
		TPH		H-463-464
		Metals		H-481-483
		QA/QC-VOCs		H-386-401
		-TPH		H-463-464
		-Metals		H-480-483
	06-03	VOCs	8610-090	H-404-411
		TPH		H-465-466
		Metals		H-484
		QA/QC-VOCs		H-406-419
		-TPH		H-465-466
		-Metals		H-484-487
	06-04	VOCs	8610-090	H-410-419
		TPH		H-465-466
		Metals		H-484-486
		QA/QC-VOCs		H-406-419
		-TPH		H-465-466
		-Metals		H-484-487



Chemical Data Cross-Reference  
Sediment Samples  
Luke AFB, Arizona

Site	Sample Number	Analytic Parameter	Lab Batch Number	Page
Sewage Treatment Plant (STP) Effluent Canal	02-001 to	VOCs	8612-397	H-524-529
	02-010	Metals		H-547
		QA/QC-VOCs		H-524-529
		-Metals		H-547
Oil/Water (O/W) Separator Canal	03-001 to	VOCs	8612-433	H-532-535
	03-010	Second Column Confirmation		H-537
		Petroleum Hydrocarbons (TPH)		H-545
	03-011 to	VOCs	8612-417	H-538-543
	03-019	Petroleum Hydrocarbons (TPH)		H-544
		QA/QC-VOCs -TPH		H-538 H-544



VOC Results

Water

Round 1

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-374 Client: LUKE AFB Page: 1

Sample Information	Cust ID	RFW#	Matrix	D.F.:	Units:	04104M001	04105M001	04105M001	04105M001	04105M001	04106M001	04106M001	TRIP BLK
			Water		ug/l	Water	Water	Water	Water	Water	Water	Water	Water
Chloromethane.....	0010		1		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....					1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....					4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	160
Acetone.....					10 U	62	61	69	69	10 U	10 U	10 U	10 U
Carbon Disulfide.....					NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....					0.5 U	0.5 U	0.5 U	66 §	66 §	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....					10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....					0.5 U	0.5 U	0.5 U	66 §	66 §	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....					0.5 U	0.5 U	0.5 U	109 §	109 §	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....					1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....					2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....					10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U



RFW Batch Number: 8612-374

Client: LUKE AFB

Page: 1

Cust ID: 04104M001 04105M001 04105M001 04105M001 04106M001 TRIP BLK  
RFW#: 0010 0020 0020 DUP 0020 MS 0030 0040

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	1.5 U	1.2 U	0.5 U	2.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-374      Client: LUKE AFB

Page: 2

Sample Information	Cust ID:	BLANK		B.S.		Water	Water	Water	Water
		RFW#:	Water	B.S.	Water				
	Matrix:	Water	ug/l	Water	ug/l	ug/l	ug/l	ug/l	ug/l
	D.F.:	1	1	1	1	1	1	1	1
	Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....		1 U	NRP						
Bromomethane.....		1 U	NRP						
Vinyl Chloride.....		0.5 U	NRP						
Chloroethane.....		0.5 U	NRP						
Methylene Chloride.....		4 U	NRP						
Acetone.....		10 U	NRP						
Carbon Disulfide.....		NA	NA						
1,1-Dichloroethene.....		0.5 U	NRP						
1,1-Dichloroethane.....		0.5 U	NRP						
Trans-1,2-Dichloroethene.....		0.5 U	NRP						
Chloroform.....		0.5 U	92 ‡						
1,2-Dichloroethane.....		0.5 U	NRP						
2-Butanone.....		10 U	NRP						
1,1,1-Trichloroethane.....		0.5 U	NRP						
Carbon Tetrachloride.....		0.5 U	NRP						
Bromodichloromethane.....		0.5 U	101 ‡						
1,2-Dichloropropane.....		0.5 U	NRP						
Trans-1,3-Dichloropropene.....		0.5 U	NRP						
Trichloroethene.....		0.5 U	78 ‡						
Dibromochloromethane.....		0.5 U	NRP						
1,1,2-Trichloroethane.....		0.5 U	NRP						
Benzene.....		0.5 U	85 ‡						
cis-1,3-Dichloropropene.....		0.5 U	NRP						
2-Chloroethylvinylether.....		1 U	NRP						
Bromoform.....		2 U	NRP						
4-Methyl-2-pentanone.....		10 U	NRP						

RFW Batch Number: 8612-374

Client: LUKE AFB

Page: 2

Cust ID:

B.S.

RFW#:

B.S.

BLANK

BLANK

Tetrachloroethene.....	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	NRP
Toluene.....	0.5 U	NRP
Chlorobenzene.....	0.5 U	NRP
Ethylbenzene.....	0.5 U	97 *
Styrene.....	NA	NA
Total Xylenes.....	0.5 U	NRP
1,2-Dichlorobenzene.....	1 U	NRP
1,3-Dichlorobenzene.....	1 U	NRP
1,4-Dichlorobenzene.....	1 U	NRP
Trichlorofluoromethane.....	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

# WESTON

WESTON Analytics

LUKE AFB

RFWBN: 8612-374, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 12-28,29-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

*Carter P. Nulton*

\_\_\_\_\_  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

*2-11-87*

\_\_\_\_\_  
DATE

WESTON Analytics

LUKE AFB

RFWEN: 8612-374, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 12-28,29-86

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-374-0020	Acetone	62 ug/l	YES
	Tetrachloroethene	1.5 ug/l	NO
8612-374-0040	Methylene Chloride	160 ug/l	YES
	Tetrachloroethene	2.5 ug/l	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-387 Client: LUKE AFB Page: 1

Sample Information	Cust ID: 06109M001	06110M001	06109M201	06109M201	06109M201	06109M201	06111M001
	RFW#: 0010	0020	0030	0030	0030	0030	MS 0040
Matrix:	Water	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	110	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U
	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8612-387

Client: LUKE AFB

Page: 1

Cust ID: 06109M001 06110M001 06109M201 06109M201 06109M201 06109M201 06111M001

RFW#: 0010 0020 0030 0030 DUP 0030 MS 0040

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-387      Client: LUKE AFB      Page: 2

Sample Information	Cust ID: 06111M101	TRIP BLK 0060	BLANK	B.S.
Matrix:	Water	Water	Water	B.S.
D.F.:	1	1	1	Water
Units:	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	0.5 U	NRP
Methylene Chloride.....	4 U	180	4 U	NRP
Acetone.....	10 U	10 U	10 U	NRP
Carbon Disulfide.....	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	NRP
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	0.5 U	92 %
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	101 %
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	0.5 U	78 %
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	NRP
Benzene.....	0.5 U	0.5 U	0.5 U	85 %
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....	1 U	1 U	1 U	NRP
Bromoform.....	2 U	2 U	2 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	10 U	NRP



RFW Batch Number: 8612-387

Client: LUKE AFB

Page: 2

Cust ID: 06111M101 TRIP BLK

B.S.

RFW#: 0050

BLANK

B.S.

	0050	0060	BLANK	B.S.
Tetrachloroethene.....	0.5 U	7	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	0.5 U	NRP
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	NRP
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	97 ‡
Styrene.....	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	NRP
1,2-Dichlorobenzene.....	1 U	1 U	1 U	NRP
1,3-Dichlorobenzene.....	1 U	1 U	1 U	NRP
1,4-Dichlorobenzene.....	1 U	1 U	1 U	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

**WESTON**

WESTON Analytics

LUKE AFB

RFWBN: 8612-387, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 12-28,29-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

*Carter P. Nulton*

*2-11-87*

\_\_\_\_\_  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

\_\_\_\_\_  
DATE

WESTON Analytics

LUKE AFB

RFWBN: 8612-387, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 12-28,29-86

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-387-0020	Acetone	110 ug/l	NO
8612-387-0040	Tetrachloroethene	1.0 ug/l	YES
8612-387-0060	Methylene Chloride	180 ug/l	YES
	Tetrachloroethene	7.0 ug/l	NO*

\* On this column, high DCM value masks PCE.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-396 Client: LUKE AFB Page: 1

Sample Information	Cust ID:	02001E001	02001E002	01004P001	01004P001	01004P001	01004P001	01004P001	02101M001
RFW#:	0010	0020	0030	0030	0030	0030	0030	MS	0040
Matrix:	Water	Water	Water	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
	fl	fl	fl	fl	fl	fl	fl	fl	fl
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	100	52	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Client: LUKE AFB

RFW Batch Number: 8612-396

Client: LUKE AFB

RFW Batch Number: 8612-396

Cust ID: 02001E001 02001E002 01004P001 01004P001 01004P001 01004P001 01004P001 02101M001  
RFW#: 0010 0020 0030 0030 DUP 0030 MS 0040

	fl	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	1.6	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-396 Client: LUKE AFB

Cust ID: TRIP BLK 02001E003 B.S.  
 RFW#: 0050 B.S.  
 Matrix: Water 1 Water 1  
 D.F.: 1 ug/l ug/l  
 Units: ug/l ug/l

Sample Information	TRIP BLK 02001E003	BLANK	B.S.
	0050	BLANK	B.S.
	Water	Water	Water
	1	1	1
	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	NRP
Methylene Chloride.....	220	4 U	NRP
Acetone.....	10 U	10 U	NRP
Carbon Disulfide.....	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	NRP
1,1-Dichloroethane.....	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	78 ‡
1,2-Dichloroethane.....	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	82 ‡
1,2-Dichloropropane.....	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	94 ‡
Dibromochloromethane.....	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane.....	0.5 U	0.5 U	83 ‡
Benzene.....	0.5 U	0.5 U	NRP
cis-1,3-Dichloropropene.....	1 U	1 U	NRP
2-Chloroethylvinylether.....	2 U	2 U	NRP
Bromoform.....	10 U	10 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	NRP

RFW Batch Number: 8612-396 Client: LUKE AFB Page: 2

Cust ID: TRIP BLK 02001E003 BLANK B.S.  
 RFW#: 0050 0060 BLANK B.S.

Compound	Concentration	Unit	Blank	Result	Blank	Result
Tetrachloroethene	2.2	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U
Styrene	NA		NA		NA	
Total Xylenes	0.5	U	1	U	0.5	U
1,2-Dichlorobenzene	1	U	1	U	1	U
1,3-Dichlorobenzene	1	U	1	U	1	U
1,4-Dichlorobenzene	1	U	1	U	1	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	1	U	1	U	1	U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

# WESTON

WESTON Analytics

LUKE AFB

RFWBN: 8612-396, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 12-28,29-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Carter P. Nulton      2-11-87  
Carter P. Nulton, Ph.D.      DATE  
Organics Section Manager  
WESTON Analytical Laboratories



WESTON Analytics

LUKE AFB

RFWBN: 8612-396, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 12-28,29-86

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-396-0010	Tetrachloroethene	3.0 ug/l	YES
	Toluene	1.6 ug/l	NO
	Acetone	100 ug/l	YES
8612-396-0020	Toluene	1.6 ug/l	YES
	Acetone	52 ug/l	YES
8612-396-0030	Bromodichloromethane	2.4 ug/l	YES
	Chlorodibromomethane	6.8 ug/l	YES
8612-396-0040	Tetrachloroethene	13 ug/l	YES
8612-396-0050	Methylene Chloride	220 ug/l	YES
	Tetrachloroethene	2.2 ug/l	NO*
8612-396-0060	Xylene	1.0 ug/l	NO
	Acetone	65 ug/l	YES

\* On this column, high value of DCM masks PCE.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-397- Client: LUKE AFB Page: 1

Sample Information	Cust ID:	BLNK SPK	BLNK SPK	02001D001	02002D001	02003D001	02004D001
RFW#:	BLNK	BLNK SPK	BLNK SPK	0010	0020	0030	0040
Matrix:	Water	Water	Water	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	115 *	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	110 *	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

	Cust ID:	BLANK	BLNK SPK	02001D001	02002D001	02003D001	02004D001
	RFW#:	BLANK	BLNK SPK	0010	0020	0030	0040
Tetrachloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Total Xylenes.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....		0.001 U	96 ‡	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....		0.001 U	111 ‡	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl Ethyl Ketone.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Isobutyl Ketone.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-397- Client: LUKE AFB Page: 2

Sample Information	Cust ID: 02005D001	02006D001	02007D001	02008D001	02009D001	02010D001
RFW#:	0050	0060	0070	0080	0090	0100
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

Client: LUKE AFB

RFW Batch Number: 8612-397-

Cust ID:	02005D001	02006D001	02007D001	02008D001	02009D001	02010D001
RFW#:	0050	0060	0070	0080	0090	0100

Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl Ethyl Ketone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl IsoButyl Ketone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-397-

Client: LUKE AFB

Cust ID: 02001D101 02006D001 02006D001  
 RFW#: 0110 0060 DUP 0060 MS  
 Matrix: Soil Soil Soil  
 D.F.: 1 1 1  
 Units: mg/kg mg/kg mg/kg

Sample Information	mg/kg	mg/kg	mg/kg	fl	fl	fl	fl	fl
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

Cust ID: 02001D101 02006D001 02006D001  
 RFW#: 0110 0060 DUP 0060 MS

Tetrachloroethene.....	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U
Styrene.....	0.001 U	0.001 U	0.001 U
Total Xylenes.....	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-402 Client: LUKE AFB Page: 1

Sample Information	Cust ID: 02002E002	02002E003	05108M001	02002E001	02003E002	LAB DUP
RFW#:	0010	0020	0040	0120	0130	0130
Matrix:	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	42	23	26
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U



RFW Batch Number: 8612-402

Client: LUKE AFB

Page: 1

Cust ID: 02002E002 02002E003 05108M001 02002E001 02003E002 LAB DUP  
RFW#: 0010 0020 0040 0120 0130 0130

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	1	6	0.5 U	1.6
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-402

Client: LUKE AFB

Sample Information	Cust ID:	M.S.:	TRIP BLK#2	01009P001	01010P001	01010P101	0140		0150		0160		0170	
							Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l
	RFW#:	0130												
	Matrix:	Water												
	D.F.:	1												
	Units:	ug/l												
Chloromethane.....		NRP		1 U	1 U	1 U								1 U
Bromomethane.....		NRP		1 U	1 U	1 U								1 U
Vinyl Chloride.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Chloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Methylene Chloride.....		NRP		4 U	160	4 U								4 U
Acetone.....		37		10 U	10 U	10 U								10 U
Carbon Disulfide.....		NA		NA	NA	NA								NA
1,1-Dichloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
1,1-Dichloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Trans-1,2-Dichloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Chloroform.....		103 *		0.5 U	0.5 U	0.5 U								0.5 U
1,2-Dichloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
2-Butanone.....		NRP		10 U	10 U	10 U								10 U
1,1,1-Trichloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Carbon Tetrachloride.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Bromodichloromethane.....		95 *		0.5 U	0.5 U	0.5 U								0.5 U
1,2-Dichloropropane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Trans-1,3-Dichloropropene.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Trichloroethene.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Dibromochloromethane.....		80 *		0.5 U	0.5 U	0.5 U								0.5 U
1,1,2-Trichloroethane.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Benzene.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
cis-1,3-Dichloropropene.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
2-Chloroethylvinylether.....		NRP		0.5 U	0.5 U	0.5 U								0.5 U
Bromoform.....		NRP		1 U	1 U	1 U								1 U
4-Methyl-2-pentanone.....		NRP		2 U	2 U	2 U								2 U
		NRP		10 U	10 U	10 U								10 U

RFW Batch Number: 8612-402

Client: LUKE AFB

Cust ID: M.S. 02003E003

TRIP BLK#2 01009P001

01010P001 01010P101

0150 0160 0170 0180

RFW#:

0130 0140 0150 0160 0170 0180

Chemical	0130	0140	0150	0160	0170	0180
Tetrachloroethene	NRP	1.3	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	NRP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	NRP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	NRP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	NRP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	NA	NA	NA	NA	NA	NA
Total Xylenes	NRP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	NRP	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	NRP	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	NRP	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NRP	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	NRP	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-402 Client: LUKE AFB Page: 3

Cust ID: TRIP BLK#3 01001P001 01007P001 01011P001 TRIP BLK#4  
 RFW#: 0190 0200 0210 0220 0230  
 Matrix: Water Water Water Water Water  
 D.F.: 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l

Sample Information	01001P001	01007P001	01011P001	TRIP BLK#4	BLANK
Chloromethane.....	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	230	4 U	4 U	230	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8612-402 Client: LUKE AFB

Cust ID: TRIP BLK#3 01001P001 01007P001 01011P001 TRIP BLK#4 BLANK  
 RFW#: 0190 0200 0210 0220 0230 BLANK

	fl	fl	fl	fl	fl
Tetrachloroethene.....	2.5 U	0.5 U	1.1 U	0.5 U	3.3 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	7.8 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-402      Client: LUKE AFB      Page: 4

Sample Information	Cust ID:	B.S.	BLANK	B.S.
	RFW#:	B.S.	BLANK	B.S.
	Matrix:	Water	Water	Water
	D.F.:	1	1	1
	Units:	ug/l	ug/l	ug/l
Chloromethane.....	NRP	1 U	NRP	NRP
Bromomethane.....	NRP	1 U	NRP	NRP
Vinyl Chloride.....	NRP	0.5 U	NRP	NRP
Chloroethane.....	NRP	0.5 U	NRP	NRP
Methylene Chloride.....	NRP	4 U	NRP	NRP
Acetone.....	89 %	10 U	NRP	NRP
Carbon Disulfide.....	NA	NA	NA	NA
1,1-Dichloroethene.....	NRP	0.5 U	NRP	NRP
1,1-Dichloroethane.....	NRP	0.5 U	NRP	NRP
Trans-1,2-Dichloroethene.....	NRP	0.5 U	NRP	NRP
Chloroform.....	91 %	0.5 U	90 %	90 %
1,2-Dichloroethane.....	NRP	0.5 U	NRP	NRP
2-Butanone.....	NRP	10 U	NRP	NRP
1,1,1-Trichloroethane.....	NRP	0.5 U	NRP	NRP
Carbon Tetrachloride.....	NRP	0.5 U	NRP	NRP
Bromodichloromethane.....	93 %	0.5 U	96 %	96 %
1,2-Dichloropropane.....	NRP	0.5 U	NRP	NRP
Trans-1,3-Dichloropropene.....	NRP	0.5 U	NRP	NRP
Trichloroethene.....	NRP	0.5 U	NRP	NRP
Dibromochloromethane.....	NRP	0.5 U	NRP	NRP
1,1,2-Trichloroethane.....	NRP	0.5 U	NRP	NRP
Benzene.....	91 %	0.5 U	NRP	NRP
cis-1,3-Dichloropropene.....	NRP	0.5 U	NRP	NRP
2-Chloroethylvinylether.....	NRP	1 U	NRP	NRP
Bromoform.....	NRP	2 U	NRP	NRP
4-Methyl-2-pentanone.....	NRP	10 U	NRP	NRP

RFW Batch Number: 8612-402

Client: LUKE AFB

Page: 4

	Cust ID:	B.S.	BLANK	B.S.
	RFW#:	B.S.	BLANK	B.S.
Tetrachloroethene.....		NRP	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....		NRP	0.5 U	NRP
Toluene.....		NRP	0.5 U	86 ‡
Chlorobenzene.....		NRP	0.5 U	NRP
Ethylbenzene.....		NRP	0.5 U	NRP
Styrene.....		NA	NA	NA
Total Xylenes.....		92 ‡	0.5 U	86 ‡
1,2-Dichlorobenzene.....		NRP	1 U	NRP
1,3-Dichlorobenzene.....		NRP	1 U	NRP
1,4-Dichlorobenzene.....		NRP	1 U	NRP
Trichlorofluoromethane.....		NRP	0.5 U	NRP
Dichlorodifluoromethane.....		NRP	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.



WESTON Analytics

LUKE AFB

RFWBN: 8612-402, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15 Analysis Date: 12-30,31-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

*C. P. Nulton*  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

*2-10-86*  
DATE



WESTON Analytics

LUKE AFB

RFWEN: 8612-402, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 12-30,31-86

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-402-0040	Tetrachloroethene	1.0 ug/l	NO
8612-402-0120	Tetrachloroethene	6.0 ug/l	YES
	Acetone	42 ug/l	YES
8612-402-0130	Acetone	23 ug/l	YES
	Tetrachloroethene	1.6 ug/l	NO
8612-402-0140	Tetrachloroethene	1.3 ug/l	NO
8612-402-0150	Methylene Chloride	150 ug/l	YES
8612-402-0190	Methylene Chloride	230 ug/l	YES
	Tetrachloroethene	2.5 ug/l	NO*
8612-402-0210	Tetrachloroethene	1.1 ug/l	NO
8612-402-0230	Methylene Chloride	230 ug/l	YES
	Tetrachloroethene	3.3 ug/l	NO*
	Toluene	7.8 ug/l	YES

\* On this column, PCE interfered with by large DCM peak.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-417 Client: LUKE AFB Page: 1

Sample Information	05107M001		05107M001		05107M001		05107M101		BLANK		B.S.	
	0010	0010 DUP	0010 MS	0020	Water	Water	Water	Water	Water	Water	Water	Water
Matrix:	Water	Water	Water	Water	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	NRP
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	68 ‡	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	78 ‡
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	82 ‡
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	94 ‡
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	83 ‡
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP

	Cust ID: 05107M001	05107M001	05107M001	05107M101			
RFW#:	0010	0010 DUP	0010 MS	0020	BLANK	BLANK	B.S.
Tetrachloroethene.....	1.6	2.4	2.7	0.5 U	0.5 U	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Styrene.....	NA	NA	NA	0.5 U	0.5 U	0.5 U	81 ‡
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	0.5 U	0.5 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-417 Client: LUKE AFB

Sample Information	Cust ID:	BLANK	B.S.
RFW#:	BLANK	B.S.	B.S.
Matrix:	Water	Water	Water
D.F.:	1	1	1
Units:	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	NRP
Methylene Chloride.....	4 U	4 U	109 %
Acetone.....	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	NRP
1,1-Dichloroethane.....	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	107 %
1,2-Dichloroethane.....	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	123 %
1,2-Dichloropropane.....	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	NRP
Dibromochloromethane.....	0.5 U	0.5 U	124 %
1,1,2-Trichloroethane.....	0.5 U	0.5 U	NRP
Benzene.....	0.5 U	0.5 U	NRP
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....	1 U	1 U	NRP
Bromoform.....	2 U	2 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	NRP

	Cust ID:	BLANK	B.S.
	RFW#:	BLANK	B.S.
Tetrachloroethene.....		0.5 U	NRP
1,1,2,2-Tetrachloroethane.....		0.5 U	NRP
Toluene.....		0.5 U	NRP
Chlorobenzene.....		0.5 U	NRP
Ethylbenzene.....		0.5 U	NRP
Styrene.....		NA	NA
Total Xylenes.....		0.5 U	NRP
1,2-Dichlorobenzene.....		1 U	NRP
1,3-Dichlorobenzene.....		1 U	NRP
1,4-Dichlorobenzene.....		1 U	NRP
Trichlorofluoromethane.....		0.5 U	NRP
Dichlorodifluoromethane.....		1 U	NRP

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
 NR=Not requested.

**WESTON**

WESTON Analytics

LUKE AFB

RFWBN: 8612-417, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Dates: 12-30-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

*C. P. Nulton*  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

3-17-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8612-417, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-417-0010	TETRACHLOROETHENE	2.4 ug/L	NO

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-433

Client: LUKE AFB

Page: 1

Cust ID: 02003E001 02003E001 02003E001 TRIP BLK BLANK B.S.  
 RFW#: 0010 0010 DUP 0010 MS 0120 BLANK B.S.  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Sample Information	02003E001	02003E001	02003E001	TRIP BLK	BLANK	B.S.
Chloromethane	1 U	1 U	1 U	1 U	1 U	NRP
Bromomethane	1 U	1 U	1 U	1 U	1 U	NRP
Vinyl Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Methylene Chloride	4 U	4 U	4 U	650	4 U	NRP
Acetone	45	44	45	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroform	0.5 U	0.5 U	73 %	0.5 U	0.5 U	116 %
1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Butanone	10 U	10 U	10 U	10 U	10 U	NRP
1,1,1-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Carbon Tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Bromodichloromethane	0.5 U	0.5 U	70 %	0.5 U	0.5 U	NRP
1,2-Dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dibromochloromethane	0.5 U	0.5 U	67 %	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
cis-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Chloroethylvinylether	1 U	1 U	1 U	1 U	1 U	NRP
Bromoform	2 U	2 U	2 U	2 U	2 U	NRP
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	NRP



RFW Batch Number: 8612-433 Client: LUKE AFB Page: 1

	Cust ID: 02003E001	02003E001	02003E001	02003E001	TRIP BLK	BLANK	B.S.
RFW#:	0010	0010 DUP	0010 MS	0120	BLANK	B.S.	
Tetrachloroethene.....	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	111 \$
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	108 \$
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	123 \$
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.



WESTON Analytics  
LUKE AFB  
RFWBN: 8612-433, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15      Analysis Dates: 01-02,03-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

<u>          Carter P. Nulton          </u>	<u>          2-18-87          </u>
Carter P. Nulton, Ph.D.	DATE
Organics Section Manager	
WESTON Analytical Laboratories	

WESTON Analytics

LUKE AFB

RFWBN: 8612-433, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 01-02,03-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-433-0010	Tetrachloroethene	1.2 ug/l	NO
	Acetone	45 ug/l	NO
8612-433-0020	Methylene Chloride	7.6 ug/kg	YES
	Trichlorofluoro- methane	1.8 ug/kg	NO
8612-433-0040	Methylene Chloride	7.9 ug/kg	YES
	Trichlorofluoro- methane	3.6 ug/kg	NO
8612-433-0060	Methylene Chloride	8.5 ug/kg	YES
8612-433-0070	Methylene Chloride	6.3 ug/kg	YES
	Trichlorofluoro- methane	1.3 ug/kg	NO
8612-433-0080	Methylene Chloride	5.9 ug/kg	YES
	Trichlorofluoro- methane	1.9 ug/kg	NO
8612-433-0090	Methylene Chloride	7.1 ug/kg	YES
8612-433-0100	Methylene Chloride	6.6 ug/kg	YES
8612-433-0110	Methylene Chloride	5.2 ug/kg	YES
8612-433-0120	Methylene Chloride	650 ug/l	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-484 Client: LUKE AFB Page: 1

Sample Information	Cust ID	RFW#	Matrix	D.F.:	Units	03102M001		03103M001		LAB DUP		M.S.	
						0020	0030	0030	0040	0030	0040		
			Water		ug/l	ug/l	Water	Water	Water	Water	Water	Water	ug/l
Chloromethane	03001W001	0010	1		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	03001W001	0010	1		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	03001W001	0010	4		4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone	03001W001	0010	10		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	03001W001	0010	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	03001W001	0010	10		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether	03001W001	0010	0.5		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	03001W001	0010	1		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	03001W001	0010	2		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
	03001W001	0010	10		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8701-484 Client: LUKE AFB

Cust ID: 03001W001 03102M001 03103M001 LAB DUP M.S. 03103M101  
RFW#: 0010 0020 0030 0030 0040

	fl	fl	fl	fl	fl
Tetrachloroethene.....	12	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Page: 2

RFW Batch Number: 8701-484

Client: LUKE AFB

Sample Information  
Cust ID: 03103M201  
RFW#: 0050  
Matrix: Water  
D.F.: 1  
Units: ug/l

BLANK  
Water  
1  
ug/l

B.S.  
B.S.  
Water  
1  
ug/l

Sample Information	Units	ug/l	fl	fl	fl	fl	fl	fl
Chloromethane.....	1 U	1 U	1 U	1 U	NRP	NRP		
Bromomethane.....	1 U	1 U	1 U	1 U	NRP	NRP		
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Methylene Chloride.....	4 U	4 U	4 U	4 U	NRP	NRP		
Acetone.....	220	10 U	10 U	10 U	NRP	NRP		
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA		
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	93 %			
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
2-Butanone.....	10 U	10 U	10 U	10 U	NRP	NRP		
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	100 %			
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	84 %			
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	NRP	NRP		
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	NRP	NRP		
Bromoforn.....	2 U	2 U	2 U	2 U	NRP	NRP		
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	NRP	NRP		

RFW Batch Number: 8701-484

Client: LUKE AFB

Page: 2

Cust ID: 03103M201  
RFW#: 0050

BLANK B.S.  
BLANK B.S.

Tetrachloroethene.....	0.5 U	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	89 %
Chlorobenzene.....	0.5 U	0.5 U	NRP
Ethylbenzene.....	0.5 U	0.5 U	NRP
Styrene.....	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	92 %
1,2-Dichlorobenzene.....	1 U	1 U	NRP
1,3-Dichlorobenzene.....	1 U	1 U	NRP
1,4-Dichlorobenzene.....	1 U	1 U	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	NRP

48

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

**WESTON**

WESTON Analytics

LUKE AFB

RFWBN: 8701-484, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 01-20-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

C. P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

2-11-87  
DATE



WESTON Analytics

LUKE AFB

RFWBN: 8701-484, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 01-20-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8701-484-0010	Tetrachloroethene	12 ug/l	YES
8701-484-0050	Acetone	220 ug/l	YES



**BNA Results**

**Water**

**Round 1**

**1036B**

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-374      Client: LUKE AFB      Page: 1

Sample Information	Cust ID:	04104M001		04105M001		04106M001		BLANK	B.S.	B.S.D.
		RFW#:	Matrix:	Water	Water	Water	Water			
MDL=10xD.F., except	0010	Water	Water	Water	Water	Water	Water			
(2)=50X, (3)=20X	1	ug/l	1	ug/l	1	ug/l	1	ug/l	ug/l	ug/l
Units:		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Surrogate	2-Fluorophenol:	62 %	51 %	55 %	75 %	74 %	68 %			
Recovery (%)	Phenol-d5:	38 %	28 %	39 %	53 %	47 %	44 %			
	2,4,6-Br3-Phenol:	118 %	104 %	101 %	120 %	110 %	100 %			
	Nitrobenzene-d5:	65 %	72 %	84 %	78 %	78 %	80 %			
	2-Fluorobiphenyl:	69 %	68 %	81 %	80 %	82 %	82 %			
	p-Terphenyl-d14:	76 %	61 %	71 %	50 %	60 %	62 %			
	Phenol.....	10 U	10 U	10 U	10 U	10 U	10 U	fl	fl	fl
	bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	56 %	55 %	55 %
	2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	96 %	90 %	90 %
	1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U	56 %	52 %	52 %
	1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	bis(2-Chloroisopropyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	10 U	78 %	78 %	78 %
	Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
	bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	56 %	52 %	52 %
	4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Hexachlororbutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	78 %	78 %	78 %
	Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	84 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	26 \$
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	80 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	36 \$
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	NR
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	68 \$
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-387      Client: LUKE AFB      Page: 1

Cust ID: 06109M001    06110M001    06109M201    06111M001    06111M101    06111M101  
 RFW#: 0010            0020            0030            0040            0050  
 Matrix: Water        Water        Water        Water        Water  
 MDL=10xD.F., except    1            1            1            1  
 (2)=50x,(3)=20x        ug/l        ug/l        ug/l        ug/l        ug/l

Surrogate	2-Fluorophenol:	51 %	55 %	56 %	59 %	75 %
Recovery (%)	39 %	29 %	33 %	41 %	53 %	53 %
	97 %	93 %	98 %	108 %	120 %	120 %
	64 %	65 %	60 %	75 %	78 %	78 %
	67 %	58 %	53 %	74 %	80 %	80 %
	74 %	72 %	71 %	78 %	50 %	50 %
Phenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8612-387

Client: LUKE AFB

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Cust ID: 06109M001 06110M001 06109M201 06111M001 06111M101 BLANK  
RFW#: 0010 0020 0030 0040 0050 BLANK

	0010	0020	0030	0040	0050	BLANK
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

H  
1  
5  
A

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-387      Client: LUKE AFB      Page: 2

Sample Information  
MDL=10xD.F., except  
(2)=50x, (3)=20x

Cust ID: B.S.      B.S.D.  
RWF#: B.S.      B.S.D.  
Matrix: Water  
D.F.: 1  
Units: ug/l

Surrogate	74 %	68 %
2-Fluorophenol:	74 %	68 %
Phenol-d5:	47 %	44 %
2,4,6-Br3-Phenol:	110 %	100 %
Nitrobenzene-d5:	78 %	80 %
2-Fluorobiphenyl:	82 %	82 %
p-Terphenyl-d14:	60 %	62 %
Phenol.....	56 %	55 %
bis(2-Chloroethyl) Ether.....	10 U	10 U
2-Chlorophenol.....	96 %	90 %
1,3-Dichlorobenzene.....	10 U	10 U
1,4-Dichlorobenzene.....	56 %	52 %
Benzyl Alcohol.....	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U
2-Methylphenol.....	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U
4-Methylphenol.....	10 U	10 U
N-Nitroso-di-n-propylamine.....	78 %	78 %
Hexachloroethane.....	10 U	10 U
Nitrobenzene.....	10 U	10 U
Isophorone.....	10 U	10 U
2-Nitrophenol.....	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U
Benzoic Acid(2).....	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U
Naphthalene.....	56 %	52 %
4-Chloroaniline.....	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U
4-Chloro-3-methylphenol.....	78 %	78 %
2-Methylnaphthalene.....	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U

	Cust ID:	B.S.	B.S.D.
	RFW#:	B.S.	B.S.D.
2,4,6-Trichlorophenol	10 U		10 U
2,4,5-Trichlorophenol(2)	50 U		50 U
2-Chloronaphthalene	10 U		10 U
2-Nitroaniline(2)	50 U		50 U
Dimethyl Phthalate	10 U		10 U
Acenaphthylene	10 U		10 U
3-Nitroaniline(2)	50 U		50 U
Acenaphthene	82 ‡		84 ‡
2,4-Dinitrophenol(2)	50 U		50 U
4-Nitrophenol(2)	18 ‡		26 ‡
Dibenzofuran	10 U		10 U
2,4-Dinitrotoluene	64 ‡		80 ‡
2,6-Dinitrotoluene	10 U		10 U
Diethyl Phthalate	10 U		10 U
4-Chlorophenyl-phenylether	10 U		10 U
Fluorene	10 U		10 U
4-Nitroaniline(2)	50 U		50 U
4,6-Dinitro-2-methylphenol(2)	50 U		50 U
N-Nitrosodiphenylamine(1)	10 U		10 U
4-Bromophenyl-phenylether	10 U		10 U
Hexachlorobenzene	10 U		10 U
Pentachlorophenol(2)	38 ‡		36 ‡
Phenanthrene	10 U		10 U
Anthracene	10 U		10 U
di-n-Butyl Phthalate	10 U		10 U
Fluoranthene	10 U		10 U
Pyrene	62 ‡		68 ‡
Butyl Benzyl Phthalate	NR		NR
3,3'-Dichlorobenzidine(3)	20 U		20 U
Benzo(a)Anthracene	10 U		10 U
bis(2-Ethylhexyl)Phthalate	10 U		10 U
Chrysene	10 U		10 U
di-n-Octyl Phthalate	10 U		10 U
Benzo(b)Fluoranthene	10 U		10 U
Benzo(k)Fluoranthene	10 U		10 U
Benzo(a)Pyrene	10 U		10 U
Indeno(1,2,3-cd)Pyrene	10 U		10 U
Dibenz(a,h)Anthracene	10 U		10 U
Benzo(g,h,i)Perylene	10 U		10 U



WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-396- Client: LUKE AFB Page: 1

Sample Information	Cust ID:	02001E001	02001E002	01004P001	02101M001	02001E003	BLANK
MDL=10xD.F., except (2)=50x, (3)=20x	RFW#:	0010	0020	0030	0040	0060	BLANK
	Matrix:	Water	Water	Water	Water	Water	Water
	D.F.:	1	1	1	1	1	1
	Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
2-Fluorophenol:	21	72	63	53	45	75	
Phenol-d5:	21	59	55	40	41	53	
2,4,6-Br3-Phenol:	32	110	45	72	58	120	
Nitrobenzene-d5:	22	38	71	54	26	78	
2-Fluorobiphenyl:	25	42	88	110	74	80	
p-Terphenyl-d14:	25	39	88	94	84	50	
Phenol.....	10	10	10	10	10	10	10
bis(2-Chloroethyl) Ether.....	10	10	10	10	10	10	10
2-Chlorophenol.....	10	10	10	10	10	10	10
1,3-Dichlorobenzene.....	10	10	10	10	10	10	10
1,4-Dichlorobenzene.....	10	10	10	10	10	10	10
Benzyl Alcohol.....	10	10	10	10	10	10	10
1,2-Dichlorobenzene.....	10	10	10	10	10	10	10
2-Methylphenol.....	10	10	10	10	10	10	10
bis(2-Chloroisopropyl) Ether.....	10	10	10	10	10	10	10
4-Methylphenol.....	10	10	10	10	10	10	10
N-Nitroso-di-n-propylamine.....	10	10	10	10	10	10	10
Hexachloroethane.....	10	10	10	10	10	10	10
Nitrobenzene.....	10	10	10	10	10	10	10
Isophorone.....	10	10	10	10	10	10	10
2-Nitrophenol.....	10	10	10	10	10	10	10
2,4-Dimethylphenol.....	10	10	10	10	10	10	10
Benzoic Acid(2).....	50	50	50	50	50	50	50
bis(2-Chloroethoxy)Methane.....	10	10	10	10	10	10	10
2,4-Dichlorophenol.....	10	10	10	10	10	10	10
1,2,4-Trichlorobenzene.....	10	10	10	10	10	10	10
Naphthalene.....	10	10	10	10	10	10	10
4-Chloroaniline.....	10	10	10	10	10	10	10
Hexachlororbutadiene.....	10	10	10	10	10	10	10
4-Chloro-3-methylphenol.....	10	10	10	10	10	10	10
2-Methylnaphthalene.....	10	10	10	10	10	10	10
Hexachlorocyclopentadiene.....	10	10	10	10	10	10	10

RFW Batch Number: 8612-396-

Client: LUKE AFB

Page: 1

Cust ID: 02001E001 02001E002 01004P001 02101M001 02001E003 BLANK  
RFW#: 0010 0020 0030 0040 0060 BLANK

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	12	10 U	10 U	14	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

Page: 2

RFW Batch Number: 8612-396-

Client: LUKE AFB

Cust ID: BLK SPK BLK SPK BLK SPK DUP  
 RFW#: BLK SPK BLK SPK BLK SPK DUP  
 Matrix: Water Water  
 D.F.: 1 1  
 Units: ug/l ug/l

Surrogate	Recovery (%)	2-Fluorophenol:	Phenol-d5:	2,4,6-Br3-Phenol:	Nitrobenzene-d5:	2-Fluorobiphenyl:	p-Terphenyl-d14:
Phenol.....	74 %	68 %					
bis(2-Chloroethyl) Ether.....	47 %	44 %					
2-Chlorophenol.....	110 %	100 %					
1,3-Dichlorobenzene.....	78 %	80 %					
1,4-Dichlorobenzene.....	82 %	82 %					
Benzyl Alcohol.....	60 %	62 %					
1,2-Dichlorobenzene.....	56 %	55 %					
2-Methylphenol.....	10 U	10 U					
bis(2-Chloroisopropyl) Ether.....	96 %	90 %					
4-Methylphenol.....	10 U	10 U					
N-Nitroso-di-n-propylamine.....	56 %	52 %					
Hexachloroethane.....	10 U	10 U					
Nitrobenzene.....	10 U	10 U					
Isophorone.....	10 U	10 U					
2-Nitrophenol.....	10 U	10 U					
2,4-Dimethylphenol.....	10 U	10 U					
Benzoic Acid(2).....	50 U	50 U					
bis(2-Chloroethoxy)Methane.....	10 U	10 U					
2,4-Dichlorophenol.....	10 U	10 U					
1,2,4-Trichlorobenzene.....	56 %	52 %					
Naphthalene.....	10 U	10 U					
4-Chloroaniline.....	10 U	10 U					
Hexachlorobutadiene.....	10 U	10 U					
4-Chloro-3-methylphenol.....	78 %	78 %					
2-Methylnaphthalene.....	10 U	10 U					
Hexachlorocyclopentadiene.....	10 U	10 U					

Cust ID:	BLK SPK	BLK SPK	BLK SPK	DUP
RFW#:	BLK SPK	BLK SPK	BLK SPK	DUP

2,4,6-Trichlorophenol.....	10 U			10 U
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2,4,6-Trichlorophenol.....	10 U			10 U
2,4,5-Trichlorophenol(2).....	50 U			50 U
2-Chloronaphthalene.....	10 U			10 U
2-Nitroaniline(2).....	50 U			50 U
Dimethyl Phthalate.....	10 U			10 U
Acenaphthylene.....	10 U			10 U
3-Nitroaniline(2).....	50 U			50 U
Acenaphthene.....	82 *			84 *
2,4-Dinitrophenol(2).....	50 U			50 U
4-Nitrophenol(2).....	18 *			26 *
Dibenzofuran.....	10 U			10 U
2,4-Dinitrotoluene.....	64 *			80 *
2,6-Dinitrotoluene.....	10 U			10 U
Diethyl Phthalate.....	10 U			10 U
4-Chlorophenyl-phenylether.....	10 U			10 U
Fluorene.....	10 U			10 U
4-Nitroaniline(2).....	50 U			50 U
4,6-Dinitro-2-methylphenol(2).....	50 U			50 U
N-Nitrosodiphenylamine(1).....	10 U			10 U
4-Bromophenyl-phenylether.....	10 U			10 U
Hexachlorobenzene.....	10 U			10 U
Pentachlorophenol(2).....	38 *			36 *
Phenanthrene.....	10 U			10 U
Anthracene.....	10 U			10 U
di-n-Butyl Phthalate.....	10 U			10 U
Fluoranthene.....	10 U			10 U
Pyrene.....	62 *			68 *
Butyl Benzyl Phthalate.....	10 U			10 U
3,3'-Dichlorobenzidine(3).....	20 U			20 U
Benzo(a)Anthracene.....	10 U			10 U
bis(2-Ethylhexyl)Phthalate.....	10 U			10 U
Chrysene.....	10 U			10 U
di-n-Octyl Phthalate.....	10 U			10 U
Benzo(b)Fluoranthene.....	10 U			10 U
Benzo(k)Fluoranthene.....	10 U			10 U
Benzo(a)Pyrene.....	10 U			10 U
Indeno(1,2,3-cd)Pyrene.....	10 U			10 U
Dibenz(a,h)Anthracene.....	10 U			10 U
Benzo(g,h,i)Perylene.....	10 U			10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-402- Client: LUKE AFB Page: 1

Cust ID: 02002E002 02002E003 05108M001 02002E001 02003E002 02003E002  
 RFW#: 0010 0020 0040 0120 0130 0130  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l  
 MDL=10xD.F., except (2)=50X, (3)=20X

Surrogate 2-Fluorophenol: 53 % 51 % 61 % 56 % 56 % 46 %  
 Recovery (%) Phenol-d5: 44 % 46 % 68 % 60 % 63 % 57 %  
 2,4,6-Br3-Phenol: 94 % 88 % 38 % 72 % 53 % 70 %  
 Nitrobenzene-d5: 46 % 32 % 73 % 58 % 71 % 65 %  
 2-Fluorobiphenyl: 74 % 86 % 75 % 61 % 48 % 61 %  
 p-Terphenyl-d14: 80 % 96 % 102 % 81 % 75 % 69 %

Compound	02002E002	02002E003	05108M001	02002E001	02003E002	02003E002
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) Ether	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2)	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U

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Cust ID: 02002E002 02002E003 05108M001 02002E001 02003E002 02003E002 02003E002  
RWF#: 0010 0020 0040 0120 0130 0130 0130 DUP

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	18	57	10 U	13	16	16
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

Client: LUKE AFB

RFW Batch Number: 8612-402-

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Sample Information	MDL=10xD.F., except (2)=50x, (3)=20x	0140	0160	0170	0180	0200	0210
Surrogate	Recovery (%)	Water	Water	Water	Water	Water	Water
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
2-Fluorophenol:	64 %	64 %	54 %	47 %	57 %	62 %	62 %
Phenol-d5:	73 %	53 %	51 %	42 %	59 %	49 %	49 %
2,4,6-Br3-Phenol:	76 %	41 %	39 %	24 %	25 %	27 %	27 %
Nitrobenzene-d5:	91 %	97 %	74 %	69 %	63 %	66 %	66 %
2-Fluorobiphenyl:	72 %	81 %	80 %	69 %	58 %	52 %	52 %
p-Terphenyl-d14:	95 %	68 %	96 %	63 %	70 %	69 %	69 %
Phenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Cust ID: 02003E003 01009P001 01010P001 01010P101 01001P001 01007P001  
RFW#: 0140 0160 0170 0180 0200 0210

2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	12	10 U	16	36	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U



WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-402 - Client: LUKE AFB Page: 3

Sample Information	Cust ID	LAB	BLK	SPK	Water	ug/l	BLK	SPK	Water	ug/l	BLK	SPK	Water	ug/l	BLK	SPK	Water	ug/l	
MDL=10xD.F., except	01011P001	02003E002			1	54			1	51			1	56			1	60	
(2)=50x, (3)=20x	0220	0130 MS			1	50			1	34			1	38			1	38	
					ug/l	29			ug/l	18			ug/l	117			ug/l	113	
Surrogate	2-Fluorophenol:				47	76			67	69			87	84			91	84	
Recovery (%)	Phenol-d5:				74	68			55	71			76	76			76	76	
	2,4,6-Br3-Phenol:				68	78			51	69			87	84			91	84	
	Nitrobenzene-d5:				78	78			55	71			76	76			76	76	
	2-Fluorobiphenyl:				68	68			55	71			76	76			76	76	
	p-Terphenyl-d14:				78	78			55	71			76	76			76	76	
Phenol.....					68	10			10	10			28	28			28	28	
bis(2-Chloroethyl)Ether.....					10	10			10	10			10	10			10	10	
2-Chlorophenol.....					10	10			10	10			80	80			80	80	
1,3-Dichlorobenzene.....					10	10			10	10			10	10			10	10	
1,4-Dichlorobenzene.....					10	10			10	10			60	60			60	60	
Benzyl Alcohol.....					10	10			10	10			10	10			10	10	
1,2-Dichlorobenzene.....					10	10			10	10			10	10			10	10	
2-Methylphenol.....					10	10			10	10			10	10			10	10	
bis(2-Chloroisopropyl) Ether.....					10	10			10	10			10	10			10	10	
4-Methylphenol.....					10	10			10	10			10	10			10	10	
N-Nitroso-di-n-propylamine.....					64	64			10	10			54	54			54	54	
Hexachloroethane.....					10	10			10	10			10	10			10	10	
Nitrobenzene.....					10	10			10	10			10	10			10	10	
Isophorone.....					10	10			10	10			10	10			10	10	
2-Nitrophenol.....					10	10			10	10			10	10			10	10	
2,4-Dimethylphenol.....					10	10			10	10			10	10			10	10	
Benzoic Acid(2).....					50	50			50	50			50	50			50	50	
bis(2-Chloroethoxy)Methane.....					10	10			10	10			10	10			10	10	
2,4-Dichlorophenol.....					10	10			10	10			10	10			10	10	
1,2,4-Trichlorobenzene.....					38	38			10	10			68	68			68	68	
Naphthalene.....					10	10			10	10			10	10			10	10	
4-Chloroaniline.....					10	10			10	10			10	10			10	10	
Hexachlorobutadiene.....					10	10			10	10			10	10			10	10	
4-Chloro-3-methylphenol.....					10	10			10	10			96	96			96	96	
2-Methylnaphthalene.....					10	10			10	10			10	10			10	10	
Hexachloro cyclopentadiene.....					10	10			10	10			10	10			10	10	

	Cust ID: 01011P001		02003E002		LAB BLANK	BLK SPK		BLK SP		DUP LAB	BLANK
	0220	0130 MS	LAB BLANK	0130 MS		BLK SPK	BLK SPK	BLK SP	DUP LAB		

2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	10 U	72 *	72 *	10 U	10 U	76 *	76 *	88 *	88 *	10 U	10 U
2,4-Dinitrophenol(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2)	50 U	56 *	56 *	50 U	50 U	25 *	25 *	28 *	28 *	50 U	50 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	10 U	76 *	76 *	10 U	10 U	54 *	54 *	88 *	88 *	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2)	50 U	42 *	42 *	50 U	50 U	64 *	64 *	48 *	48 *	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	80 *	80 *	10 U	10 U	52 *	52 *	60 *	60 *	10 U	10 U
Butyl Benzyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3)	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-402- Client: LUKE AFB Page: 1

Sample Information  
MDL=10xD.F., except  
(2)=50X, (3)=20X

Cust ID: BLNK SPK BLK SP DUP  
RFW#: BLNK SPK BLK SP DUP  
Matrix: Water  
D.F.: 1  
Units: ug/l

Surrogate	2-Fluorophenol:	74 %	68 %
Recovery (%)	Phenol-d5:	47 %	44 %
	2,4,6-Br3-Phenol:	110 %	100 %
	Nitrobenzene-d5:	78 %	80 %
	2-Fluorobiphenyl:	82 %	82 %
	p-Terphenyl-d14:	60 %	62 %

Phenol.....	56 %	55 %
bis(2-Chloroethyl) Ether.....	10 U	10 U
2-Chlorophenol.....	96 %	90 %
1,3-Dichlorobenzene.....	10 U	10 U
1,4-Dichlorobenzene.....	56 %	52 %
Benzyl Alcohol.....	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U
2-Methylphenol.....	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U
4-Methylphenol.....	10 U	10 U
N-Nitroso-di-n-propylamine.....	78 %	78 %
Hexachloroethane.....	10 U	10 U
Nitrobenzene.....	10 U	10 U
Isophorone.....	10 U	10 U
2-Nitrophenol.....	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U
Benzoic Acid(2).....	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U
1,2,4-Trichlorobenzene.....	56 %	52 %
Naphthalene.....	10 U	10 U
4-Chloroaniline.....	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U
4-Chloro-3-methylphenol.....	78 %	78 %
2-Methylnaphthalene.....	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U

RFW Batch Number: 8612-402-

Client: LUKE AFB

Page: 1

Cust ID: BLNK SPK BLK SP DUP  
RFW#: BLNK SPK BLK SP DUP

	RFW#	BLNK SPK	BLK SP	DUP
2,4,6-Trichlorophenol	10	U	10	U
2,4,5-Trichlorophenol(2)	50	U	50	U
2-Chloronaphthalene	10	U	10	U
2-Nitroaniline(2)	50	U	50	U
Dimethyl Phthalate	10	U	10	U
Acenaphthylene	10	U	10	U
3-Nitroaniline(2)	50	U	50	U
Acenaphthene	82	‡	84	‡
2,4-Dinitrophenol(2)	50	U	50	U
4-Nitrophenol(2)	50	‡	50	‡
Dibenzofuran	10	U	10	U
2,4-Dinitrotoluene	18	‡	26	‡
2,6-Dinitrotoluene	10	U	10	U
Diethyl Phthalate	10	U	10	U
4-Chlorophenyl-phenylether	10	U	10	U
Fluorene	10	U	10	U
4-Nitroaniline(2)	50	U	50	U
4,6-Dinitro-2-methylphenol(2)	50	U	50	U
N-Nitrosodiphenylamine(1)	10	U	10	U
4-Bromophenyl-phenylether	10	U	10	U
Hexachlorobenzene	10	U	10	U
Pentachlorophenol(2)	38	‡	36	‡
Phenanthrene	10	U	10	U
Anthracene	10	U	10	U
di-n-Butyl Phthalate	10	U	10	U
Fluoranthene	10	U	10	U
Pyrene	61	‡	68	‡
Butyl Benzyl Phthalate	10	U	10	U
3,3'-Dichlorobenzidine(3)	10	U	20	U
Benzo(a)Anthracene	10	U	10	U
bis(2-Ethylhexyl)Phthalate	10	U	10	U
Chrysene	10	U	10	U
di-n-Octyl Phthalate	10	U	10	U
Benzo(b)Fluoranthene	10	U	10	U
Benzo(k)Fluoranthene	10	U	10	U
Benzo(a)Pyrene	10	U	10	U
Indeno(1,2,3-cd)Pyrene	10	U	10	U
Dibenz(a,h)Anthracene	10	U	10	U
Benzo(g,h,i)Perylene	10	U	10	U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-417      Client: LUKE AFB      Page: 1

Cust ID: 05107M001      05107M001      05107M101      LAB BLANK      BLNK SPK      BLNK SPK      DUP  
 RFW#: 0010      0010 DUP      0020      LAB BLANK      BLNK SPK      BLNK SPK      DUP  
 Matrix: Water      Water      Water      Water      Water      Water  
 MDL=10xD.F., except      1      1      1      1      1  
 (2)=50x, (3)=20x      ug/l      ug/l      ug/l      ug/l      ug/l

Surrogate	40 %	41 %	51 %	51 %	56 %	60 %
2-Fluorophenol:	40 %	41 %	51 %	51 %	56 %	60 %
Phenol-d5:	33 %	33 %	39 %	34 %	38 %	38 %
Recovery (%)	67 %	72 %	36 %	18 %	117 %	113 %
2,4,6-Br3-Phenol:	88 %	89 %	88 %	67 %	87 %	91 %
Nitrobenzene-d5:	57 %	57 %	55 %	69 %	76 %	84 %
2-Fluorobiphenyl:	55 %	50 %	43 %	55 %	46 %	43 %
p-Terphenyl-d14:						
Phenol.....	10 U	10 U	10 U	10 U	28 %	28 %
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	10 U	80 %	84 %
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	60 %	68 %
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	54 %	58 %
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	68 %	70 %
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	96 %	84 %
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U

Cust ID: 05107M001 05107M001 05107M101 LAB BLANK BLNK SPK BLK SP DUP  
 RFW#: 0010 0010 DUP 0020 LAB BLANK BLNK SPK BLK SP DUP

	fl	fl	fl	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U	76 \$	76 \$	88 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	25 \$	25 \$	28 \$
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	54 \$	88 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	64 \$	64 \$	48 \$
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	38	38	34
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	52 \$	52 \$	60 \$
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-417- Client: LUKE AFB Page: 2

Sample Information  
Cust ID: 05107M001  
MDL=10XD.F., except RFW#: 0010 MS  
(2)=50X, (3)=20X Matrix: Water  
D.F.: 1  
Units: ug/l

Surrogate	Recovery (%)	2-Fluorophenol:	Phenol-d5:	2,4,6-Br3-Phenol:	Nitrobenzene-d5:	2-Fluorobiphenyl:	p-Terphenyl-d14:
Phenol	27	41	37	99	112	55	53
bis(2-Chloroethyl) Ether	10 U						
2-Chlorophenol	61						
1,3-Dichlorobenzene	10 U						
1,4-Dichlorobenzene	64						
Benzyl Alcohol	10 U						
1,2-Dichlorobenzene	10 U						
2-Methylphenol	10 U						
bis(2-Chloroisopropyl) Ether	10 U						
4-Methylphenol	10 U						
N-Nitroso-di-n-propylamine	52						
Hexachloroethane	10 U						
Nitrobenzene	10 U						
Isophorone	10 U						
2-Nitrophenol	10 U						
2,4-Dimethylphenol	10 U						
Benzoic Acid(2)	50 U						
bis(2-Chloroethoxy)Methane	10 U						
2,4-Dichlorophenol	10 U						
1,2,4-Trichlorobenzene	102						
Naphthalene	10 U						
4-Chloroaniline	10 U						
Hexachlorobutadiene	10 U						
4-Chloro-3-methylphenol	100						
2-Methylnaphthalene	10 U						
Hexachlorocyclopentadiene	10 U						

LUKE AFB

RFW Batch Number: 8612-417-

Client:

Cust ID: 05107M001  
RFW#: 0010 MS

f1-----f1-----f1-----f1-----f1-----f1-----f1

2,4,6-Trichlorophenol.....	10 U
2,4,5-Trichlorophenol(2).....	50 U
2-Chloronaphthalene.....	10 U
2-Nitroaniline(2).....	50 U
Dimethyl Phthalate.....	10 U
Acenaphthylene.....	10 U
3-Nitroaniline(2).....	50 U
Acenaphthene.....	28 \$
2,4-Dinitrophenol(2).....	50 U
4-Nitrophenol(2).....	22 \$
Dibenzofuran.....	10 U
2,4-Dinitrotoluene.....	70 \$
2,6-Dinitrotoluene.....	10 U
Diethyl Phthalate.....	10 U
4-Chlorophenyl-phenylether.....	10 U
Fluorene.....	10 U
4-Nitroaniline(2).....	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U
N-Nitrosodiphenylamine(1).....	10 U
4-Bromophenyl-phenylether.....	10 U
Hexachlorobenzene.....	10 U
Pentachlorophenol(2).....	120 \$
Phenanthrene.....	10 U
Anthracene.....	10 U
di-n-Butyl Phthalate.....	34
Fluoranthene.....	10 U
Pyrene.....	44 \$
Butyl Benzyl Phthalate.....	10 U
3,3'-Dichlorobenzidine(3).....	20 U
Benzo(a)Anthracene.....	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U
Chrysene.....	10 U
di-n-Octyl Phthalate.....	10 U
Benzo(b)Fluoranthene.....	10 U
Benzo(k)Fluoranthene.....	10 U
Benzo(a)Pyrene.....	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U
Dibenz(a,h)Anthracene.....	10 U
Benzo(g,h,i)Perylene.....	10 U



WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8612-433- Client: LUKE AFB Page: 1

Cust ID: 02003E001 LAB BLANK BLNK SPK BLK SP DUP  
 RFW#: 0010 LAB BLANK BLNK SPK BLK SP DUP  
 Matrix: Water 1 Water 1  
 D.F.: 1  
 Units: ug/l ug/l

Surrogate (%)	2-Fluorophenol:	45 %	51 %	56 %	60 %
Phenol-d5:	34 %	34 %	38 %	38 %	38 %
2,4,6-Br3-Phenol:	104 %	18 %	117 %	113 %	113 %
Nitrobenzene-d5:	66 %	67 %	87 %	91 %	91 %
2-Fluorobiphenyl:	38 %	69 %	76 %	84 %	84 %
p-Terphenyl-d14:	48 %	55 %	46 %	43 %	43 %
Phenol.....	10 U	10 U	28 %	28 %	28 %
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	80 %	84 %	84 %
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	60 %	68 %	68 %
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	54 %	58 %	58 %
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	68 %	70 %	70 %
Naphthalene.....	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	96 %	84 %	84 %
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U

Cust ID: 02003E001  
 RFW#: 0010

	LAB BLANK	BLK SPK	BLK SP	DUP
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	76 \$	88 \$	88 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	25 \$	28 \$	28 \$
Dibenzofuran.....	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	54 \$	88 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	64 \$	48 \$
Phenanthrene.....	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	38	34
Fluoranthene.....	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	52 \$	60 \$
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-484- Client: LUKE AFB Page: 1

Sample Information  
MDL=10xD.F., except (2)=50x, (3)=20x

Cust ID: BLANK BLK SPK BLK SPK D 03103M001 03103M201 03001W001  
 RFW#: BLANK BLK SPK BLK SPK D 0030 0050 0010  
 Matrix: Water Water Water Water Water  
 D.F.: 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l

Surrogate	58 %	56 %	53 %	41 %	55 %	51 %
2-Fluorophenol:	58 %	56 %	53 %	41 %	55 %	51 %
Phenol-d5:	37 %	33 %	32 %	25 %	35 %	32 %
2,4,6-Br3-Phenol:	126 %	127 %	134 %	106 %	95 %	93 %
Nitrobenzene-d5:	72 %	72 %	72 %	48 %	60 %	48 %
2-Fluorobiphenyl:	94 %	108 %	106 %	74 %	74 %	70 %
p-Terphenyl-d14:	108 %	110 %	122 %	60 %	74 %	60 %
Phenol.....	10 U	31 %	29 %	10 U	10 U	10 U
bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	88 %	86 %	10 U	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	76 %	80 %	10 U	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	70 %	70 %	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	88 %	90 %	10 U	10 U	10 U
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	77 %	76 %	10 U	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U

Cust ID:	BLANK	BLK SPK	BLK SPK	BLK SPK D	BLK SPK D	03103M001	03103M201	03001W001
RFW#:	BLANK	BLK SPK	BLK SPK	BLK SPK D	BLK SPK D	0030	0050	0010
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	100 \$	100 \$	100 \$	100 \$	100 \$	100 \$	100 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	14 \$	13 \$	13 \$	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	44 \$	44 \$	44 \$	44 \$	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	46 \$	46 \$	49 \$	49 \$	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	104 \$	104 \$	114 \$	114 \$	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	13
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-484- Client: LUKE AFB Page: 2

Sample Information  
MDL=10xD.F., except (2)=50x, (3)=20x  
Cust ID: 03102M001 03102M001D 03103M101 03103M101MS  
RFW#: 0020 0020 DUP 0040 0040 MS  
Matrix: Water Water Water Water  
D.F.: 1 1 1 1  
Units: ug/l ug/l ug/l ug/l

Surrogate	Recovery (%)	2-Fluorophenol:	Phenol-d5:	2,4,6-Br3-Phenol:	Nitrobenzene-d5:	2-Fluorobiphenyl:	p-Terphenyl-d14:	Phenol	bis(2-Chloroethyl) Ether	2-Chlorophenol	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Benzyl Alcohol	1,2-Dichlorobenzene	2-Methylphenol	bis(2-Chloroisopropyl) Ether	4-Methylphenol	N-Nitroso-di-n-propylamine	Hexachloroethane	Nitrobenzene	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Benzoic Acid(2)	bis(2-Chloroethoxy) Methane	2,4-Dichlorophenol	1,2,4-Trichlorobenzene	Naphthalene	4-Chloroaniline	Hexachlorobutadiene	4-Chloro-3-methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene	
		76 %	61 %	44 %	44 %	55 %	33 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
		46 %	35 %	27 %	47 %	36 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
		160 %	138 %	47 %	54 %	99 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
		14 %	42 %	48 %	48 %	42 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
		22 %	62 %	38 %	38 %	50 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
		22 %	50 %	10 U	10 U	44 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Cust ID: 03102M001 03102M001D 03103M101 03103M101MS

RFW#: 0020 0020 DUP 0040 0040 MS

	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	48 §	48 §
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	25 §	25 §
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	26 §	26 §
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 §	50 §
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	50 §	50 §
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U



Pesticide/PCB Results

Water

Round 1

1036B

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8612-374 Client: LUKE AFB Page: 1

Cust ID: 04104M001 04105M001 04106M001  
 RFW#: 0010 0020 0030  
 Matrix: Water Water Water  
 D.F.: 2 5 1  
 Units: ug/l ug/l ug/l

Surrogate: Di-n-butylchloredate: I %

Analyte:

Alpha-BHC.....	0.1 U	0.3 U	0.05 U
Beta-BHC.....	0.1 U	0.3 U	0.05 U
Delta-BHC.....	0.1 U	0.3 U	0.05 U
Gamma-BHC (Lindane).....	0.1 U	0.3 U	0.05 U
Heptachlor.....	0.1 U	0.3 U	0.05 U
Aldrin.....	0.1 U	0.3 U	0.05 U
Heptachlor Epoxide.....	0.1 U	0.3 U	0.05 U
Endosulfan I.....	0.1 U	0.3 U	0.05 U
Dieldrin.....	0.2 U	0.5 U	0.1 U
4,4'-DDE.....	0.2 U	0.5 U	0.1 U
Endrin.....	0.2 U	0.5 U	0.1 U
Endosulfan II.....	0.2 U	0.5 U	0.1 U
4,4'-DDD.....	0.2 U	0.5 U	0.1 U
Endrin Aldehyde.....	0.2 U	0.5 U	0.1 U
Endosulfan Sulfate.....	0.2 U	0.5 U	0.1 U
4,4'-DDT.....	0.2 U	0.5 U	0.1 U
Methoxychlor.....	1 U	3 U	0.5 U
Endrin Ketone.....	0.2 U	0.5 U	0.1 U
Chlordane.....	1 U	3 U	0.5 U
Toxaphene.....	2 U	5 U	1 U
Aroclor-1016.....	1 U	3 U	0.5 U
Aroclor-1221.....	1 U	3 U	0.5 U
Aroclor-1232.....	1 U	3 U	0.5 U
Aroclor-1242.....	1 U	3 U	0.5 U
Aroclor-1248.....	1 U	3 U	0.5 U
Aroclor-1254.....	2 U	5 U	1 U
Aroclor-1260.....	2 U	5 U	1 U

I=Interference

U=Analyzed,not detected. B=Present in blank. NR=Not requested.



WESTON ANALYTICS  
PESTICIDES/PCB'S  
COMMERCIAL LIST

RFW Batch Number: 8612-374 Client: LUKE AFB Page: 6

Sample Information  
Cust ID: 02003E002 02003E002 02002E003 04104M001  
RWF#: 0130 D 0130 MS 0020 D 0010 MS  
Matrix: Water Water Water  
D.F.: 20 20 1  
Units: ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 123 % 90 % 135 % I % \$  
-----fl-----fl-----fl-----fl-----fl-----fl

Analyte:

Alpha-BHC.....	1 U	1 U	1 U	0.05 U
Beta-BHC.....	1 U	1 U	1 U	0.05 U
Delta-BHC.....	1 U	1 U	1 U	0.05 U
Gamma-BHC (Lindane).....	1 U	1 U	1 U	83 %
Heptachlor.....	1 U	79 %	1 U	97 %
Aldrin.....	1 U	1 U	1 U	92 %
Heptachlor Epoxide.....	1 U	1 U	1 U	0.05 U
Endosulfan I.....	1 U	1 U	1 U	0.05 U
Dieldrin.....	2 U	2 U	2 U	93 %
4,4'-DDE.....	2 U	2 U	2 U	0.1 U
Endrin.....	2 U	2 U	2 U	0.1 U
Endosulfan II.....	2 U	2 U	2 U	0.1 U
4,4'-DDD.....	2 U	2 U	2 U	0.1 U
Endrin Aldehyde.....	2 U	2 U	2 U	0.1 U
Endosulfan Sulfate.....	2 U	2 U	2 U	0.1 U
4,4'-DDT.....	2 U	88 %	2 U	90 %
Methoxychlor.....	10 U	10 U	10 U	0.5 U
Endrin Ketone.....	2 U	2 U	2 U	0.1 U
Chlordane.....	10 U	10 U	10 U	0.5 U
Toxaphene.....	20 U	20 U	20 U	1 U
Aroclor-1016.....	10 U	10 U	10 U	0.5 U
Aroclor-1221.....	10 U	10 U	10 U	0.5 U
Aroclor-1232.....	10 U	10 U	10 U	0.5 U
Aroclor-1242.....	10 U	10 U	10 U	0.5 U
Aroclor-1248.....	10 U	10 U	10 U	0.5 U
Aroclor-1254.....	20 U	20 U	20 U	1 U
Aroclor-1260.....	20 U	20 U	20 U	1 U

I=Interference  
U=Analyzed,not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8612-374

Client: LUKE AFB

Cust ID: BLANK B.S. B.S.D.  
 RFW#: BLANK B.S. B.S.D.  
 Matrix: Water 1 1  
 D.F.: 1 ug/l ug/l  
 Units: ug/l ug/l

Surrogate: Di-n-butylchloroendate: 107 \$ fl 106 \$ fl 109 \$ fl \$ fl \$ fl

Analyte:

Alpha-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC.....	0.05 U	0.05 U	81 \$	0.05 U
Gamma-BHC (Lindane).....	0.05 U	106 \$	108 \$	0.05 U
Heptachlor.....	0.05 U	88 \$	90 \$	0.05 U
Aldrin.....	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide.....	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I.....	0.05 U	98 \$	102 \$	0.05 U
Diieldrin.....	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE.....	0.1 U	0.1 U	0.1 U	0.1 U
Endrin.....	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II.....	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD.....	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde.....	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate.....	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT.....	0.1 U	98 \$	101 \$	0.1 U
Methoxychlor.....	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone.....	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane.....	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene.....	1 U	1 U	1 U	1 U
Aroclor-1016.....	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221.....	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232.....	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242.....	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248.....	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254.....	1 U	1 U	1 U	1 U
Aroclor-1260.....	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8612-387

Client: LUKE AFB

Page: 2

Sample Information  
 Cust ID: 06109M001 06110M001 06109M201 06111M001 06111M101  
 RFW#: 0010 0020 0030 0040 0050  
 Matrix: Water Water Water Water Water  
 D.F.: 1 1 1 10 10  
 Units: ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloredate: 58 ug/l 167 ug/l I ug/l I ug/l I ug/l I ug/l

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Heptachlor	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Aldrin	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Dieldrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
4,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Endrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	10 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	10 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	10 U

I=Interference

U=Analyzed,not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8612-396

Client: LUKE AFB

Cust ID: 02001E001 02001E002 01004P001 02101M001 02001E003

RFW#: 0010 0020 0030 0040 0060  
 Matrix: Water Water Water Water Water  
 D.F.: 5 \* 5 \* 1 1 5 \*  
 Units: ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: I % I % I % I % I %  
 132 % 135 % 132 % 135 % 91 %

Analyte:

Alpha-BHC	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Beta-BHC	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Delta-BHC	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Gamma-BHC (Lindane)	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Heptachlor	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Aldrin	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Heptachlor Epoxide	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Endosulfan I	5 U	2.5 U	0.05 U	0.05 U	2.5 U
Dieldrin	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
4,4'-DDE	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
Endrin	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
Endosulfan II	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
4,4'-DDD	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
Endrin Aldehyde	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
Endosulfan Sulfate	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
4,4'-DDT	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
Methoxychlor	3 U	3 U	0.5 U	0.5 U	3 U
Endrin Ketone	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U
Chlordane	3 U	3 U	0.5 U	0.5 U	3 U
Toxaphene	5 U	5 U	1 U	1 U	5 U
Aroclor-1016	5 U	2.5 U	0.5 U	0.5 U	2.5 U
Aroclor-1221	5 U	2.5 U	0.5 U	0.5 U	2.5 U
Aroclor-1232	3 U	3 U	0.5 U	0.5 U	3 U
Aroclor-1242	3 U	3 U	0.5 U	0.5 U	3 U
Aroclor-1248	3 U	3 U	0.5 U	0.5 U	3 U
Aroclor-1254	5 U	5 U	1 U	1 U	5 U
Aroclor-1260	5 U	5 U	1 U	1 U	5 U

I=Interference \*Samples required multiple dilution factors due to large solvent fronts.  
 U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8612-402 Client: LUKE AFB Page: 4

Cust ID: 02002E002 02002E003 05108M001 02002E001 02003E002 02003E003  
 RFW#: 0010 0020 0040 0120 0130 0140  
 Matrix: Water Water Water Water Water Water  
 D.F.: 10 20 1 20 20 20  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 116 ug/l 98 ug/l I ug/l I ug/l 68 ug/l 63 ug/l

Analyte:

Alpha-BHC.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Beta-BHC.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Delta-BHC.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Gamma-BHC (Lindane).....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Heptachlor.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Aldrin.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Heptachlor Epoxide.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Endosulfan I.....	0.5 U	1 U	0.05 U	0.5 U	1 U	1 U
Dieldrin.....	1 U	2 U	0.1 U	1 U	2 U	2 U
4,4'-DDE.....	1 U	2 U	0.1 U	1 U	2 U	2 U
Endrin.....	1 U	2 U	0.1 U	1 U	2 U	2 U
Endosulfan II.....	1 U	2 U	0.1 U	1 U	2 U	2 U
4,4'-DDD.....	1 U	2 U	0.1 U	1 U	2 U	2 U
Endrin Aldehyde.....	1 U	2 U	0.1 U	1 U	2 U	2 U
Endosulfan Sulfate.....	1 U	2 U	0.1 U	1 U	2 U	2 U
4,4'-DDT.....	1 U	2 U	0.1 U	1 U	2 U	2 U
Methoxychlor.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Endrin Ketone.....	1 U	2 U	0.1 U	1 U	2 U	2 U
Chlordane.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Toxaphene.....	10 U	20 U	1 U	10 U	20 U	20 U
Aroclor-1016.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Aroclor-1221.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Aroclor-1232.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Aroclor-1242.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Aroclor-1248.....	5 U	10 U	0.5 U	5 U	10 U	10 U
Aroclor-1254.....	10 U	20 U	1 U	10 U	20 U	20 U
Aroclor-1260.....	10 U	20 U	1 U	10 U	20 U	20 U

I=Interference

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8612-402

Client: LUKE AFB

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Cust ID: 01009P001 01010P001 01010P101 01001P001 01007P001 01011P001  
 RFW#: 0160 0170 0180 0200 0210 0220  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 133 ug/l I § I § I § I § I § I §

Analyte:

Alpha-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane).....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene.....	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254.....	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260.....	1 U	1 U	1 U	1 U	1 U	1 U

I=Interference

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8612-417 Client: LUKE AFB SITE 05-107 Page: 1

Sample Information	Cust ID:	05107M001	05107M001	05107M001	05107M101	05107M101	BLANK	B.S.
RFW#:	0010	0010 D	0010 MS	0020	0020	0020	BLANK	B.S.
Matrix:	Water	Water	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Surrogate: Di-n-butylchloroendate:	78	80	72	78	78	79	83	83

Analyte:

Alpha-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane).....	0.05 U	0.05 U	87	90	0.05 U	0.05 U	0.05 U	97
Heptachlor.....	0.05 U	0.05 U	90	85	0.05 U	0.05 U	0.05 U	105
Aldrin.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	98
Heptachlor Epoxide.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan II.....	0.1 U	0.1 U	86	0.1 U	0.1 U	0.1 U	0.1 U	99
4,4'-DDE.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin.....	0.1 U	0.1 U	105	0.1 U	0.1 U	0.1 U	0.1 U	120
Endosulfan II.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT.....	0.1 U	0.1 U	92	0.1 U	0.1 U	0.1 U	0.1 U	139
Methoxychlor.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8612-417/433 Client: LUKE AFB

Cust ID: B.S.D. 02003E001  
 RFW#: B.S.D. 0010  
 Matrix: Water  
 D.F.: 1  
 Units: ug/l

Surrogate: Di-n-butylchloroendate: 74 ug/l 70 ug/l

Analyte:

Alpha-BHC	0.05 U	0 U
Beta-BHC	0.05 U	0 U
Delta-BHC	0.05 U	0 U
Gamma-BHC (Lindane)	89 ug/l	0 U
Heptachlor	95 ug/l	0 U
Aldrin	87 ug/l	0 U
Heptachlor Epoxide	0.05 U	0 U
Endosulfan I	0.05 U	0 U
Dieldrin	89 ug/l	0 U
4,4'-DDE	0.1 U	0 U
Endrin	107 ug/l	0 U
Endosulfan II	0.1 U	0 U
4,4'-DDD	0.1 U	0 U
Endrin Aldehyde	0.1 U	0 U
Endosulfan Sulfate	0.1 U	0 U
4,4'-DDT	96 ug/l	0 U
Methoxychlor	0.5 U	0 U
Endrin Ketone	0.1 U	0 U
Chlordane	0 U	0 U
Toxaphene	0 U	0 U
Aroclor-1016	0 U	0 U
Aroclor-1221	0 U	0 U
Aroclor-1232	0 U	0 U
Aroclor-1242	0 U	0 U
Aroclor-1248	0 U	0 U
Aroclor-1254	0 U	0 U
Aroclor-1260	0 U	0 U

U=Analyzed, not detected. B=Present in blank. NR=Not requested.



WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8701-484 Client: LUKE AFB SITE 03 Page: 1

Cust ID: 03001W001 03102M001 03103M001 03103M101 03103M201 03103M201 03103M201  
 RFW#: 0010 0020 0030 0040 0050  
 Matrix: Water Water Water Water Water Water  
 D.F.: 10 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 96 \$ 67 \$ 62 \$ 65 \$ 76 \$ 79 \$

Analyte:

Alpha-BHC.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane).....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I.....	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Diieldrin.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone.....	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene.....	10 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248.....	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254.....	10 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260.....	10 U	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
PESTICIDES/PCB's  
COMMERCIAL LIST

RFW Batch Number: 8701-484 Client: LUKE AFB SITE 03 Page: 2

Sample Information  
Cust ID: 03001W001 B.S. B.S.D.  
RFW#: 0010 MS B.S. B.S.D.  
Matrix: Water 10 Water  
D.F.: 10  
Units: ug/l ug/l

Surrogate: Di-n-butylchloroendate: 90 ug/l 84 ug/l 96 ug/l 105 ug/l

Analyte:

Alpha-BHC	0.5 U	0.05 U	0.5 U	0.5 U	0.5 U
Beta-BHC	0.5 U	0.05 U	0.5 U	0.5 U	0.5 U
Delta-BHC	0.5 U	0.05 U	0.5 U	0.5 U	0.5 U
Gamma-BHC (Lindane)	99 ug	0.05 U	I	125 ug	128 ug
Heptachlor	101 ug	0.05 U	85 ug	118 ug	118 ug
Aldrin	75 ug	0.05 U	89 ug	0.5 U	0.5 U
Heptachlor Epoxide	0.5 U	0.05 U	0.5 U	0.5 U	0.5 U
Endosulfan I	0.5 U	0.05 U	0.5 U	0.5 U	0.5 U
Dieldrin	99 ug	0.1 U	117 ug	127 ug	127 ug
4,4'-DDE	1 U	0.1 U	1 U	1 U	1 U
Endrin	110 ug	0.1 U	107 ug	104 ug	104 ug
Endosulfan II	1 U	0.1 U	1 U	1 U	1 U
4,4'-DDD	1 U	0.1 U	1 U	1 U	1 U
Endrin Aldehyde	1 U	0.1 U	1 U	1 U	1 U
Endosulfan Sulfate	1 U	0.1 U	1 U	1 U	1 U
4,4'-DDT	109 ug	0.1 U	102 ug	107 ug	107 ug
Methoxychlor	5 U	0.5 U	5 U	5 U	5 U
Endrin Ketone	1 U	0.1 U	1 U	1 U	1 U
Chlordane	5 U	0.5 U	5 U	5 U	5 U
Toxaphene	10 U	1 U	10 U	10 U	10 U
Aroclor-1016	5 U	0.5 U	5 U	5 U	5 U
Aroclor-1221	5 U	0.5 U	5 U	5 U	5 U
Aroclor-1232	5 U	0.5 U	5 U	5 U	5 U
Aroclor-1242	5 U	0.5 U	5 U	5 U	5 U
Aroclor-1248	5 U	0.5 U	5 U	5 U	5 U
Aroclor-1254	10 U	1 U	10 U	10 U	10 U
Aroclor-1260	10 U	1 U	10 U	10 U	10 U

U=Analyzed, not detected. B=Present in blank. NR=Not requested



**Oil and Grease, TOC, Nitrate/Nitrite, and TKN Results**

**Water**

**Round 1**

**1036B**

DATE OF REPORT: 01/14/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 12-17-86  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-15-86  
SAMPLE COLLECTED BY: DEB JONES

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
612-374-0010	04-104-M001 ←	.702 MG/L	<0.2 mg/l
-0020	04-105-M001	1.87 MG/L	<0.2 mg/l
-0030	04-106-M001	.604 MG/L	<0.2 mg/l
	METHOD BLANK	<.5 MG/L	

PREPARED BY Emily C. Carfioli  
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WESTON ANALYTICS

APPROVED BY Earl M. Hansen  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 01/14/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 12-18-86  
W.O.NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-16-86  
SAMPLE COLLECTED BY: DEB JONES

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8612-387-0010	06-109-M001	.90 MG/L -	<0.2 mg/l
-0020	06-110-M001	1.00 MG/L -	<0.2 mg/l
-0030	06-109-M201	.50 MG/L-	<0.2 mg/l
-0040	06-111-M001	.50 MG/L-	<0.2 mg/l
-0050	06-111-M101	.90 MG/L-	<.2 mg/l
-005R	REPLICATE	1.10 MG/L	
-005S	PRECISION	20.0 %	
	METHOD BLANK	<0.5 MG/L	
	METHOD BLANK	<0.5 MG/L	
	METHOD SPIKE	4.70 MG/L	
	SPIKE RECOVERY	94.0 %	

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CLIENT: LUKE AFB  
 DATA SUMMARY REPORT FOR  
 SAMPLES RECEIVED: 12-19-86  
 W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-17-86  
 SAMPLE COLLECTED BY: D. JONES

RFWSN	DESCRIPTION	NITRATE	NITRITE	TOTAL ORGANIC CARBON
8612-396-0010	02-001-E001	.560 MG/L	-	20.7 MG/L
-0020	02-001-E002	.590 MG/L	-	17.7 MG/L
-0030	01-004-P001			<.5 MG/L
-0040	02-101-M001	6.73 MG/L	-	.978 MG/L
-004R	REPLICATE			1.17 MG/L
-004S	PRECISION			17.9 %
-0060	02-001-E003	.550 MG/L	-	21.2 MG/L
-006R	REPLICATE	.560 MG/L		
-006S	PRECISION	1.80 %		
	METHOD BLANK	<.1 MG/L		
	METHOD BLANK			<.5 MG/L
	METHOD SPIKE	.970 MG/L		2.13 MG/L
	SPIKE RECOVERY	97.0 %		76.8 %
	METHOD SPIKE	.970 MG/L		
	SPIKE RECOVERY	97.0 %		
	METHOD SPIKE	.970 MG/L		
	SPIKE RECOVERY	97.0 %		

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL KJELDAHL NITROGEN
8612-396-0010	02-001-E001	8.60 mg/l	27.7 MG/L
-0020	02-001-E002	11.2 mg/l	27.8 MG/L
-0030	01-004-P001	<.2 mg/l	
-0040	02-101-M001	<.2 mg/l	<0.10 MG/L
-0060	02-001-E003	9.70 mg/l	24.9 MG/L
	METHOD BLANK		.100 MG/L
	METHOD SPIKE		3.77 MG/L
	SPIKE RECOVERY		91.8 %
	METHOD SPIKE		3.75 MG/L
	SPIKE RECOVERY		91.3 %

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RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL KJELDAHL NITROGEN
3612-402-0010	02-002-E002	4.20 mg/l	27.3 MG/L
-0020	02-002-E003	5.60 mg/l	26.4 MG/L
-0040	05-108-M001	<.2 mg/l	
-0120	02-002-E001	7.50 mg/l	26.7 MG/L
-0130	02-003-E002	2.60 mg/l	27.9 MG/L
-013K	02-003-E002		30.8 MG/L
-013K	SPIKE RECOVERY		72.5%
-0131	02-003-E002	7.10 mg/l	
-0131	SPIKE RECOVERY	105 %	
-013L	02-003-E002		31.1 MG/L
-013L	SPIKE RECOVERY		80.0%
-013R	REPLICATE	2.60 mg/l	
-013S	PRECISION	.000 %	
-0140	02-003-E003	4.10 mg/l	26.5 MG/L
-0160	01-009-P001	<.2 mg/l	
-0170	01-010-P001	<.2 mg/l	
-0180	01-010-P101	<.2 mg/l	
-0200	01-001-P001	<.2 mg/l	
-0210	01-007-P001	.50 MG/L	
-0220	01-011-P001	.60 mg/l	
	METHOD BLANK	<.2 MG/L	.100 MG/L
	METHOD SPIKE	3.50 MG/L	3.77 MG/L
	SPIKE RECOVERY	81.4 %	91.3 %
	METHOD SPIKE	3.20 MG/L	3.75 MG/L
	SPIKE RECOVERY	74.4 %	91.3 %

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CLIENT: LUKE AFB (REVISED)  
 DATA SUMMARY REPORT FOR  
 SAMPLES RECEIVED: 12-20-86  
 W.O.NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-19-86  
 SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	NITRATE	NITRITE	TOTAL ORGANIC CARBON
3612-402-0010	02-002-E002	.440	MG/L	22.0 MG/L
-0020	02-002-E003	.470	MG/L	22.6 MG/L
-0040	05-108-M001			1.50 MG/L
-0120	02-002-E001	.340	MG/L	19.4 MG/L
-0130	02-003-E002	.470	MG/L	16.3 MG/L
-013K	02-003-E002	1.42	MG/L	
-013K	SPIKE RECOVERY	95.0	%	
-013K	MATRIX SPIKE			22.2 MG/L
-013K	SPIKE RECOVERY			113 %
-013R	REPLICATE	.480	MG/L	16.3 MG/L
-013S	PRECISION	2.11	%	13.1 %
-0140	02-003-E003	.310	MG/L	15.0 MG/L
-0160	01-009-P001			<.5 MG/L
-0170	01-010-P001			.643 MG/L
-0180	01-010-P101			.643 MG/L
-0200	01-001-P001			.802 MG/L
-0210	01-007-P001			<.5 MG/L
-0220	01-011-P001			<.5 MG/L
	METHOD BLANK	<.1	MG/L	<.5 MG/L
	METHOD BLANK			<.5 MG/L
	METHOD SPIKE	.970	MG/L	4.47 MG/L
	SPIKE RECOVERY	97%		85.3 %
	METHOD SPIKE	.970	MG/L	4.44 MG/L
	SPIKE RECOVERY	97%		83.7 %



DATE OF REPORT: 01/31/87

CLIENT: LUKE AFB (REVISED)  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 12-23-86  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-22-86  
SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS	TOTAL ORGANIC CARBON
3612-417-0010	05-107-M001		3.33 MG/L
-001K	05-107-M001		8.37 MG/L
-001K	SPIKE RECOVERY		89.8 %
-001R	REPLICATE		3.33 MG/L
-001S	PRECISION		5.02 %
-0020	05-107-M101		.792 MG/L
-0030	03-011-D001	294 mg/kg	
-0040	03-012-D001	202 mg/kg	
-0050	03-013-D001	53.2 mg/kg	
-0060	03-014-D001	8.40 mg/kg	
-0070	03-015-D001	87.1 mg/kg	
-0080	03-016-D001	5.90 mg/kg	
-0090	03-017-D001	558 mg/kg	
-0100	03-018-D001	7.30 mg/kg	
-010K	MATRIX SPIKE	129 mg/kg	
-010K	SPIKE RECOVERY	99.8 %	
-010R	REPLICATE	8.20 mg/kg	
-010S	PRECISION	11.6 %	
-0110	03-019-D001	694 mg/kg	
-0120	03-020-D001	11.7 mg/kg	
-0130	03-19-D101	390 mg/kg	
	METHOD BLANK	<1.0 mg/kg	
	METHOD SPIKE	108 mg/kg	4.53 MG/L
	SPIKE RECOVERY	89.0 %	90.6 %
	METHOD SPIKE	99.2 mg/kg	
	SPIKE RECOVERY	81.5 %	

RFWSN	DESCRIPTION	OIL AND GREASE BY IR
3612-417-0010	05-107-M001	<.2 mg/l
-001K	MATRIX SPIKE	4.30 mg/l
-001K	SPIKE RECOVERY	100 %
-001R	REPLICATE	.40 mg/l
-001S	PRECISION	NC
-0020	05-107-M101	<.2 mg/l

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APPROVED BY *Earl M. Hansen*  
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CLIENT: LUKE AFB (REVISED)  
 DATA SUMMARY REPORT FOR  
 SAMPLES RECEIVED: 12-24-86  
 W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-22-86  
 SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS	NITRATE	NITRITE
3612-433-0010	02-003-E001		.660	MG/L
-001R	REPLICATE		.640	MG/L
-001S	PRECISION		3.08	%
-0020	03-001-D001	14400		mg/kg
-0030	03-002-D001	5020		mg/kg
-0040	03-003-D001	2570		mg/kg
-0050	03-004-D001	<1.0		mg/kg
-0060	03-005-D001	<1.0		mg/kg
-0070	03-006-D001	<1.0		mg/kg
-0080	03-007-D001	<1.0		mg/kg
-0090	03-008-D001	<1.0		mg/kg
-0100	03-009-D001	<1.0		mg/kg
-0110	03-010-D001	3960		mg/kg
	METHOD BLANK		.11	MG/L
	METHOD SPIKE		.990	MG/L
	SPIKE RECOVERY		99	%
	METHOD SPIKE		.990	MG/L
	SPIKE RECOVERY		99	%

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IA
3612-433-0010	02-003-E001	15.8	MG/L
	METHOD BLANK	<.5	MG/L
	METHOD SPIKE		4.00
	SPIKE RECOVERY		93
	METHOD SPIKE		3.70
	SPIKE RECOVERY		96.1

RFWSN	DESCRIPTION	TOTAL KJELDAHL NITROGEN
8612-433-0010	02-003-E001	26.1 MG/L
	METHOD BLANK	.130 MG/L
	METHOD SPIKE	3.75 MG/L
	SPIKE RECOVERY	90.5 %
	METHOD SPIKE	3.91 MG/L
	SPIKE RECOVERY	94.5 %

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DATE OF REPORT: 01/31/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 1-8-87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 1-7-86  
SAMPLE COLLECTED BY: G. HILL

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
7701-484-0010	03-001-W001	17.3 MG/L	3.10 mg/l
-0020	03-102-M001	2.63 MG/L	<.2 mg/l
-0030	03-103-M001	3.01 MG/L	4.10 mg/l
-0040	03-103-M101	3.19 MG/L	1.90 mg/l
-0050	03-103-M201	1.32 MG/L	<.2 mg/l
-005R	REPLICATE	1.32 MG/L	
-005S	PRECISION	.000 %	
	METHOD BLANK	<.5 MG/L	<.2 mg/l
	METHOD SPIKE	4.41 MG/L	4.00 mg/l
	SPIKE RECOVERY	84.1 %	97.6 %
	METHOD SPIKE		4.10 mg/l
	SPIKE RECOVERY		100 %

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**Radiological Results**

**Water**

**Round 1**

**1036B**

Table 1. Results of gamma spectroscopy and gross alpha, gross beta and radium-226 analyses on seven (7) water samples.

Sample Description	Site I.D.	Concentration (pCi/l)						
		Mn-54	Co-60	Cs-134	Cs-137	Gross alpha	Gross beta	Ra-226
8612-402-0160	01-009-P001	<3.6	<4.4	<4.8	<4.2	1.5±1.3	1.6±1.1	<0.07
8612-402-0170	01-010-P001	<3.3	<3.0	<2.3	<3.5	1.4±1.2	1.8±1.1	0.19±0.05
8612-402-0180	01-010-P101	<3.2	<3.0	<2.4	<3.0	<1.1	2.1±1.1	0.09±0.05
8612-402-0200	01-001-P001	<3.3	<3.2	<2.6	<2.9	<1.4	1.7±1.1	<0.06
8612-402-0210	01-007-P001	<2.8	<3.0	<4.2	<3.4	1.4±1.2	1.4±1.1	0.13±0.10
8612-402-0220	01-011-P001	<4.0	<4.9	<5.0	<3.9	1.3±1.2	2.2±1.1	0.12±0.06
8612-396-0030	01-004-P001	<3.6	<4.3	<4.8	<4.3	<1.2	2.0±1.1	0.07±0.04

All gamma emitters are below the limit of detection. Less than (<) values are based on 3 sigma counting error for background sample. The error given is the probable counting error at the 95% confidence level.

Approved by *C. G. Huebner* Date 1/19/87  
 C. G. Huebner  
 General Manager



DBCP Results

Water

Round 1

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-396      Client: LUKE AFB      Page: 1

Sample Information      Cust ID: 01004P001      BLANK  
RFW#: 0030      BLANK  
Matrix: Water      Water  
D.F.: 1  
Units: ug/l

Dibromochloropropane..... 20 U      20 U      20 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-402

Client: LUKE AFB

Page: 1

Sample Information	Cust ID:	RFW#:	Matrix:	D.F.:	Units:	01-010P001	01010P101	01001P001	01007P001	01011P001
	0160	0170	Water	1	ug/l	20 U	20 U	20 U	20 U	20 U
	Water	Water	Water	1	ug/l	fl	fl	fl	fl	fl
	1	1	1	1	ug/l	20 U	20 U	20 U	20 U	20 U
	ug/l	ug/l	ug/l	ug/l	ug/l	fl	fl	fl	fl	fl
Dibromochloropropane.....						20 U	20 U	20 U	20 U	20 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RfW Batch Number: 8612-402      Client: LUKE AFB      Page: 2

Sample Information  
Cust ID: BLANK  
RFW#: BLANK  
Matrix: Water  
D.F.: 1  
Units: ug/l

Dibromochloropropane..... 20 U

U=Analyzed, not detected. B=Present in blank. NRP=Not reported.  
NR=Not requested.



**Metals Results**

**Water**

**Round 1**

**1036B**

CLIENT: LUFE 387, 396  
 REPORT SUMMARY FOR AQUEOUS SAMPLES  
 RECEIVED DECEMBER 18, 1986  
 UNITS: UG/L

REF/MSN	DESCRIPTION	AG	AS	BE	CO	CR	CU	NI	PB	SU	SE	TL	ZN	%S
8612-387-0010	06-109-M001, MW109	<10	<10	<5	<5	10	<25	<40	7.9	<60	<5.0	<10	170	0.2
8612-387-0020	06-110-M001, MW110	<10	<10	<5	<5	24	25	<40	28	<60	<5.0	<10	590	0.2
8612-387-0030	06-109-M201, F0-1	<10	<10	<5	<5	<10	62	<40	68	<60	<5.0	<10	33	0.2
8612-387-0040	06-111-M001, MW-111	<10	<10	<5	<5	16	<25	<40	16	<60	<5.0	<10	500	0.2
8612-387-0050	06-111-M101, MW110	<10	<10	<5	<5	16	<25	47	12	<60	<5.0	<10	470	0.2
8612-396-0010	02-001-E001, EFFLUENT 1-1	<10	<10	<5	<5	22	<25	<40	13	<60	<5.0	<10	52	0.35
8612-396-0020	02-001-E002, EFFLUENT 1-2	<10	13.3	<5	<5	25	<25	<40	9.1	<60	<5.0	<10	47	0.2
8612-396-0030	01-004-P001, PH-4	<10	10.8	<5	<5	24	<25	<40	5.9	<60	<5.0	<10	29	0.2
8612-396-0040	02-101-M001, MW101	<10	<10	<5	<5	14	<25	<40	8.2	<60	<5.0	<10	170	0.2
8612-396-0060	02-001-E003, EFFLUENT 1-3	<10	11.8	<5	<5	32	<25	<40	6.6	<60	<5.0	<10	45	0.2
	BLANK	<10	<10	<5	<5	<10	<25	<40	12	<60	<5.0	<10	29	0.2
	LCS	84%	80%	98%	100%	102%	103%	104%	100%	94%	90%	95%	100%	100%

H-103

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 WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
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 MANAGER  
 WESTON ANALYTICS

CLIENT: LUKE 397  
 REPORT SUMMARY FOR SOLID SAMPLES  
 RECEIVED DECEMBER 19, 1986  
 UNITS: MG/KG

REFSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	NI	PB	SK	SE	TL	ZN	HG
8612-397-0010	02-001-D001, SIP-1	<2.0	3.4	0.6	4.7	36	26	34	<20	<6.0	<0.4	<1.0	51	<0.1
8612-397-0020	02-002-D001, SIP-2	<2.0	5.4	<0.4	1.2	6.3	11	11	<20	<6.0	<0.4	<1.0	29	<0.1
8612-397-0030	02-003-D001, SIP-3	<2.0	4.8	0.8	6.2	41	53	42	22	<6.0	<0.4	<1.0	95	0.7
8612-397-0040	02-004-D001, SIP-4	<2.0	4.4	0.7	5.5	35	30	33	<20	<6.0	<0.4	<1.0	72	0.2
8612-397-0050	02-005-D001, SIP-5	<2.0	1.8	<0.4	1.2	6.6	13	13	<20	<6.0	<0.4	<1.0	21	0.1
8612-397-0060	02-006-D001, SIP-6	<2.0	4.4	<0.4	2.0	13	19	18	46	<6.0	<0.4	<1.0	34	<0.1
8612-397-0070	02-007-D001, SIP-7	<2.0	4.3	<0.4	2.0	17	21	22	<20	<6.0	<0.4	<1.0	38	<0.1
8612-397-0080	02-008-D001, SIP-8	<2.0	3.5	0.4	2.8	25	31	25	<20	<6.0	<0.4	<1.0	58	<0.1
8612-397-0090	02-009-D001, SIP-9	<2.0	3.6	<0.4	2.2	17	21	18	<20	<6.0	<0.4	<1.0	43	<0.1
8612-397-0100	02-010-D001, SIP-10	3.7	2.9	0.9	6.4	50	47	36	57	<6.0	<0.4	<1.0	101	0.2
8612-397-0110	02-001-D101, SIP-101	<2.0	2.8	0.5	4.0	31	24	30	<20	<6.0	<0.4	<1.0	48	0.1
8612-397-0110 R	REPLICATE	2.0	2.9	0.5	3.9	33	24	32	<20	<6.0	<0.4	<1.0	49	0.1
8612-397-0110 S	SPLIT	75%	80%	91%	72%	78%	90%	89%	222%	16%	40%	97%	76%	90%
87A002-MB1	METHOD BLANK	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<4.0	<20	<6.0	<0.4	<1.0	<2.0	0.2
87A002-MB1R	LCS	98%	107%	96%	96%	102%	96%	99%	110%	62%	87%	102%	93%	106%

H-104

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0.22.2018

LUP  
 REPORT SUMMARY FOR AQUEOUS SAMPLES  
 RECEIVED DECEMBER 24, 1986  
 UNITS: UG/L

RFWSN	DESCRIPTION	AS	AS	BE	CD	CR	CU	NI	PB	SB	SE	FL	ZN	HG
8612-402-0010	02-002-E002, EFFLUENT 2-2	<10	13	<5	<5	13	<25	<40	7.2	<60	<5.0	<10	56	<0.2
8612-402-0020	02-002-E003, EFFLUENT 2-3	<10	12	<5	<5	13	<25	<40	5.4	<60	<5.0	<10	52	0.2
8612-402-0040	05-108-M001, MW-108	<10	13	<5	<5	<10	<25	<40	14	<60	<5.0	<10	620	<0.2
8612-402-0050	04-104-M001, MW-104	<10	<10	<5	<5	16	<25	<40	11	<60	<5.0	<10	1480	<0.2
8612-402-0060	04-105-M001, MW-105	<10	13	<5	11	46	26	<40	44	<60	<5.0	<10	46800	<0.2
8612-402-0070	04-106-M001, MW-106	<10	<10	<5	<5	47	<25	<40	11	<60	<5.0	<10	1240	<0.2
8612-402-0120	02-002-E001, EFFLUENT 2-1	<10	12	<5	<5	<10	<25	<40	8.6	<60	<5.0	<10	79	<0.2
8612-402-0130	02-003-E002, EFFLUENT 3-2	<10	<10	<5	<5	<10	<25	<40	5.0	<60	<5.0	<10	30	<0.2
8612-402-0130 R	REPLICATE	<10	<10	<5	<5	<10	<25	<40	5.0	<60	<5.0	<10	23	<0.2
8612-402-0130 S	SPIKE	482	962	942	882	962	982	982	1032	762	902	772	962	962
8612-402-0140	02-003-E003, EFFLUENT 3-3	<10	<10	<5	<5	<10	<25	<40	5.0	<60	<5.0	<10	28	0.2
8612-402-0160	01-009-P001, PW-9	<10	18	<5	<5	15	<25	<40	5.0	<60	<5.0	<10	20	0.2
8612-402-0170	01-010-P001, PW-10	<10	19	<5	<5	11	<25	<40	5.0	<60	<5.0	<10	20	<0.2
8612-402-0180	01-010-F101, FW-101	<10	19	<5	<5	13	<25	<40	5.0	<60	<5.0	<10	20	<0.2
8612-402-0200	01-001-P001, PW-1	<10	<10	<5	<5	10	200	<40	8.2	<60	<5.0	<10	55	<0.2
8612-402-0210	01-007-P001, PW-7	<10	16	<5	<5	19	<25	<40	5.0	<60	<5.0	<10	20	<0.2
8612-402-0220	01-011-P001, PW-11	<10	<10	<5	<5	<10	<25	<40	5.0	<60	<5.0	<10	21	<0.2
	BLANK	<10	<10	<5	<5	<10	<25	<40	5.0	<60	<5.0	<10	29	<0.2
	LCS #1	522	962	942	922	982	982	982	1002	952	802	1072	1012	1022
	LCS #2	482	992	942	922	962	952	972	1082	942	802	1092	992	1002

EH-105

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WESTON ANALYTICS  
 REPORT SUMMARY FOR AQUEOUS SAMPLES  
 RECEIVED DECEMBER 24, 1986  
 UNITS: UG/L

RFMSH	DESCRIPTION	AB	AS	BE	CD	DR	CU	NI	FB	SB	SE	TL	ZH	H6
8612-417-0010	05-107-M001, MW-107	<10	<10	<5	<5	16	<25	<40	<5.0	<60	<5.0	<10	1060	<0.2
8612-417-0010 R	REPLICATE	<10	<10	<5	<5	17	<25	<40	<5.0	<60	<5.0	<10	960	<0.2
8612-417-0010 S	SPIKE	52%	103%	94%	92%	97%	96%	103%	95%	97%	80%	80%	96%	101%
8612-417-0020	05-107-M101, MW-1071	<10	42	<5	<5	14	<25	40	6.2	<60	<5.0	<10	1050	<0.2
8612-433-0010	02-003-E001, SIP-EFFLUENT 3-1	<10	<10	<5	<5	12	<25	<40	<5.0	<60	<5.0	<10	<20	<0.2
	BLANK	<10	<10	<5	<5	<10	<25	<40	<5.0	<60	<5.0	<10	39	<0.2
	LCS #1	72%	96%	98%	100%	102%	103%	131%	106%	95%	90%	107%	103%	104%
	LCS #2	73%	99%	98%	104%	103%	101%	104%	130%	94%	90%	126%	105%	103%

H-106

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CLIENT: LUKE 484  
REPORT SUMMARY FOR AQUEOUS SAMPLES  
RECEIVED JANUARY 8, 1987  
UNITS: UG/L

RFSW	DESCRIPTION	AB	AS	BE	CD	CR	CU	NI	FE	SR	SE	TI	ZN	MS
8701-484-0010	03-001-M001, SW @ OIL/H2O CANAL	<10	3.1	<2	<5	10	<20	<20	7.5	<30	3	<5	65	.34
8701-484-0010 D	DUPLICATE	<10	2.8	<2	<5	14	NA	<20	7.8	<30	3	<5	NA	NA
8701-484-0010 MS	MATRIX SPIKE	94%	92%	98%	92%	98%	NA	100%	68%	81%	130%	64%	NA	NA
8701-484-0020	03-102-M001, MW 102	<10	11	<2	8	83	73	55	30	<30	3	5	158	.21
8701-484-0030	03-103-M001, MW 103	<10	23	<2	10	88	75	56	42	<30	<2	<5	241	.21
8701-484-0040	03-103-M101, MW 1031	<10	23	<2	9	96	85	64	44	30	<2	<5	297	<0.2
8701-484-0050	03-103-M201, FIELD BLANK	<10	<2.0	<2	<5	<10	<20	<20	<5.0	<30	<2	<5	70	<0.2
	METHOD BLANK	<10	<2.0	<2	<5	<10	<20	<20	<5.0	<30	<2	5	13	<0.2
	LCS	98%	112%	111%	94%	108%	106%	109%	93%	92%	107%	100%	100%	95%
8701-484-0050 D	DUPLICATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8701-484-0050 MS	MATRIX SPIKE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8701-484-0050 D	DUPLICATE	NA	NA	NP	NA	NA	77	NA	NA	NA	NA	NA	NA	NA
8701-484-0020 MS	MATRIX SPIKE	NA	NA	NA	NA	NA	100%	NA	NA	NA	NA	NA	94%	NA

H-107

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VOC Results

Water

Round 2

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Page: 1

RFW Batch Number: 8701-554

Client: LUKE AFB

Sample Information	Cust ID: 01001P002		01011P002		LAB DUP		M.S.		TRIP BLK		05107M002	
	RFW#:	0010	Water	0020	Water	0020	Water	0020 MS	Water	0030	Water	0040
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	81 §	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	87 §	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	52 §	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	110 §	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8701-554 Client: LUKE AFB Page: 1

Cust ID: 01001P002 01011P002 LAB DUP M.S. TRIP BLK 05107M002  
 RFW#: 0010 0020 0020 0020 MS 0030 0040

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-554 Client: LUKE AFB Page: 2

Sample Information	Cust ID: 03001W002 04104M002 04104M102		B.S.		B.S.	
	RFW#: 0050	0060	0070	Water	Water	Water
Matrix:	Water	Water	Water	ug/l	ug/l	ug/l
D.F.:	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	NRP	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	NRP	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	NRP	4 U	4 U
Acetone.....	10 U	10 U	10 U	NRP	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	97 %	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	NRP	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	90 %	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	87 %	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	81 %	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	NRP	1 U	1 U
Bromoform.....	2 U	2 U	2 U	NRP	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	NRP	10 U	10 U

Client: LUKE AFB

RFW Batch Number: 8701-554

	Cust ID: 03001W002	04104M002	04104M102	B.S.	BLANK
RFW#:	0050	0060	0070	B.S.	BLANK
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	87 *	0.5 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	NRP	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	NRP	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	NRP	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	NRP	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	NRP	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
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WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Page: 3

RFW Batch Number: 8701-554      Client: LUKE AFB

Sample Information  
Cust ID: B.S.  
RFW#: B.S.  
Matrix: Water  
D.F.: 1  
Units: ug/l

Compound Name	Concentration	Units
Chloromethane		NRP
Bromomethane		NRP
Vinyl Chloride		NRP
Chloroethane		NRP
Methylene Chloride		NRP
Acetone		NA
Carbon Disulfide		NRP
1,1-Dichloroethene		NRP
1,1-Dichloroethane		NRP
Trans-1,2-Dichloroethene		NRP
Chloroform	102	%
1,2-Dichloroethane		NRP
2-Butanone		NRP
1,1,1-Trichloroethane		NRP
Carbon Tetrachloride		NRP
Bromodichloromethane	88	%
1,2-Dichloropropane		NRP
Trans-1,3-Dichloropropene		NRP
Trichloroethene	87	%
Dibromochloromethane	72	%
1,1,2-Trichloroethane		NRP
Benzene		NRP
cis-1,3-Dichloropropene		NRP
2-Chloroethylvinylether		NRP
Bromoform		NRP
4-Methyl-2-pentanone		NRP

RFW Batch Number: 8701-554

Client: LUKE AFB

Page: 3

Cust ID: B.S.

RFW#: B.S.

Tetrachloroethene.....	NRP	fl	fl	fl	fl	fl
1,1,2,2-Tetrachloroethane.....	NRP					
Toluene.....	94 %					
Chlorobenzene.....	NRP					
Ethylbenzene.....	NRP					
Styrene.....	NA					
Total Xylenes.....	97 %					
1,2-Dichlorobenzene.....	NRP					
1,3-Dichlorobenzene.....	NRP					
1,4-Dichlorobenzene.....	NRP					
Trichlorofluoromethane.....	NRP					
Dichlorodifluoromethane.....	NRP					

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Client: LUKE AFB

RFW Batch Number: 8701-561

Page: 1

Sample Information	03102M002		03103M002		06111M002		LAB DUP		M.S.		TRIP BLK	
	RFW#:	0010	0020	0030	0030	0030	0030	0030	MS	MS	0040	0040
Matrix:	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U



RFW Batch Number: 8701-561 Client: LUKE AFB

Cust ID: 03102M002 03103M002 06111M002 LAB DUP M.S. TRIP BLK  
RFW#: 0010 0020 0030 0030 0030 MS 0040

	0010	0020	0030	0030	0030	0030	MS	0040
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-561

Client: LUKE AFB

Page: 2

Sample Information	Cust ID: 04105M002		04106M002		05108M002		BLANK		B.S.	
	RFW#:	0050	0060	0070	Water	Water	Water	Water	Water	Water
Matrix:	1	1	1	1	1	1	1	1	1	1
D.F.:	1	1	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	NRP
Acetone.....	40	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	101
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	90
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP

RFW Batch Number: 8701-561

Client: LUKE AFB

Cust ID: 04105M002 04106M002 05108M002  
RFW#: 0050 0060 0070

B.S.  
B.S.

BLANK  
BLANK

	04105M002	04106M002	05108M002				
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	91 %
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	91 %
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON Analytics  
LUKE AFB  
RFWBN: 8701-561, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15                      Analysis Date: 02-03-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN</u> <u>RESULTS</u>	<u>2nd COLUMN</u> <u>RESULTS</u>
8702-561-0030	Acetone	42      ug/l	YES
8702-561-0040	Toluene	2.3     ug/l	YES
8702-561-0050	Acetone	40      ug/l	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-578      Client: LUKE AFB      Page: 1

Sample Information      Cust ID: 02101M202      04105M202      B.S.      B.S.      B.S.  
RFW#: 0010      0020      BLANK      BLANK      BLANK  
Matrix: Water      Water      Water      Water      Water  
D.F.: 1      1      1      1      1  
Units: ug/l      ug/l      ug/l      ug/l      ug/l

	fl	ug/l	fl	ug/l	fl	ug/l	fl	ug/l	fl	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8701-578

Client: LUKE AFB

Page: 1

Cust ID: 02101M202 04105M202  
RFW#: 0010 0020

	fl	fl	fl	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	95 %
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	83 %
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.



**BNA Results**

**Water**

**Round 2**

**1036B**

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-554-

Client: LUKE AFB

Page: 1

Cust ID: 01001P002 01011P002 05107M002 03001W002 04104M002 04104M002  
 RFW#: 0010 0020 0040 0050 0060 0060  
 Matrix: Water Water Water Water Water Water  
 MDL=10xD.F., except (2)=50x, (3)=20x  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate	65 %	54 %	43 %	40 %	52 %	57 %
2-Fluorophenol:	65 %	54 %	43 %	40 %	52 %	57 %
Phenol-d5:	55 %	47 %	34 %	28 %	38 %	48 %
2,4,6-Br3-Phenol:	105 %	90 %	85 %	92 %	93 %	94 %
Nitrobenzene-d5:	78 %	68 %	60 %	60 %	56 %	68 %
2-Fluorobiphenyl:	74 %	64 %	62 %	62 %	52 %	64 %
p-Terphenyl-d14:	68 %	60 %	56 %	56 %	48 %	58 %
Phenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U



LUKE AFB

RFW Batch Number: 8701-554-

Client: LUKE AFB

Cust ID: 01001P002 01011P002 05107M002 03001W002 04104M002 04104M002 04104M002  
RFW#: 0010 0020 0040 0050 0060 0060 DUP

	0010	0020	0040	0050	0060	0060	DUP
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	18
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-554- Client: LUKE AFB

Cust ID: 04104M102 LAB BLANK LAB BLANK LAB BLANK BLANK SPK BLK SP DUP  
 RFW#: 0070 BLANK #2 BLANK SPK BLK SP DUP  
 Matrix: Water 1 1 1 1 1  
 D.F.: 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l

Surrogate	44 %	54 %	52 %	50 %	48 %
2-Fluorophenol:	44 %	54 %	52 %	50 %	48 %
Phenol-d5:	37 %	38 %	39 %	39 %	37 %
2,4,6-Br3-Phenol:	96 %	76 %	91 %	94 %	99 %
Nitrobenzene-d5:	58 %	66 %	66 %	42 %	56 %
2-Fluorobiphenyl:	62 %	58 %	58 %	46 %	58 %
p-Terphenyl-d14:	48 %	62 %	56 %	56 %	52 %
Phenol.....	10 U	10 U	10 U	29 %	28 %
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	66 %	63 %
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	34 %	120 %
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	52 %	68 %
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	34 %	46 %
Naphthalene.....	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U
Hexachlororbutadiene.....	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	68 %	69 %
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U

Cust ID: 04104M102      LAB BLANK #1      LAB BLANK #2      BLANK SPK      BLK SP      DUP  
 RFW#: 0070              fl              fl              fl              fl              fl

2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	54 %	64 %	64 %
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	42 %	55 %	55 %
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	64 %	54 %	54 %
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	91 %	120 %	120 %
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	NR	NR	NR
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	52 %	48 %	48 %
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-561- Client: LUKE AFB Page: 1

Sample Information  
MDL=10xD.F., except  
(2)=50x, (3)=20x

Cust ID: 03102M002 03103M002 06111M002 04105M002 04106M002 05108M002  
RFW#: 0010 0020 0030 0050 0060 0070  
Matrix: Water Water Water Water Water Water  
D.F.: 1 1 1 1 1 1  
Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate	2-Fluorophenol:	55 %	54 %	40 %	43 %	30 %	39 %
Recovery (%)	Phenol-d5:	41 %	37 %	35 %	34 %	30 %	38 %
	2,4,6-Br3-Phenol:	96 %	102 %	64 %	53 %	44 %	57 %
	Nitrobenzene-d5:	90 %	48 %	42 %	46 %	44 %	48 %
	2-Fluorobiphenyl:	78 %	52 %	58 %	66 %	60 %	68 %
	p-Terphenyl-d14:	60 %	50 %	64 %	46 %	50 %	62 %

Phenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8701-561-

Client: LUKE AFB

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Cust ID: 03102M002 03103M002 06111M002 04105M002 04106M002 05108M002  
RFW#: 0010 0020 0030 0050 0060 0070

	f1	f1	f1	f1	f1	f1
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-561- Client: LUKE AFB Page: 1

Sample Information	Cust ID:	LAB BLANK	LAB BLANK	LAB BLANK	BLANK SPK	BLANK SPK	BLANK SPK	DUP
MDL=10XD.F., except (2)=50X, (3)=20X	RFW#:	Water	Water	Water	Water	Water	Water	Water
	D.F.:	1.25	1.25	1.25	1.25	1.25	1.25	1.25
	Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Surrogate	2-Fluorophenol:	54 %	52 %	50 %	48 %			
Recovery (%)	Phenol-d5:	38 %	39 %	39 %	37 %			
	2,4,6-Br3-Phenol:	76 %	91 %	94 %	99 %			
	Nitrobenzene-d5:	66 %	66 %	42 %	56 %			
	2-Fluorobiphenyl:	58 %	58 %	46 %	58 %			
	p-Terphenyl-d14:	62 %	56 %	56 %	52 %			
	Phenol.....	13 U	13 U	29 %	28 %			
	bis(2-Chloroethyl) Ether.....	13 U	13 U	13 U	13 U			
	2-Chlorophenol.....	13 U	13 U	66 %	63 %			
	1,3-Dichlorobenzene.....	13 U	13 U	13 U	13 U			
	1,4-Dichlorobenzene.....	13 U	13 U	34 %	46 %			
	Benzyl Alcohol.....	13 U	13 U	13 U	13 U			
	1,2-Dichlorobenzene.....	13 U	13 U	13 U	13 U			
	2-Methylphenol.....	13 U	13 U	13 U	13 U			
	bis(2-Chloroisopropyl) Ether.....	13 U	13 U	13 U	13 U			
	4-Methylphenol.....	13 U	13 U	13 U	13 U			
	N-Nitroso-di-n-propylamine.....	13 U	13 U	52 %	68 %			
	Hexachloroethane.....	13 U	13 U	13 U	13 U			
	Nitrobenzene.....	13 U	13 U	13 U	13 U			
	Isophorone.....	13 U	13 U	13 U	13 U			
	2-Nitrophenol.....	13 U	13 U	13 U	13 U			
	2,4-Dimethylphenol.....	13 U	13 U	13 U	13 U			
	Benzoic Acid(2).....	63 U	63 U	63 U	63 U			
	bis(2-Chloroethoxy)Methane.....	13 U	13 U	13 U	13 U			
	2,4-Dichlorophenol.....	13 U	13 U	13 U	13 U			
	1,2,4-Trichlorobenzene.....	13 U	13 U	34 %	46 %			
	Naphthalene.....	13 U	13 U	13 U	13 U			
	4-Chloroaniline.....	13 U	13 U	13 U	13 U			
	Hexachlorobutadiene.....	13 U	13 U	13 U	13 U			
	4-Chloro-3-methylphenol.....	13 U	13 U	68 %	69 %			
	2-Methylnaphthalene.....	13 U	13 U	13 U	13 U			
	Hexachlorocyclopentadiene.....	13 U	13 U	13 U	13 U			

LUKE AFB

Client:

RFW Batch Number: 8701-561-

Cust ID: LAB BLANK LAB BLANK LAB BLANK SPK BLNK SP DUP  
RWF#: BLANK #1 BLANK #2 BLANK SPK BLNK SP DUP

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	13 U	13 U	13 U	13 U	13 U	13 U
2,4,5-Trichlorophenol(2).....	63 U	63 U	63 U	63 U	63 U	63 U
2-Chloronaphthalene.....	13 U	13 U	13 U	13 U	13 U	13 U
2-Nitroaniline(2).....	63 U	63 U	63 U	63 U	63 U	63 U
Dimethyl Phthalate.....	13 U	13 U	13 U	13 U	13 U	13 U
Acenaphthylene.....	13 U	13 U	13 U	13 U	13 U	13 U
3-Nitroaniline(2).....	63 U	63 U	63 U	63 U	63 U	63 U
Acenaphthene.....	13 U	13 U	13 U	54 %	64 %	64 %
2,4-Dinitrophenol(2).....	63 U	63 U	63 U	63 U	63 U	63 U
4-Nitrophenol(2).....	63 U	63 U	63 U	42 %	55 %	55 %
Dibenzofuran.....	13 U	13 U	13 U	13 U	13 U	13 U
2,4-Dinitrotoluene.....	13 U	13 U	13 U	46 %	54 %	54 %
2,6-Dinitrotoluene.....	13 U	13 U	13 U	13 U	13 U	13 U
Diethyl Phthalate.....	13 U	13 U	13 U	13 U	13 U	13 U
4-Chlorophenyl-phenylether.....	13 U	13 U	13 U	13 U	13 U	13 U
Fluorene.....	13 U	13 U	13 U	13 U	13 U	13 U
4-Nitroaniline(2).....	63 U	63 U	63 U	63 U	63 U	63 U
4,6-Dinitro-2-methylphenol(2).....	63 U	63 U	63 U	63 U	63 U	63 U
N-Nitrosodiphenylamine(1).....	13 U	13 U	13 U	13 U	13 U	13 U
4-Bromophenyl-phenylether.....	13 U	13 U	13 U	13 U	13 U	13 U
Hexachlorobenzene.....	13 U	13 U	13 U	13 U	13 U	13 U
Pentachlorophenol(2).....	63 U	63 U	63 U	91 %	120 %	120 %
Phenanthrene.....	13 U	13 U	13 U	13 U	13 U	13 U
Anthracene.....	13 U	13 U	13 U	13 U	13 U	13 U
di-n-Butyl Phthalate.....	13 U	13 U	13 U	13 U	13 U	13 U
Fluoranthene.....	13 U	13 U	13 U	NR	NR	NR
Pyrene.....	13 U	13 U	13 U	52 %	48 %	48 %
Butyl Benzyl Phthalate.....	13 U	13 U	13 U	13 U	13 U	13 U
3,3'-Dichlorobenzidine(3).....	25 U	25 U	25 U	25 U	25 U	25 U
Benzo(a)Anthracene.....	13 U	13 U	13 U	13 U	13 U	13 U
bis(2-Ethylhexyl)Phthalate.....	13 U	13 U	13 U	13 U	13 U	13 U
Chrysene.....	13 U	13 U	13 U	13 U	13 U	13 U
di-n-Octyl Phthalate.....	13 U	13 U	13 U	13 U	13 U	13 U
Benzo(b)Fluoranthene.....	13 U	13 U	13 U	13 U	13 U	13 U
Benzo(k)Fluoranthene.....	13 U	13 U	13 U	13 U	13 U	13 U
Benzo(a)Pyrene.....	13 U	13 U	13 U	13 U	13 U	13 U
Indeno(1,2,3-cd)Pyrene.....	13 U	13 U	13 U	13 U	13 U	13 U
Dibenz(a,h)Anthracene.....	13 U	13 U	13 U	13 U	13 U	13 U
Benzo(g,h,i)Perylene.....	13 U	13 U	13 U	13 U	13 U	13 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-569 Client: LUKE AFB Page: 1

Cust ID: 02101M002 02101M102 01004P002 01007P002 01010P002 06109M002  
 RFW#: 0010 0020 0030 0040 0050 0060  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate	2-Fluorophenol:	Phenol-d5:	2,4,6-Br3-Phenol:	Nitrobenzene-d5:	2-Fluorobiphenyl:	p-Terphenyl-d14:	Phenol	bis(2-Chloroethyl)Ether	2-Chlorophenol	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Benzyl Alcohol	1,2-Dichlorobenzene	2-Methylphenol	bis(2-Chloroisopropyl)Ether	4-Methylphenol	N-Nitroso-di-n-propylamine	Hexachloroethane	Nitrobenzene	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Benzoic Acid(2)	bis(2-Chloroethoxy)Methane	2,4-Dichlorophenol	1,2,4-Trichlorobenzene	Naphthalene	4-Chloroaniline	Hexachlororbutadiene	4-Chloro-3-methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene				
	55 %	12 %	46 %	60 %	46 %	60 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U			
Recovery (%)	54 %	32 %	31 %	46 %	31 %	46 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
	60 %	40 %	29 %	46 %	47 %	47 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
	78 %	54 %	45 %	58 %	51 %	51 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	78 %	70 %	74 %	60 %	69 %	61 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	92 %	110 %	80 %	66 %	110 %	75 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	



RFW Batch Number: 8701-569

Client: LUKE AFB

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Cust ID: 02101M002 02101M102 01004P002 01007P002 01010P002 06109M002  
RFW#: 0010 0020 0030 0040 0050 0060

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	5 J	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	33	10 U	15	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-569      Client: LUKE AFB      Page: 2

Cust ID: 06110M002    01009P002    02101M002    02101M002    02101M002    BLANK #1    B.S.  
 RFW#: 0070    0080    0010 DUP    0010 MS    0010 MS    BLANK    B.S.  
 Matrix: Water    Water    Water    Water    Water    Water    Water  
 MDL=10xD.F., except    1    1    1    1    1    1  
 (2)=50x, (3)=20x    ug/l    ug/l    ug/l    ug/l    ug/l    ug/l

Surrogate	45 %	58 %	34 %	81 %	54 %	50 %
2-Fluorophenol:	45 %	58 %	34 %	81 %	54 %	50 %
Phenol-d5:	32 %	39 %	26 %	57 %	38 %	39 %
2,4,6-Br3-Phenol:	45 %	48 %	35 %	97 %	76 %	94 %
Nitrobenzene-d5:	55 %	50 %	53 %	86 %	66 %	42 %
2-Fluorobiphenyl:	78 %	71 %	68 %	100 %	58 %	46 %
p-Terphenyl-d14:	110 %	100 %	73 %	130 %	62 %	56 %
Phenol.....	10 U	10 U	10 U	52 %	10 U	29 %
bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	100 %	10 U	66 %
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	82 %	10 U	34 %
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	84 %	10 U	52 %
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	82 %	10 U	34 %
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlororbutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	100 %	10 U	68 %
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8701-569

Client: LUKE AFB

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Cust ID: 06110M002	01009P002	02101M002	02101M002	02101M002	BLANK #1	B.S.
RFW#: 0070	0080	0010 DUP	0010 MS	BLANK	B.S.	

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	100 §	10 U	54 §
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	47 §	50 U	42 §
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	86 §	10 U	46 §
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	3 J
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	9 §	50 U	91 §
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	NR
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	140 §	10 U	52 §
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	3 J	6 J	23	19	2 J	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-569      Client: LUKE AFB

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Sample Information  
MDL=10xD.F., except  
(2)=50x, (3)=20x

Cust ID: B.S.D.      BLANK #2  
RFW#: B.S.D.      BLANK  
Matrix: Water  
D.F.: 1  
Units: ug/l

Surrogate	Recovery (%)	48 %	52 %
2-Fluorophenol:		48 %	52 %
Phenol-d5:		37 %	39 %
2,4,6-Br3-Phenol:		99 %	91 %
Nitrobenzene-d5:		56 %	66 %
2-Fluorobiphenyl:		58 %	58 %
p-Terphenyl-d14:		52 %	56 %
Phenol.....	28 %	10 U	10 U
bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U
2-Chlorophenol.....	63 %	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U
1,4-Dichlorobenzene.....	46 %	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether.....	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	68 %	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	46 %	10 U	10 U
Naphthalene.....	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	69 %	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U

Cust ID:	B.S.D.	BLANK #2
RFW#:	B.S.D.	BLANK
2,4,6-Trichlorophenol.....	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U
Acenaphthylene.....	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U
Acenaphthene.....	64 §	10 U
2,4-Dinitrophenol(2).....	50 U	50 U
4-Nitrophenol(2).....	55 §	50 U
Dibenzofuran.....	10 U	10 U
2,4-Dinitrotoluene.....	54 §	10 U
2,6-Dinitrotoluene.....	10 U	10 U
Diethyl Phthalate.....	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U
Fluorene.....	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U
N-Nitrosodiphenylamine(1).....	2 J	10 U
4-Bromophenyl-phenylether.....	10 U	10 U
Hexachlorobenzene.....	10 U	10 U
Pentachlorophenol(2).....	120 §	50 U
Phenanthrene.....	10 U	10 U
Anthracene.....	10 U	10 U
di-n-Butyl Phthalate.....	NR	10 U
Fluoranthene.....	10 U	10 U
Pyrene.....	48 §	10 U
Butyl Benzyl Phthalate.....	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	3 J	10 U
Chrysene.....	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8701-578      Client: LUKE AFB      Page: 1

Sample Information	Cust ID:	BLANK #1		B.S.		B.S.D.		BLANK #2		02101M202		04105M202	
		RFW#:	BLANK	Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l
MDL=10xD.F., except (2)=50X, (3)=20X													
Surrogate	2-Fluorophenol:		54 %	50 %	48 %	52 %	52 %	52 %	52 %	52 %	52 %	42 %	42 %
Recovery (%)	Phenol-d5:		38 %	39 %	37 %	39 %	39 %	39 %	39 %	39 %	39 %	24 %	24 %
	2,4,6-Br3-Phenol:		76 %	94 %	99 %	91 %	91 %	91 %	91 %	91 %	91 %	44 %	44 %
	Nitrobenzene-d5:		66 %	42 %	56 %	66 %	66 %	66 %	66 %	66 %	66 %	86 %	86 %
	2-Fluorobiphenyl:		58 %	46 %	58 %	58 %	58 %	58 %	58 %	58 %	58 %	110 %	110 %
	p-Terphenyl-d14:		62 %	56 %	52 %	56 %	56 %	56 %	56 %	56 %	56 %	120 %	120 %
	Phenol.....		10 U	29 %	28 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	bis(2-Chloroethyl) Ether.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Chlorophenol.....		10 U	66 %	63 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	1,3-Dichlorobenzene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	1,4-Dichlorobenzene.....		10 U	34 %	46 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Benzyl Alcohol.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	1,2-Dichlorobenzene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Methylphenol.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	bis(2-Chloroisopropyl) Ether.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4-Methylphenol.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	N-Nitroso-di-n-propylamine.....		10 U	52 %	68 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Hexachloroethane.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Nitrobenzene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Isophorone.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Nitrophenol.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2,4-Dimethylphenol.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Benzoic Acid(2).....		50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
	bis(2-Chloroethoxy)Methane.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2,4-Dichlorophenol.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	1,2,4-Trichlorobenzene.....		10 U	34 %	46 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Naphthalene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4-Chloroaniline.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Hexachlorobutadiene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4-Chloro-3-methylphenol.....		10 U	68 %	69 %	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2-Methylnaphthalene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Hexachlorocyclopentadiene.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8701-578

Client: LUKE AFB

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Cust ID: BLANK #1

0201M202

04105M202

RFW#: BLANK

0010

0020

	fl	B.S.	B.S.D.	BLANK #2	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	54 §	64 §	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	42 §	55 §	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	46 §	54 §	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	3 J	2 J	10 U	1 J	1 J	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	91 §	120 §	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	NR	NR	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	52 §	48 §	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	2 J	10 U	3 J	10 U	5 J	4 J	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U



**Pesticide/PCB Results**

**Water**

**Round 2**

**1036B**



WESTON ANALYTICS  
PESTICIDES/PCB's  
COMMERCIAL LIST

RFW Batch Number: 8701-554 Client: LUKE AFB Page: 1

Cust ID: 01001P002 01011P002 09107M002 03001W002 04104M002 04104M002  
 RFW#: 554-0010 554-0020 554-0040 554-0050 554-0060 554-0060 D  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 5 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: I § 119 § I § I § I § I §

Surrogate	Di-n-butylchloroendate	I	§	119	§	I	§	I	§	116	§	109	§
Alpha-BHC		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Beta-BHC		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Delta-BHC		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Gamma-BHC (Lindane)		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Heptachlor		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Aldrin		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Heptachlor Epoxide		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Endosulfan I		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Dieldrin		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
4,4'-DDE		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endrin		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endosulfan II		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
4,4'-DDD		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endrin Aldehyde		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endosulfan Sulfate		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
4,4'-DDT		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Methoxychlor		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Endrin Ketone		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chlordane		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toxaphene		1	U	1	U	1	U	1	U	1	U	1	U
Aroclor-1016		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1221		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1232		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1242		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1248		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1254		1	U	1	U	1	U	1	U	1	U	1	U
Aroclor-1260		1	U	1	U	1	U	1	U	1	U	1	U

I=Interference. §=Percent recovery. NS=Not spiked.  
 U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

Page: 2

Client: LUKE AFB

RFW Batch Number: 8701-554/61

Sample Information  
 Cust ID: 04104M002 04104M102 03102M002 03103M002 06111M002 04105M002  
 RFW#: 554-0060MS 554-0070 561-0010 561-0020 561-0030 561-0050  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: I ‡ I ‡ I ‡ I ‡ I ‡ I ‡  
 -----f|-----f|-----f|-----f|-----f|-----f|

Analyte:

Alpha-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane).....	93 ‡	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor.....	112 ‡	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin.....	94 ‡	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin.....	105 ‡	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin.....	89 ‡	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT.....	129 ‡	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene.....	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254.....	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260.....	1 U	1 U	1 U	1 U	1 U	1 U

I=Interference. ‡=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
PESTICIDES/PCB'S  
COMMERCIAL LIST

RFW Batch Number: 8701-561/69 Client: LUKE AFB Page: 3

Sample Information  
Cust ID: 04106M002 05108M002 02101M002 02101M002 02101M002 02101M002 02101M102  
RFW#: 561-0060 561-0070 569-0010 569-0010 D 569-0010MS 569-0020  
Matrix: Water Water Water Water Water Water Water  
D.F.: 1 1 1 1 1 1 1  
Units: ug/l ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: I ‡ 122 ‡ I ‡ I ‡ I ‡ I ‡ I ‡

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

I=Interference. ‡=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8701-569

Client: LUKE AFB

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Sample Information  
 Cust ID: 01004P002 01007P002 01010P002 06109M002 06110M002 01009P002  
 RFW#: 569-0030 569-0040 569-0050 569-0060 569-0070 569-0080  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: I ‡ I ‡ I ‡ I ‡ I ‡ I ‡

Analyte:	I	‡	I	‡	I	‡	I	‡	I	‡	I	‡
Alpha-BHC.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Beta-BHC.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Delta-BHC.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Gamma-BHC (Lindane).....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Heptachlor.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Aldrin.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Heptachlor Epoxide.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Endosulfan I.....	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Dieldrin.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
4,4'-DDE.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endrin.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endosulfan II.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
4,4'-DDD.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endrin Aldehyde.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Endosulfan Sulfate.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
4,4'-DDT.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Methoxychlor.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Endrin Ketone.....	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chlordane.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toxaphene.....	1	U	1	U	1	U	1	U	1	U	1	U
Aroclor-1016.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1221.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1232.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1242.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1248.....	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Aroclor-1254.....	1	U	1	U	1	U	1	U	1	U	1	U
Aroclor-1260.....	1	U	1	U	1	U	1	U	1	U	1	U

I=Interference. ‡=Percent recovery. NS=Not spiked.  
 U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8701-578

Client: LUKE AFB

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Cust ID: 02101M202 04105M202

RFW#: 578-0010 578-0020

Matrix: Water 1

D.F.: 1

Units: ug/l

B.S. B.S.D. BLANK B.S.D. BLANK

B.S. B.S.D. BLANK B.S.D. BLANK

Water 1 Water 1

1 1

ug/l ug/l

Surrogate: Di-n-butylchloroendate: 92 ‡ 110 ‡ 117 ‡ 114 ‡ 111 ‡ 95 ‡

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	0.05 U	93 ‡	93 ‡	0.05 U
Heptachlor	0.05 U	0.05 U	0.05 U	121 ‡	119 ‡	0.05 U
Aldrin	0.05 U	0.05 U	0.05 U	100 ‡	97 ‡	0.05 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Diieldrin	0.1 U	0.1 U	0.1 U	105 ‡	104 ‡	0.1 U
H,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.1 U	0.1 U	0.1 U	88 ‡	87 ‡	0.1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U	129 ‡	129 ‡	0.1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U

‡=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8701-578 Client: LUKE APB

Sample Information  
 Cust ID: B.S. B.S.D.  
 RFW#: B.S. B.S.D.  
 Matrix: Water  
 D.F.: 1  
 Units: ug/l

Surrogate: Di-n-butylchloroendate: 72 \$ fl 126 \$ fl \$ fl \$ fl \$ fl

Analyte:

Alpha-BHC	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U
Gamma-BHC (Lindane)	44 \$	90 \$
Heptachlor	62 \$	110 \$
Aldrin	45 \$	84 \$
Heptachlor Epoxide	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U
Dieldrin	53 \$	99 \$
4,4'-DDE	0.1 U	0.1 U
Endrin	45 \$	82 \$
Endosulfan II	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U
4,4'-DDT	65 \$	121 \$
Methoxychlor	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U
Toxaphene	1 U	1 U
Aroclor-1016	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U
Aroclor-1254	1 U	1 U
Aroclor-1260	1 U	1 U

\$=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.



Oil and Grease, TOC, Nitrate/Nitrite, and TKN Results

Water

Round 2

1036B

DATE OF REPORT: 02/18/87

CLIENT: LUKE  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 1-22-87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 1-21-87  
SAMPLE COLLECTED BY: CLIENT

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8701-561-0010	03-102-M002	1.10 MG/L	.70 mg/l
-0020	03-103-M002	3.10 MG/L	1.00 mg/l
-0030	06-111-M002	2.90 MG/L	<.2 mg/l
-0050	04-105-M002	1.80 MG/L	<.2 mg/l
-0060	04-106-M002	<.5 MG/L	<.2 mg/l
-0070	05-108-M002	.50 MG/L	<.2 mg/l
-007R	REPLICATE	.60 MG/L	
-007S	PRECISION	18.2 %	
	METHOD BLANK	<.5 MG/L	<.2 mg/l
	METHOD SPIKE	4.70 MG/L	2.96 mg/l
	SPIKE RECOVERY	90.0 %	96.7 %
	METHOD SPIKE		3.28 mg/l
	SPIKE RECOVERY		107 %

PREPARED BY Emily C. Carfoglio  
EMILY C. CARFOLIO  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY Earl M. Hansen  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS



DATE OF REPORT: 03/17/87

CLIENT: LUKE AFB (REVISED)  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 1/24/87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 1/22-23/87  
SAMPLE COLLECTED BY: . DEB JONES


RFWSN	DESCRIPTION	NITRATE	NITRITE	TOTAL ORGANIC CARBON
3701-578-0010	02-101-M202			<.5 MG/L
-0020	04-105-M202	<.1 MG/L		4.80 MG/L
	METHOD BLANK	<.1 MG/L		
	METHOD SPIKE	.990 MG/L		
	SPIKE RECOVERY	99.0 %		

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL KJELDAHL NITROGEN
3701-578-0010	02-101-M202	<.2 mg/l	
-0020	04-105-M202	<.2 mg/l	.140 MG/L
	METHOD BLANK	<.2 mg/l	.100 MG/L
	METHOD SPIKE	3.83 mg/l	3.85 MG/L
	SPIKE RECOVERY	90.1 %	93.8 %
	METHOD SPIKE	5.31 mg/l	3.96 MG/L
	SPIKE RECOVERY	125 %	96.5 %

REPAIRED BY

  
EMILY C. CARPIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY

  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 02/16/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 1-21-87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 1-20-87  
SAMPLE COLLECTED BY: DEB JONES

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8701-554-0010	01-001-P002	.923 MG/L-	<.2 mg/l.
-0020	01-011-P002	<.5 MG/L-	<.2 mg/l.
-0040	05-107-M002	.540 MG/L-	<.2 mg/l.
-0050	03-001-W002	8.50 MG/L-	1.00 mg/l.
-0060	04-104-M002	.923 MG/L-	1.00 mg/l
-006K	MATRIX SPIKE	5.91 MG/L	
-006K	SPIKE RECOVERY	99.7 %	
-006K	04-104-M002		3.63 mg/l
-006K	SPIKE RECOVERY		61.9 %
-006R	REPLICATE	.923 MG/L	<.2 mg/l
-006S	PRECISION	11.0 %	NC
-0070	04-104-M102	.923 MG/L-	<.2 mg/l
	METHOD BLANK	<.5 MG/L	<.2 mg/l
	METHOD BLANK	<.5 MG/L	
	METHOD SPIKE	4.57 MG/L	2.96 mg/l
	SPIKE RECOVERY	88.3 %	96.7 %
	METHOD SPIKE		3.28 mg/l
	SPIKE RECOVERY		107 %

PREPARED BY

*Emily C. Carfioli*  
EMILY C. CARFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY

*Earl M. Hansen*  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 02/18/87

CLIENT: LUKE  
 DATA SUMMARY REPORT FOR  
 SAMPLES RECEIVED: 1-23-87  
 W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 1-22-87  
 SAMPLE COLLECTED BY: CLIENT

RFWSN	DESCRIPTION	NITRATE	NITRITE	TOTAL ORGANIC CARBON
8701-569-0010	02-101-M002	7.40 MG/L		.70 MG/L
-001K	MATRIX SPIKE	12 MG/L		
-001K	SPIKE RECOVERY	92.0 %		
-001K	02-101-M002			5.20 MG/L*
-001K	SPIKE RECOVERY			92.0 %
-001R	REPLICATE	7.60 MG/L		.60 MG/L
-001S	PRECISION	2.67 %		15.4 %
-0020	02-101-M102	6 MG/L		.70 MG/L
-0030	01-004-P002			.80 MG/L
-0040	01-007-P002			.70 MG/L
-0050	01-010-P002			<.5 MG/L
-0060	06-109-M002			.50 MG/L
-0070	06-110-M002			.80 MG/L
-0080	01-009-P002			.60 MG/L
	METHOD BLANK	<.1 MG/L		<.5 MG/L
	METHOD SPIKE	.990 MG/L		4.70 MG/L
	SPIKE RECOVERY	99.0 %		90.0 %

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL KJELDAHL NITROGEN
8701-569-0010	02-101-M002	<.2 mg/l	.100 MG/L
-001K	02-101-M002	3.00 mg/l	
-001K	SPIKE RECOVERY	98.0 %	
-001K	MATRIX SPIKE		3.26 MG/L
-001K	SPIKE RECOVERY		79.0 %
-001L	MATRIX SPIKE		3.77 MG/L
-001L	SPIKE RECOVERY		91.8 %
-001R	REPLICATE	<.2 mg/l	
-001S	PRECISION	NC	
-0020	02-101-M102	<.2 mg/l	<0.10 MG/L
-0030	01-004-P002	<.2 mg/l	
-0040	01-007-P002	<.2 mg/l	
-0050	01-010-P002	<.2 mg/l	
-0060	06-109-M002	<.2 mg/l	
-0070	06-110-M002	<.2 mg/l	
-0080	01-009-P002	<.2 mg/l	
	METHOD BLANK	<.2 mg/l	.100 MG/L
	METHOD SPIKE	2.96 mg/l	3.85 MG/L
	SPIKE RECOVERY	96.7 %	93.8 %
	METHOD SPIKE	3.28 mg/l	3.96 MG/L
	SPIKE RECOVERY	107 %	96.5 %

PREPARED BY

*Emily C. Carfali*  
 EMILY C. CARFALI  
 DATA MANAGER  
 WESTON ANALYTICS

APPROVED BY

*Earl H. Hansen*  
 EARL H. HANSEN, PH.D.  
 MANAGER  
 WESTON ANALYTICS



**Radiological Results**

**Water**

**Round 2**

**1036B**

Table 1. Results of gamma spectroscopy and gross alpha, gross beta and radium-226 analyses on six (6) water samples.

Sample Description	Site I.D.	Concentration (pCi/l)						Ra-226
		Mn-54	Co-60	Cs-134	Cs-137	Gross alpha	Gross beta	
8701-554-0010	01-001-P002	<4.0	<4.1	<4.8	<4.0	3.8±2.4	<1.4	0.14±0.05
8701-554-0020	01-011-P002	<3.1	<3.4	<3.9	<3.4	<1.0	2.9±1.2	<0.06
8701-569-0030	01-004-P002	<5.3	<5.9	<5.0	<5.5	<1.0	<1.3	0.19±0.06
8701-569-0040	01-007-P002	<4.5	<4.8	<4.0	<4.6	<1.1	6.4±1.4	0.08±0.04
8701-569-0050	01-010-P002	<3.4	<4.1	<4.6	<3.7	2.3±1.3	1.7±1.1	<0.05
8701-569-0080	01-009-P002	<2.6	<2.6	<3.6	<2.9	<1.0	1.7±1.1	<0.04

All gamma emitters are below the limit of detection. Less than (<) values are based on 3 sigma counting error for background sample. The error given is the probable counting error at the 95% confidence level.

Approved by *L. G. Huebner* Date 2/18/87  
 L. G. Huebner  
 General Manager



**DBCP Results**

**Water**

**Round 2**

**1036B**

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RfW Batch Number: 8701-554- Client: LUKE AFB Page: 1

Sample Information  
Cust ID: 01001P002 01011P002 BLANK  
RfW#: 0010 0020 BLANK  
Matrix: Water Water  
D.F.: 1 1  
Units: ug/l ug/l

Dibromochloropropane..... 20 U 20 U 20 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.



**Metals Results**

**Water**

**Round 2**

**1036B**



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0010	01-001-P002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	4.7	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	7.0	UG/L	5.0
		CHROMIUM, TOTAL	22	UG/L	10
		COPPER, TOTAL	25	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.0	u UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	9.0	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	55	UG/L	10
		-0020	01-011-P002	SILVER, TOTAL	10
ARSENIC, TOTAL	5.3			UG/L	2.0
BERYLLIUM, TOTAL	2.0			u UG/L	2.0
CADMIUM, TOTAL	5.0			u UG/L	5.0
CHROMIUM, TOTAL	10			u UG/L	10
COPPER, TOTAL	20			u UG/L	20
MERCURY, TOTAL	0.2			u UG/L	0.2
NICKEL, TOTAL	20			u UG/L	20
LEAD, TOTAL	5.0			u UG/L	5.0
ANTIMONY, TOTAL	30			u UG/L	30
SELENIUM, TOTAL	2.0			UG/L	2.0
THALLIUM, TOTAL	5.0			u UG/L	5.0
ZINC, TOTAL	17			UG/L	10

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0040	05-107-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.5	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.5	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	5.0	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	1470	UG/L	10
-0050	03-001-W002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.9	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	22	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	85	UG/L	10

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0060	04-104-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.6	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	8.2	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	2930	UG/L	100
-0070	01-104-M102	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	3.0	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	7.5	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	2760	UG/L	200

WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
-0060	04-104-M002	SILVER, TOTAL	40	50	UG/L	96
		ARSENIC, TOTAL	42	40	UG/L	98
		BERYLLIUM, TOTAL	37	50	UG/L	96
		CADMIUM, TOTAL	51	50	UG/L	96
		CHROMIUM, TOTAL	180	200	UG/L	86
		COPPER, TOTAL	234	250	UG/L	100
		MERCURY, TOTAL	5.0	5.0	UG/L	98
		NICKEL, TOTAL	480	500	UG/L	96
		LEAD, TOTAL	22	20	UG/L	69
		ANTIMONY, TOTAL	89	100	UG/L	89
		SELENIUM, TOTAL	12	10	UG/L	100
		THALLIUM, TOTAL	1.2	50	UG/L	2.0
		ZINC, TOTAL	3600	500	UG/L	134
-0130	02-005-B030	SILVER, TOTAL	4.8	4.9	MG/KG	98
		ARSENIC, TOTAL	12	3.9	MG/KG	94
		BERYLLIUM, TOTAL	4.8	4.9	MG/KG	92
		CADMIUM, TOTAL	10	4.9	MG/KG	102
		CHROMIUM, TOTAL	50	20	MG/KG	116
		COPPER, TOTAL	53	25	MG/KG	82
		NICKEL, TOTAL	67	49	MG/KG	89
		LEAD, TOTAL	78	49	MG/KG	95
		ANTIMONY, TOTAL	1.5	9.9	MG/KG	15
		SELENIUM, TOTAL	0.59	0.98	MG/KG	60
		THALLIUM, TOTAL	5.0	4.9	MG/KG	94
		ZINC, TOTAL	85	49	MG/KG	70

## WESTON ANALYTICS

## INORGANICS PRECISION REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
=====	=====	=====	=====	=====	=====
-0060	04-104-M002	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	2.6	2.7	3.8
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	5.0 u	NC
		CHROMIUM, TOTAL	10 u	10 u	NC
		COPPER, TOTAL	20 u	20 u	NC
		MERCURY, TOT	0.2 u	0.2 u	NC
		NICKEL, TOTAL	20 u	20 u	NC
		LEAD, TOTAL	8.2	6.2	28
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.0	2.0	0.0
		THALLIUM, TOTAL	5.0 u	5.0 u	NC
		ZINC, TOTAL	2930	2830	3.5
		-0130	02-005-B030	SILVER, TOTAL	1.9 u
ARSENIC, TOTAL	7.8			13	52
BERYLLIUM, TOTAL	0.38u			0.47	NC
CADMIUM, TOTAL	5.2			4.3	17
CHROMIUM, TOTAL	27			29	4.9
COPPER, TOTAL	33			30	10
NICKEL, TOTAL	24			24	2.8
LEAD, TOTAL	31			34	8.8
ANTIMONY, TOTAL	5.7 u			5.7 u	NC
SELENIUM, TOTAL	0.38u			0.38u	NC
THALLIUM, TOTAL	0.95u			0.95u	NC
ZINC, TOTAL	50			44	13

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
BLANK1	LCS	SILVER, TOTAL	34	50	UG/L	100
		BERYLLIUM, TOTAL	34	50	UG/L	90
		CADMIUM, TOTAL	52	50	UG/L	102
		CHROMIUM, TOTAL	191	200	UG/L	96
		COPPER, TOTAL	239	250	UG/L	98
		NICKEL, TOTAL	489	500	UG/L	99
		ANTIMONY, TOTAL	77	100	UG/L	77
		ZINC, TOTAL	489	500	UG/L	95
BLANK1	LCS	ARSENIC, TOTAL	42	40	UG/L	104
		LEAD, TOTAL	24	20	UG/L	106
		SELENIUM, TOTAL	11	10	UG/L	110
		THALLIUM, TOTAL	48	50	UG/L	96

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
BLANK1	LCS	SILVER, TOTAL	5.2	5.0	MG/KG	104
		BERYLLIUM, TOTAL	5.1	5.0	MG/KG	104
		CADMIUM, TOTAL	5.1	5.0	MG/KG	104
		CHROMIUM, TOTAL	20	20	MG/KG	101
		COPPER, TOTAL	26	25	MG/KG	104
		NICKEL, TOTAL	52	50	MG/KG	104
		LEAD, TOTAL	49	50	MG/KG	100
		ANTIMONY, TOTAL	8.3	10	MG/KG	83
		ZINC, TOTAL	51	50	MG/KG	102
BLANK1R	LCS	SILVER, TOTAL	4.9	5.0	MG/KG	98
		BERYLLIUM, TOTAL	5.0	5.0	MG/KG	102
		CADMIUM, TOTAL	4.9	5.0	MG/KG	100
		CHROMIUM, TOTAL	17	20	MG/KG	86
		COPPER, TOTAL	25	25	MG/KG	101
		NICKEL, TOTAL	50	50	MG/KG	100
		LEAD, TOTAL	49	50	MG/KG	100
		ANTIMONY, TOTAL	8.0	10	MG/KG	80
		ZINC, TOTAL	50	50	MG/KG	99

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1T	LCS	SILVER, TOTAL	5.5	5.0	MG/KG	110
		BERYLLIUM, TOTAL	5.1	5.0	MG/KG	104
		CADMIUM, TOTAL	5.2	5.0	MG/KG	106
		CHROMIUM, TOTAL	20	20	MG/KG	101
		COPPER, TOTAL	26	25	MG/KG	103
		NICKEL, TOTAL	52	50	MG/KG	104
		LEAD, TOTAL	50	50	MG/KG	102
		ANTIMONY, TOTAL	8.8	10	MG/KG	88
		ZINC, TOTAL	51	50	MG/KG	101
BLANK1	LCS	ARSENIC, TOTAL	3.3	4.0	MG/KG	82
		SELENIUM, TOTAL	1.2	1.0	MG/KG	120
		THALLIUM, TOTAL	5.2	5.0	MG/KG	98



WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1R	LCS	ARSENIC, TOTAL	3.3	4.0	MG/KG	83
		SELENIUM, TOTAL	1.2	1.0	MG/KG	120
		THALLIUM, TOTAL	5.2	5.0	MG/KG	99
BLANK1T	LCS	ARSENIC, TOTAL	3.5	4.0	MG/KG	88
		SELENIUM, TOTAL	1.3	1.0	MG/KG	130
		THALLIUM, TOTAL	5.2	5.0	MG/KG	99

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
LCS1	HG1	MERCURY, LCS	4.2	4.0	UG/L	105
LCS2	HG1	MERCURY, LCS	3.9	4.0	UG/L	98

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
LCS3	HG1	MERCURY, LCS	3.6	4.0	UG/L	90
LCS4	HG1	MERCURY, LCS	3.7	4.0	UG/L	93

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0010	03-102-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	16	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	11	UG/L	5.0
		CHROMIUM, TOTAL	62	UG/L	10
		COPPER, TOTAL	81	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	35	UG/L	20
		LEAD, TOTAL	25	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	456	UG/L	10
		-0020	03-103-M002	SILVER, TOTAL	10
ARSENIC, TOTAL	20			UG/L	2.0
BERYLLIUM, TOTAL	2.0			u UG/L	2.0
CADMIUM, TOTAL	18			UG/L	5.0
CHROMIUM, TOTAL	54			UG/L	10
COPPER, TOTAL	148			UG/L	20
MERCURY, TOTAL	0.2			u UG/L	0.2
NICKEL, TOTAL	33			UG/L	20
LEAD, TOTAL	46			UG/L	5.0
ANTIMONY, TOTAL	30			u UG/L	30
SELENIUM, TOTAL	2.0			u UG/L	2.0
THALLIUM, TOTAL	5.0			u UG/L	5.0
ZINC, TOTAL	2940			UG/L	200

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0030	06-111-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.2	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	13	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	6.9	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	1380	UG/L	10
-0050	04-105-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	16	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	25	UG/L	5.0
		CHROMIUM, TOTAL	148	UG/L	10
		COPPER, TOTAL	203	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	92	UG/L	20
		LEAD, TOTAL	86	UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	34900	UG/L	200

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0060	04-106-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	3.3	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	26	UG/L	10
		COPPER, TOTAL	23	UG/L	20
		MERCURY, TOTAL	0.31	UG/L	0.2
		NICKEL, TOTAL	29	UG/L	20
		LEAD, TOTAL	11	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	796	UG/L	10
-0070	05-108-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.0	u UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	8.0	UG/L	5.0
		CHROMIUM, TOTAL	15	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	2.4	UG/L	0.2
		NICKEL, TOTAL	33	UG/L	20
		LEAD, TOTAL	7.9	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	1110	UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1		SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	12	UG/L	10
BLANK1	AA	ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2



WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	03-102-M002	SILVER, TOTAL	39	50	UG/L	86
		ARSENIC, TOTAL	47	40	UG/L	79
		BERYLLIUM, TOTAL	36	50	UG/L	90
		CADMIUM, TOTAL	54	50	UG/L	86
		CHROMIUM, TOTAL	240	200	UG/L	89
		COPPER, TOTAL	329	250	UG/L	99
		NICKEL, TOTAL	453	500	UG/L	84
		LEAD, TOTAL	38	20	UG/L	67
		ANTIMONY, TOTAL	69	100	UG/L	69
		SELENIUM, TOTAL	10	10	UG/L	80
		THALLIUM, TOTAL	8.4	50	UG/L	12
		ZINC, TOTAL	941	500	UG/L	97

WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/02/87.

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	03-102-M002	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	16	16	4.3
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	11	9.0	20
		CHROMIUM, TOTAL	62	69	11
		COPPER, TOTAL	81	84	3.6
		NICKEL, TOTAL	35	29	19
		LEAD, TOTAL	25	23	10
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.0	2.0 u	NC
		THALLIUM, TOTAL	5.0 u	5.0 u	NC
		ZINC, TOTAL	456	518	13

## WESTON ANALYTICS

## INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1	LCS	SILVER, TOTAL	45	50	UG/L	96
		BERYLLIUM, TOTAL	39	50	UG/L	96
		CADMIUM, TOTAL	48	50	UG/L	94
		CHROMIUM, TOTAL	173	200	UG/L	88
		COPPER, TOTAL	257	250	UG/L	99
		NICKEL, TOTAL	449	500	UG/L	92
		ANTIMONY, TOTAL	91	100	UG/L	91
		ZINC, TOTAL	476	500	UG/L	93
BLANK1R	LCS	SILVER, TOTAL	43	50	UG/L	92
		BERYLLIUM, TOTAL	37	50	UG/L	92
		CADMIUM, TOTAL	43	50	UG/L	84
		CHROMIUM, TOTAL	173	200	UG/L	88
		COPPER, TOTAL	260	250	UG/L	100
		NICKEL, TOTAL	417	500	UG/L	85
		ANTIMONY, TOTAL	89	100	UG/L	88
		ZINC, TOTAL	441	500	UG/L	86
BLANK1	LCS	ARSENIC, TOTAL	38	40	UG/L	96
		LEAD, TOTAL	23	20	UG/L	107
		SELENIUM, TOTAL	11	10	UG/L	110
		THALLIUM, TOTAL	45	50	UG/L	83

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-561

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
BLANK1R	LCS	ARSENIC, TOTAL	38	40	UG/L	94
		LEAD, TOTAL	23	20	UG/L	107
		SELENIUM, TOTAL	12	10	UG/L	120
		THALLIUM, TOTAL	48	50	UG/L	91

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/02/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
LCS1	HG1	MERCURY, LCS	4.2	4.0	UG/L	105
LCS2	HG1	MERCURY, LCS	3.9	4.0	UG/L	98

## WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0010	02-101-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	3.9	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	9.0	UG/L	5.0
		CHROMIUM, TOTAL	15	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	31	UG/L	20
		LEAD, TOTAL	5.0	u UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	640	UG/L	10
-0020	02-101-M102	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	4.4	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	7.0	UG/L	5.0
		CHROMIUM, TOTAL	19	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	35	UG/L	20
		LEAD, TOTAL	5.5	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	578	UG/L	10

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0030	01-004-P002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	9.5	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	8.0	UG/L	5.0
		CHROMIUM, TOTAL	30	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	48	UG/L	20
		LEAD, TOTAL	6.6	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	29	UG/L	10
		-0040	01-007-P002	SILVER, TOTAL	10
ARSENIC, TOTAL	15			UG/L	2.0
BERYLLIUM, TOTAL	2.0			u UG/L	2.0
CADMIUM, TOTAL	11			UG/L	5.0
CHROMIUM, TOTAL	35			UG/L	10
COPPER, TOTAL	24			UG/L	20
MERCURY, TOTAL	0.2			u UG/L	0.2
NICKEL, TOTAL	56			UG/L	20
LEAD, TOTAL	6.5			UG/L	5.0
ANTIMONY, TOTAL	30			u UG/L	30
SELENIUM, TOTAL	2.0			u UG/L	2.0
THALLIUM, TOTAL	5.0			u UG/L	5.0
ZINC, TOTAL	40			UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0050	01-010-P002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	17	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	11	UG/L	5.0
		CHROMIUM, TOTAL	41	UG/L	10
		COPPER, TOTAL	21	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	65	UG/L	20
		LEAD, TOTAL	9.0	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	20	UG/L	10
-0060	06-109-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	3.7	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	18	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.2	UG/L	5.0
		ZINC, TOTAL	649	UG/L	10



## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0070	06-110-M002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.5	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	22	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	10	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	8.7	UG/L	5.0
		ZINC, TOTAL	904	UG/L	10
-0080	01-009-P002	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	20	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	6.0	UG/L	5.0
		CHROMIUM, TOTAL	54	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	27	UG/L	20
		LEAD, TOTAL	6.8	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	8.0	UG/L	5.0
		ZINC, TOTAL	33	UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK1		SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	12	UG/L	10
BLANK1	AA	ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

## WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
BLANK1	LCS	SILVER, TOTAL	45	50	UG/L	96
		BERYLLIUM, TOTAL	39	50	UG/L	96
		CADMIUM, TOTAL	48	50	UG/L	94
		CHROMIUM, TOTAL	173	200	UG/L	88
		COPPER, TOTAL	257	250	UG/L	99
		NICKEL, TOTAL	449	500	UG/L	92
		ANTIMONY, TOTAL	91	100	UG/L	91
		ZINC, TOTAL	476	500	UG/L	93
BLANK1R	LCS	SILVER, TOTAL	43	50	UG/L	92
		BERYLLIUM, TOTAL	37	50	UG/L	92
		CADMIUM, TOTAL	43	50	UG/L	84
		CHROMIUM, TOTAL	173	200	UG/L	88
		COPPER, TOTAL	260	250	UG/L	100
		NICKEL, TOTAL	417	500	UG/L	85
		ANTIMONY, TOTAL	89	100	UG/L	88
		ZINC, TOTAL	441	500	UG/L	86
BLANK1	LCS	ARSENIC, TOTAL	38	40	UG/L	96
		LEAD, TOTAL	23	20	UG/L	107
		SELENIUM, TOTAL	11	10	UG/L	110
		THALLIUM, TOTAL	45	50	UG/L	83

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
BLANK1R	LCS	ARSENIC, TOTAL	38	40	UG/L	94
		LEAD, TOTAL	23	20	UG/L	107
		SELENIUM, TOTAL	12	10	UG/L	120
		THALLIUM, TOTAL	48	50	UG/L	91

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	HG1	MERCURY, LCS	4.2	4.0	UG/L	105
LCS2	HG1	MERCURY, LCS	3.9	4.0	UG/L	98

## WESTON ANALYTICS

## INORGANICS ACCURACY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	02-101-M002	SILVER, TOTAL	35	50	UG/L	100
		ARSENIC, TOTAL	37	40	UG/L	83
		BERYLLIUM, TOTAL	36	50	UG/L	94
		CADMIUM, TOTAL	50	50	UG/L	82
		CHROMIUM, TOTAL	184	200	UG/L	85
		COPPER, TOTAL	232	250	UG/L	97
		MERCURY, TOTAL	5.0	5.0	UG/L	99
		NICKEL, TOTAL	445	500	UG/L	83
		LEAD, TOTAL	19	20	UG/L	73
		ANTIMONY, TOTAL	89	100	UG/L	89
		SELENIUM, TOTAL	8.0	10	UG/L	90
		THALLIUM, TOTAL	9.8	50	UG/L	14
		ZINC, TOTAL	1030	500	UG/L	78

WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-569

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-----	-----	-----	-----	-----	-----
-0010	02-101-M002	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	3.9	4.0	2.5
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	9.0	10	11
		CHROMIUM, TOTAL	15	19	24
		COPPER, TOTAL	20 u	20 u	NC
		MERCURY, TOT	0.2 u	0.2 u	NC
		NICKEL, TOTAL	31	40	25
		LEAD, TOTAL	5.0 u	5.0	NC
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.0 u	2.0 u	NC
		THALLIUM, TOTAL	5.0 u	5.0 u	NC
		ZINC, TOTAL	640	615	4.0



## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0010	02-101-M202	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.0	u UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	UG/L	10
		COPPER, TOTAL	22	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	6.7	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	79	UG/L	10
-0020	04-105-M202	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.0	u UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	39	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	UG/L	20
		LEAD, TOTAL	10	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.7	UG/L	5.0
		ZINC, TOTAL	35	UG/L	10

## WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	ZRECOV
-0010	02-101-M202	SILVER, TOTAL	38	50	UG/L	100
		ARSENIC, TOTAL	37	40	UG/L	93
		BERYLLIUM, TOTAL	37	50	UG/L	96
		CADMIUM, TOTAL	50	50	UG/L	96
		CHROMIUM, TOTAL	184	200	UG/L	87
		COPPER, TOTAL	272	250	UG/L	100
		NICKEL, TOTAL	472	500	UG/L	92
		LEAD, TOTAL	25	20	UG/L	93
		ANTIMONY, TOTAL	89	100	UG/L	89
		SELENIUM, TOTAL	9.0	10	UG/L	90
		THALLIUM, TOTAL	45	50	UG/L	81
		ZINC, TOTAL	476	500	UG/L	79
-0030	02-006-B20	SILVER, TOTAL	3.7	4.6	MG/KG	84
		ARSENIC, TOTAL	6.8	3.9	MG/KG	95
		BERYLLIUM, TOTAL	4.3	4.6	MG/KG	86
		CADMIUM, TOTAL	7.1	4.6	MG/KG	89
		CHROMIUM, TOTAL	31	19	MG/KG	69
		COPPER, TOTAL	36	23	MG/KG	72
		NICKEL, TOTAL	54	46	MG/KG	87
		LEAD, TOTAL	66	46	MG/KG	81
		ANTIMONY, TOTAL	1.7	9.3	MG/KG	18
		SELENIUM, TOTAL	0.77	0.97	MG/KG	89
		THALLIUM, TOTAL	5.0	4.9	MG/KG	97
		ZINC, TOTAL	61	46	MG/KG	78

## WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	02-101-M202	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	2.0 u	2.0 u	NC
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	5.0 u	NC
		CHROMIUM, TOTAL	10	11	9.5
		COPPER, TOTAL	22	20 u	NC
		NICKEL, TOTAL	20 u	20 u	NC
		LEAD, TOTAL	6.7	6.2	7.8
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.0 u	2.0 u	NC
		THALLIUM, TOTAL	5.0 u	7.9	NC
		ZINC, TOTAL	79	12	147
-0030	02-006-B20	SILVER, TOTAL	1.9 u	1.9 u	NC
		ARSENIC, TOTAL	3.1	3.8	19
		BERYLLIUM, TOTAL	0.38u	0.38u	NC
		CADMIUM, TOTAL	3.0	2.3	28
		CHROMIUM, TOTAL	19	11	47
		COPPER, TOTAL	19	15	23
		NICKEL, TOTAL	14	9.7	35
		LEAD, TOTAL	28	19 u	NC
		ANTIMONY, TOTAL	5.7 u	5.7 u	NC
		SELENIUM, TOTAL	0.36u	0.36u	NC
		THALLIUM, TOTAL	0.89u	0.89u	NC
		ZINC, TOTAL	24	17	36

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1	LCS	SILVER, TOTAL	45	50	UG/L	96
		BERYLLIUM, TOTAL	39	50	UG/L	96
		CADMIUM, TOTAL	48	50	UG/L	94
		CHROMIUM, TOTAL	173	200	UG/L	88
		COPPER, TOTAL	257	250	UG/L	99
		NICKEL, TOTAL	449	500	UG/L	92
		ANTIMONY, TOTAL	91	100	UG/L	91
		ZINC, TOTAL	476	500	UG/L	93
BLANK1R	LCS	SILVER, TOTAL	43	50	UG/L	92
		BERYLLIUM, TOTAL	37	50	UG/L	92
		CADMIUM, TOTAL	43	50	UG/L	84
		CHROMIUM, TOTAL	173	200	UG/L	88
		COPPER, TOTAL	260	250	UG/L	100
		NICKEL, TOTAL	417	500	UG/L	85
		ANTIMONY, TOTAL	89	100	UG/L	88
		ZINC, TOTAL	441	500	UG/L	86

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1	LCS	ARSENIC, TOTAL	38	40	UG/L	96
		LEAD, TOTAL	23	20	UG/L	107
		SELENIUM, TOTAL	11	10	UG/L	110
		THALLIUM, TOTAL	45	50	UG/L	83
BLANK1R	LCS	ARSENIC, TOTAL	38	40	UG/L	94
		LEAD, TOTAL	23	20	UG/L	107
		SELENIUM, TOTAL	12	10	UG/L	120
		THALLIUM, TOTAL	48	50	UG/L	91

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	ZRECOV
BLANK1	LCS	SILVER, TOTAL	5.2	5.0	MG/KG	104
		BERYLLIUM, TOTAL	5.1	5.0	MG/KG	104
		CADMIUM, TOTAL	5.1	5.0	MG/KG	104
		CHROMIUM, TOTAL	20	20	MG/KG	101
		COPPER, TOTAL	26	25	MG/KG	104
		NICKEL, TOTAL	52	50	MG/KG	104
		LEAD, TOTAL	49	50	MG/KG	100
		ANTIMONY, TOTAL	8.3	10	MG/KG	83
		ZINC, TOTAL	51	50	MG/KG	102
BLANK1R	LCS	SILVER, TOTAL	4.9	5.0	MG/KG	98
		BERYLLIUM, TOTAL	5.0	5.0	MG/KG	102
		CADMIUM, TOTAL	4.9	5.0	MG/KG	100
		CHROMIUM, TOTAL	17	20	MG/KG	86
		COPPER, TOTAL	25	25	MG/KG	101
		NICKEL, TOTAL	50	50	MG/KG	100
		LEAD, TOTAL	49	50	MG/KG	100
		ANTIMONY, TOTAL	8.0	10	MG/KG	80
		ZINC, TOTAL	50	50	MG/KG	99

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
BLANKIT	LCS	SILVER, TOTAL	5.5	5.0	MG/KG	110
		BERYLLIUM, TOTAL	5.1	5.0	MG/KG	104
		CADMIUM, TOTAL	5.2	5.0	MG/KG	106
		CHROMIUM, TOTAL	20	20	MG/KG	101
		COPPER, TOTAL	26	25	MG/KG	103
		NICKEL, TOTAL	52	50	MG/KG	104
		LEAD, TOTAL	50	50	MG/KG	102
		ANTIMONY, TOTAL	8.8	10	MG/KG	88
		ZINC, TOTAL	51	50	MG/KG	101
BLANKI	LCS	ARSENIC, TOTAL	3.3	4.0	MG/KG	82
		SELENIUM, TOTAL	1.2	1.0	MG/KG	120
		THALLIUM, TOTAL	5.2	5.0	MG/KG	98

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1R	LCS	ARSENIC, TOTAL	3.3	4.0	MG/KG	83
		SELENIUM, TOTAL	1.2	1.0	MG/KG	120
		THALLIUM, TOTAL	5.2	5.0	MG/KG	99
BLANK1T	LCS	ARSENIC, TOTAL	3.5	4.0	MG/KG	88
		SELENIUM, TOTAL	1.3	1.0	MG/KG	130
		THALLIUM, TOTAL	5.2	5.0	MG/KG	99



WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	HG1	MERCURY, LCS	4.2	4.0	UG/L	105
LCS2	HG1	MERCURY, LCS	3.9	4.0	UG/L	98

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
LCS3	HG1	MERCURY, LCS	3.6	4.0	UG/L	90
LCS4	HG1	MERCURY, LCS	3.7	4.0	UG/L	93



VOC Results

Water

Round 3

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Page: 1

RFW Batch Number: 8702-690

Client: LUKE AFB

Sample Information	Cust ID: 06111-M003	LAB DUP	M.S. 06109M003	06109M103	BLANK
RFW#: 0010	0010 D	0010 D	0010	0030	BLANK
Matrix: Water	Water	Water	Water	Water	Water
D.F.: 1	1	1	1	1	1
Units: ug/l	ug/l	ug/l	ug/l	ug/l	ug/l

	fl	fl	fl	fl	fl
Chloromethane.....	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	87 §	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	73 §	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	55 §	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform.....	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone.....	2 U	2 U	2 U	2 U	2 U
	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8702-690 Client: LUKE AFB Page: 1

Cust ID:	06111-M003	LAB DUP	M.S.	06109M003	06109M103	BLANK
RFW#:	0010	0010 D	0010	0020	0030	BLANK
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Page: 2

RFW Batch Number: 8702-690

Client: LUKE AFB

Sample Information  
Cust ID: B.S.  
RFW#: B.S.  
Matrix: Water  
D.F.: 1  
Units: ug/l

Sample Information	Cust ID	Units	Response
Chloromethane			NRP
Bromomethane			NRP
Vinyl Chloride			NRP
Chloroethane			NRP
Methylene Chloride			NRP
Acetone			NRP
Carbon Disulfide			NA
1,1-Dichloroethene			NRP
1,1-Dichloroethane			NRP
Trans-1,2-Dichloroethene			NRP
Chloroform			99 *
1,2-Dichloroethane			NRP
2-Butanone			NRP
1,1,1-Trichloroethane			NRP
Carbon Tetrachloride			NRP
Bromodichloromethane			93 *
1,2-Dichloropropane			NRP
Trans-1,3-Dichloropropene			NRP
Trichloroethene			84 *
Dibromochloromethane			NRP
1,1,2-Trichloroethane			NRP
Benzene			NRP
cis-1,3-Dichloropropene			NRP
2-Chloroethylvinylether			NRP
Bromoform			NRP
4-Methyl-2-pentanone			NRP

RFW Batch Number: 8702-690      Client: LUKE AFB      Page: 2

Cust ID:          B.S.  
RFW#:              B.S.

Tetrachloroethene.....	NRP	fl
1,1,2,2-Tetrachloroethane.....	NRP	fl
Toluene.....	86 ‡	fl
Chlorobenzene.....	NRP	fl
Ethylbenzene.....	NRP	fl
Styrene.....	NA	fl
Total Xylenes.....	87 ‡	fl
1,2-Dichlorobenzene.....	NRP	fl
1,3-Dichlorobenzene.....	NRP	fl
1,4-Dichlorobenzene.....	NRP	fl
Trichlorofluoromethane.....	NRP	fl
Dichlorodifluoromethane.....	NRP	fl

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-695 Client: LUKE APB Page: 1

Sample Information	Cust ID: 04104M003		LAB DUP		M.S. 0010 MS		04106M003		01001P003		06110M003	
	RFW#:	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
D.F.:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Units:	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U



RFW Batch Number: 8702-695

Client: LUKE AFB

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Cust ID: 04104M003  
RWF#: 0010

LAB DUP 0010

M.S. 0010 MS

04106M003 0020

01001P003 0030

06110M003 0040

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	87 ‡	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	93 ‡	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	95 ‡	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-695

Client: LUKE AFB

Page: 2

Sample Information	Cust ID: RFW#: Matrix: D.F.:	BLANK		B.S.		BLANK		B.S.	
		Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l
Chloromethane.....		1 U		1 U		1 U		1 U	
Bromomethane.....		1 U		1 U		1 U		1 U	
Vinyl Chloride.....		0.5 U		0.5 U		0.5 U		0.5 U	
Chloroethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
Methylene Chloride.....		4 U		4 U		4 U		4 U	
Acetone.....		10 U		10 U		10 U		10 U	
Carbon Disulfide.....		NA		NA		NA		NA	
1,1-Dichloroethene.....		0.5 U		0.5 U		0.5 U		0.5 U	
1,1-Dichloroethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
Trans-1,2-Dichloroethene.....		0.5 U		0.5 U		0.5 U		0.5 U	
Chloroform.....		0.5 U		0.5 U		0.5 U		0.5 U	
1,2-Dichloroethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
2-Butanone.....		10 U		10 U		10 U		10 U	
1,1,1-Trichloroethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
Carbon Tetrachloride.....		0.5 U		0.5 U		0.5 U		0.5 U	
Bromodichloromethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
1,2-Dichloropropane.....		0.5 U		0.5 U		0.5 U		0.5 U	
Trans-1,3-Dichloropropene.....		0.5 U		0.5 U		0.5 U		0.5 U	
Trichloroethene.....		0.5 U		0.5 U		0.5 U		0.5 U	
Dibromochloromethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
1,1,2-Trichloroethane.....		0.5 U		0.5 U		0.5 U		0.5 U	
Benzene.....		0.5 U		0.5 U		0.5 U		0.5 U	
cis-1,3-Dichloropropene.....		0.5 U		0.5 U		0.5 U		0.5 U	
2-Chloroethylvinylether.....		1 U		1 U		1 U		1 U	
Bromoform.....		2 U		2 U		2 U		2 U	
4-Methyl-2-pentanone.....		10 U		10 U		10 U		10 U	

Cust ID: RFW#	BLANK		B.S.		BLANK		B.S.	
	BLANK	BLANK	B.S.	B.S.	BLANK	BLANK	B.S.	B.S.
Tetrachloroethene.....	0.5 U	0.5 U	NRP	NRP	0.5 U	0.5 U	NRP	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	NRP	NRP	0.5 U	0.5 U	NRP	NRP
Toluene.....	0.5 U	0.5 U	86 ‡	84 ‡	0.5 U	0.5 U	NRP	NRP
Chlorobenzene.....	0.5 U	0.5 U	NRP	NRP	0.5 U	0.5 U	NRP	NRP
Ethylbenzene.....	0.5 U	0.5 U	NRP	NRP	0.5 U	0.5 U	NRP	NRP
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	NRP	NRP	0.5 U	0.5 U	NRP	NRP
1,2-Dichlorobenzene.....	1 U	1 U	NRP	NRP	1 U	1 U	NRP	NRP
1,3-Dichlorobenzene.....	1 U	1 U	NRP	NRP	1 U	1 U	NRP	NRP
1,4-Dichlorobenzene.....	1 U	1 U	NRP	NRP	1 U	1 U	NRP	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	NRP	NRP	0.5 U	0.5 U	NRP	NRP
Dichlorodifluoromethane.....	1 U	1 U	NRP	NRP	1 U	1 U	NRP	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-710 Client: LUKE AFB Page: 1

Cust ID: 01007P003 01009P003 01011P003 01010P003 03102M003 LAB DUP  
RFW#: 0010 0020 0030 0040 0050  
Matrix: Water Water Water Water Water  
D.F.: 1 1 1 1 1  
Units: ug/l ug/l ug/l ug/l ug/l

Sample Information	01007P003	01009P003	01011P003	01010P003	03102M003	LAB DUP
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8702-710 Client: LUKE AFB Page: 1

	Cust ID: 01007P003	01009P003	01011P003	01010P003	03102M003	LAB DUP
RFW#:	0010	0020	0030	0040	0050	0050
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-710 Client: LUXE AFB

Sample Information	Cust ID:	M.S.	03103M003		04105M003		04105M103		BLANK		B.S.	
			RFW#:	0050	Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l
Chloromethane.....		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromomethane.....		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Vinyl Chloride.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Methylene Chloride.....		4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	NRP
Acetone.....		84	64	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1-Dichloroethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethene.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroform.....		108 ‡	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	115 ‡
1,2-Dichloroethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Butanone.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
1,1,1-Trichloroethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Bromodichloromethane.....		78 ‡	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	83 ‡
1,2-Dichloropropane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trichloroethene.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	91 ‡
Dibromochloromethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Benzene.....		82 ‡	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	88 ‡
cis-1,3-Dichloropropene.....		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromoform.....		86 ‡	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NRP
4-Methyl-2-pentanone.....		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP

RFW Batch Number: 8702-710

Client: LUKE AFB

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Cust ID:	M.S.	03103M003	04105M003	04105M103	BLANK	B.S.
RFW#:	0050	0060	0070	0080	BLANK	B.S.
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	84 ‡
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Ethylbenzene.....	77 ‡	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	NRP
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	NRP
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	NRP

U-Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

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Client: LUKE AFB

RFW Batch Number: 8702-710

Cust ID: BLANK B.S.  
RWF#: BLANK B.S.  
Matrix: Water  
D.F.: 1  
Units: ug/l

Sample Information	ug/l	fl	fl	fl	fl
Chloromethane.....	1 U				NRP
Bromomethane.....	1 U				NRP
Vinyl Chloride.....	0.5 U				NRP
Chloroethane.....	0.5 U				NRP
Methylene Chloride.....	4 U				NRP
Acetone.....	10 U				NRP
Carbon Disulfide.....	NA				NA
1,1-Dichloroethene.....	0.5 U				NRP
1,1-Dichloroethane.....	0.5 U				NRP
Trans-1,2-Dichloroethene.....	0.5 U				NRP
Chloroform.....	0.5 U				118 *
1,2-Dichloroethane.....	0.5 U				NRP
2-Butanone.....	10 U				NRP
1,1,1-Trichloroethane.....	0.5 U				NRP
Carbon Tetrachloride.....	0.5 U				NRP
Bromodichloromethane.....	0.5 U				92 *
1,2-Dichloropropane.....	0.5 U				NRP
Trans-1,3-Dichloropropene.....	0.5 U				NRP
Trichloroethene.....	0.5 U				94 *
Dibromochloromethane.....	0.5 U				NRP
1,1,2-Trichloroethane.....	0.5 U				NRP
Benzene.....	0.5 U				87 *
cis-1,3-Dichloropropene.....	0.5 U				NRP
2-Chloroethylvinylether.....	1 U				NRP
Bromoform.....	2 U				NRP
4-Methyl-2-pentanone.....	10 U				NRP



RFW Batch Number: 8702-710

Client: LUKE AFB

Page: 3

	Cust ID:	BLANK	B.S.
	RFW#:	BLANK	B.S.
Tetrachloroethene.....	0.5 U		NRP
1,1,2,2-Tetrachloroethane.....	0.5 U		NRP
Toluene.....	0.5 U		96 %
Chlorobenzene.....	0.5 U		102 %
Ethylbenzene.....	0.5 U		NRP
Styrene.....	NA		NA
Total Xylenes.....	0.5 U		NRP
1,2-Dichlorobenzene.....	1 U		NRP
1,3-Dichlorobenzene.....	1 U		NRP
1,4-Dichlorobenzene.....	1 U		NRP
Trichlorofluoromethane.....	0.5 U		NRP
Dichlorodifluoromethane.....	1 U		NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

**WESTON**

WESTON Analytix  
LUKE AFB  
RFWBN: 8702-710, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15      Analysis Date: 02-23-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Carter P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

3-13-87

DATE

WESTON Analytics

LUKE AFB

RFWEN: 8702-710, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Date: 02-23-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>		<u>2nd COLUMN RESULTS</u>
8702-710-0050	Acetone	84	ug/l	YES
8702-710-0060	Acetone	64	ug/l	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-724

Client: LUKE AFB

Page: 1

Cust ID: 05107M003 05108M003 02101M003 01004P003 LAB DUP M.S.

RFW#: 0010 0020 0030 0040 0040 0040 MS

Matrix: Water Water Water Water Water Water

D.F.: 1 1 1 1 1 1

Units: ug/l ug/l ug/l ug/l ug/l ug/l

	05107M003	05108M003	02101M003	01004P003	LAB DUP	M.S.
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	91
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	113 §
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	103 §
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	49 §
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	82 §
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	120 §
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8702-724

Client: LUKE AFB

Page: 1

Cust ID: 05107M003 05108M003 02101M003 01004P003 LAB DUP M.S.  
RFW#: 0010 0020 0030 0040 0040 0040 0040 MS

	fl	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	89 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U

H-200

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-724

Client: LUKE AFB

Cust ID: 02101M203 03102M203

Sample

Information

RFW#: 0050

0060

Matrix: Water

Water

D.F.: 1

1

Units:

ug/l

	ug/l	fl	ug/l	fl
Chloromethane.....	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U
Acetone.....	33	28	28	28
Carbon Disulfide.....	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U

RFW Batch Number: 8702-724 Client: LUKE AFB

Cust ID: 02101M203 03102M203  
RFW#: 0050 0060

	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U
Styrene.....	NA	NA
Total Xylenes.....	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-724

Client: LUKE AFB

Page: 3

Sample Information	Cust ID:	BLANK		B.S.		BLANK		B.S.		
		RFW#:	Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l
Matrix:										
D.F.:										
Units:										
Chloromethane.....		1 U			NRP		1 U		NRP	
Bromomethane.....		1 U			NRP		1 U		NRP	
Vinyl Chloride.....		0.5 U			NRP		0.5 U		NRP	
Chloroethane.....		0.5 U			NRP		0.5 U		NRP	
Methylene Chloride.....		4 U			NRP		4 U		NRP	
Acetone.....		10 U			NRP		10 U		NRP	
Carbon Disulfide.....		NA			NA		NA		NA	
1,1-Dichloroethene.....		0.5 U			NRP		0.5 U		NRP	
1,1-Dichloroethane.....		0.5 U			NRP		0.5 U		NRP	
Trans-1,2-Dichloroethene.....		0.5 U			NRP		0.5 U		NRP	
Chloroform.....		0.5 U			118 %		0.5 U		98 %	
1,2-Dichloroethane.....		0.5 U			NRP		0.5 U		NRP	
2-Butanone.....		10 U			NRP		10 U		NRP	
1,1,1-Trichloroethane.....		0.5 U			NRP		0.5 U		NRP	
Carbon Tetrachloride.....		0.5 U			NRP		0.5 U		NRP	
Bromodichloromethane.....		0.5 U			92 %		0.5 U		97 %	
1,2-Dichloropropane.....		0.5 U			NRP		0.5 U		NRP	
Trans-1,3-Dichloropropene.....		0.5 U			NRP		0.5 U		NRP	
Trichloroethene.....		0.5 U			94 %		0.5 U		101 %	
Dibromochloromethane.....		0.5 U			NRP		0.5 U		NRP	
1,1,2-Trichloroethane.....		0.5 U			NRP		0.5 U		NRP	
Benzene.....		0.5 U			87 %		0.5 U		111 %	
cis-1,3-Dichloropropene.....		0.5 U			NRP		0.5 U		NRP	
2-Chloroethylvinylether.....		1 U			NRP		1 U		NRP	
Bromoform.....		2 U			NRP		2 U		NRP	
4-Methyl-2-pentanone.....		10 U			NRP		10 U		NRP	



Cust ID: RFW#:	BLANK		B.S.		BLANK		B.S.	
	fl	fl	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Toluene.....	0.5 U	96 ‡	0.5 U	96 ‡	0.5 U	115 ‡	0.5 U	115 ‡
Chlorobenzene.....	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Ethylbenzene.....	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
1,2-Dichlorobenzene.....	1 U	NRP	1 U	NRP	1 U	NRP	1 U	NRP
1,3-Dichlorobenzene.....	1 U	NRP	1 U	NRP	1 U	NRP	1 U	NRP
1,4-Dichlorobenzene.....	1 U	NRP	1 U	NRP	1 U	NRP	1 U	NRP
Trichlorofluoromethane.....	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Dichlorodifluoromethane.....	1 U	NRP	1 U	NRP	1 U	NRP	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

**WESTON**

WESTON Analytics

LUKE AFB

RFWBN: 8702-724, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 02-24-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Carter P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

3-13-87  
DATE

WESTON Analytics

LUKE AFB

RFWBN: 8702-724, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15 . Analysis Date: 02-24-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>		<u>2nd COLUMN RESULTS</u>
8702-724-0040	Acetone	91	ug/l	YES
8702-724-0050	Acetone	33	ug/l	YES
8702-724-0060	Acetone	28	ug/l	YES
8702-724-0110	Acetone	44	ug/l	YES



**BNA Results**

**Water**

**Round 3**

**1036B**

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-690      Client: LUKE AFB      Page: 1

Sample Information	Cust ID: 06111M003	06111M003	06109M003	06109M003	06109M103	BLANK(289)	06111M003
MDL=10xD.F., except (2)=50x, (3)=20x	RFW#: 0010	0010 DUP	0020	0030	Water	Water	Water
	Matrix: Water	Water	Water	Water	Water	Water	Water
	D.F.: 1	1	1	1	1	1	1
	Units: ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Surrogate	2-Fluorophenol:	66 \$	60 \$	78 \$	62 \$	73 \$	69 \$
Recovery (%)	Phenol-d5:	52 \$	50 \$	54 \$	50 \$	46 \$	57 \$
	2,4,6-Br3-Phenol:	120 \$	105 \$	145 \$	125 \$	128 \$	104 \$
	Nitrobenzene-d5:	88 \$	94 \$	86 \$	102 \$	122 \$	94 \$
	2-Fluorobiphenyl:	90 \$	98 \$	94 \$	110 \$	124 \$	102 \$
	p-Terphenyl-d14:	132 \$	120 \$	140 \$	148 \$	156 \$	144 \$
	Phenol.....	10 U	10 U	10 U	10 U	10 U	56 \$
	bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
	2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	104 \$
	1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
	1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	84 \$
	Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U
	1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
	2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
	bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U
	4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
	N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	88 \$
	Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U
	Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
	Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U
	2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
	2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U
	Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U
	bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U
	2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
	1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	80 \$
	Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
	4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U
	Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U
	4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	105 \$
	2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
	Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U

Cust ID: 06111M003 06111M003 06109M003 06109M103 BLANK(289) 06111M003  
RFW#: 0010 0010 DUP 0020 0030 BLANK 0010 MS

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	98 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	30 \$
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	70 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	59 \$
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	NR
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	75 \$
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	10 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	20 U
bis(2-Ethylhexyl) Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

LABORATORY ANALYTICAL SERVICES  
 GC/MS DATA SUMMARY  
 SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-690      Client: LUKE AFB      Page: 2

Sample Information	Cust ID:	B.S.	B.S.D.
MDL=10xD.F., except	RFW#:	B.S.	B.S.D.
(2)=50X, (3)=20X	Matrix:	Water	Water
	D.F.:	1	1
	Units:	ug/l	ug/l
2-Fluorophenol:	56	38	38
Phenol-d5:	42	29	29
2,4,6-Br3-Phenol:	71	40	40
Nitrobenzene-d5:	86	90	90
2-Fluorobiphenyl:	88	96	96
p-Terphenyl-d14:	86	98	98
Phenol.....	43	30	30
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U
2-Chlorophenol.....	108	76	76
1,3-Dichlorobenzene.....	10 U	10 U	10 U
1,4-Dichlorobenzene.....	82	86	86
Benzyl Alcohol.....	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	90	96	96
Hexachloroethane.....	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	78	82	82
Naphthalene.....	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	113	80	80
2-Methylnaphthalene.....	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U

RFW Batch Number: 8702-690

Client: LUKE AFB

Page: 2

Cust ID:  
RFW#:

B.S.  
B.S.

B.S.D.  
B.S.D.

2,4,6-Trichlorophenol.....	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U
Acenaphthene.....	84 \$	92 \$	92 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U
4-Nitrophenol(2).....	43 \$	21 \$	21 \$
Dibenzofuran.....	10 U	10 U	10 U
2,4-Dinitrotoluene.....	84 \$	80 \$	80 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U
Pentachlorophenol(2).....	91 \$	43 \$	43 \$
Phenanthrene.....	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U
Pyrene.....	96 \$	120 \$	120 \$
Butyl Benzyl Phthalate.....	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U



WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-695 Client: LUKE AFB Page: 1

Cust ID: 04104M003 04106M003 01001P003 06110M003 BLANK(289) B.S.  
 RFW#: 0010 0020 0030 0040 BLANK B.S.  
 Matrix: Water Water Water Water Water  
 D.F.: 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l

Surrogate (%)	2-Fluorophenol:	35 \$	56 \$	51 \$	73 \$	56 \$
Recovery (%)	Phenol-d5:	21 \$	41 \$	23 \$	46 \$	42 \$
	2,4,6-Br3-Phenol:	63 \$	59 \$	66 \$	128 \$	71 \$
	Nitrobenzene-d5:	105 \$	60 \$	1 \$	122 \$	86 \$
	2-Fluorobiphenyl:	120 \$	66 \$	3 \$	124 \$	88 \$
	p-Terphenyl-d14:	121 \$	86 \$	95 \$	156 \$	86 \$
Phenol.....		10 U	10 U	10 U	10 U	43 \$
bis(2-Chloroethyl)Ether.....		10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....		10 U	10 U	10 U	10 U	108 \$
1,3-Dichlorobenzene.....		10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....		10 U	10 U	10 U	10 U	82 \$
Benzyl Alcohol.....		10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....		10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....		10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether.....		10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....		10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....		10 U	10 U	10 U	10 U	90 \$
Hexachloroethane.....		10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....		10 U	10 U	10 U	10 U	10 U
Isophorone.....		10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....		10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....		10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....		50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....		10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....		10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....		10 U	10 U	10 U	10 U	78 \$
Naphthalene.....		10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....		10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....		10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....		10 U	10 U	10 U	10 U	113 \$
2-Methylnaphthalene.....		10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....		10 U	10 U	10 U	10 U	10 U

Cust ID: 04104M003 04106M003 01001P003 06110M003 BLANK(289) B.S.  
 RFW#: 0010 0020 0030 0040 BLANK B.S.

	fl	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U	84 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	43 \$
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	84 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	91 \$
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	96 \$
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	25	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U

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 12  
 21

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-710

Client: LUKE AFB

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Sample Information	Cust ID	01007P003	01009P003	01011P003	01010P003	03102M003	03103M003
MDL=10xD.F., except (2)=50x, (3)=20x	RFW#:	0010	0020	0030	0040	0050	0060
Matrix:	Water	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
2-Fluorophenol:	59 \$	58 \$	70 \$	66 \$	58 \$	30 \$	
Phenol-d5:	52 \$	59 \$	70 \$	54 \$	55 \$	25 \$	
2,4,6-Br3-Phenol:	78 \$	66 \$	82 \$	75 \$	76 \$	36 \$	
Nitrobenzene-d5:	100 \$	116 \$	130 \$	116 \$	98 \$	73 \$	
2-Fluorobiphenyl:	114 \$	124 \$	136 \$	128 \$	104 \$	75 \$	
p-Terphenyl-d14:	146 \$	162 \$	192 \$	172 \$	78 \$	78 \$	

Phenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8702-710

Client: LUKE AFB

Page: 1

Cust ID: 01007P003 01009P003 01011P003 01010P003 03102M003 03103M003  
RFW#: 0010 0020 0030 0040 0050 0060

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-710      Client: LUKE AFB      Page: 2

Cust ID: 04105M002      04105M103      BLANK(289)      B.S.      B.S.D.  
 RFW#: 0070      0080      BLANK      B.S.      B.S.D.  
 Matrix: Water      Water      Water      Water      Water  
 D.F.: 1      1      1      1      1  
 Units: ug/l      ug/l      ug/l      ug/l      ug/l

Surrogate	49	38	44	56	38
2-Fluorophenol:	49	38	44	56	38
Phenol-d5:	39	33	33	42	29
2,4,6-Br3-Phenol:	70	60	43	71	40
Nitrobenzene-d5:	82	62	82	86	90
2-Fluorobiphenyl:	94	78	80	88	96
p-Terphenyl-d14:	86	132	96	86	98
Phenol.....	10 U	10 U	10 U	43	30
bis(2-Chloroethyl)Ether.....	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol.....	10 U	10 U	10 U	108	76
1,3-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene.....	10 U	10 U	10 U	82	86
Benzyl Alcohol.....	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene.....	10 U	10 U	10 U	10 U	10 U
2-Methylphenol.....	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether.....	10 U	10 U	10 U	10 U	10 U
4-Methylphenol.....	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine.....	10 U	10 U	10 U	90	96
Hexachloroethane.....	10 U	10 U	10 U	10 U	10 U
Nitrobenzene.....	10 U	10 U	10 U	10 U	10 U
Isophorone.....	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol.....	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol.....	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2).....	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)Methane.....	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol.....	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene.....	10 U	10 U	10 U	78	82
Naphthalene.....	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline.....	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene.....	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol.....	10 U	10 U	10 U	113	80
2-Methylnaphthalene.....	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene.....	10 U	10 U	10 U	10 U	10 U

Cust ID: 04105M002 04105M103 BLANK(289)

RFW#: 0070 0080 BLANK

	10 U	10 U	10 U	B.S.	B.S.D.
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	84 \$	92 \$
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	43 \$	21 \$
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	84 \$	80 \$
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	91 \$	43 \$
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	96 \$	120 \$
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl) Phthalate.....	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U
Benzo(9,h,1)Perylene.....	10 U	10 U	10 U	10 U	10 U

WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-724 Client: LUKE AFB Page: 1

Cust ID: 05107M003 0010 0020 0030 0040 0040 DUP 01004P003 02101M003 01004P003 02101M203

Sample Information RFW#: 0010 0020 0030 0040 0040 DUP 01004P003 02101M003 01004P003 02101M203  
 Matrix: Water Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate Recovery (%) 2-Fluorophenol: 49 \$ 55 \$ 30 \$ 34 \$ 2 \$ 36 \$  
 Phenol-d5: 39 \$ 68 \$ 29 \$ 31 \$ 14 \$ 30 \$  
 2,4,6-Br3-Phenol: 54 \$ 59 \$ 41 \$ 59 \$ 54 \$ 59 \$  
 Nitrobenzene-d5: 68 \$ 125 \$ 50 \$ 56 \$ 28 \$ 70 \$  
 2-Fluorobiphenyl: 58 \$ 112 \$ 54 \$ 68 \$ 82 \$ 78 \$  
 p-Terphenyl-d14: 80 \$ 121 \$ 66 \$ 92 \$ 110 \$ 98 \$

Compound	05107M003	0010	0020	0030	0040	0040 DUP	01004P003	02101M003	01004P003	02101M203
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl) Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl) Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy) Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8702-724

Client: LUKE AFB

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Cust ID: 05107M003 05108M003 02101M003 01004P003 01004P003 02101M203  
RWF#: 0010 0020 0030 0040 0040 DUP 0050

	fl	fl	fl	fl	fl	fl
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	12	10 U	10 U	10 U	32
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U



WESTON ANALYTICS  
GC/MS DATA SUMMARY  
SEMI-VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8702-724 Client: LUKE AFB

Cust ID: 03102M203 01004P003 BS BSD BLANK  
 RFW#: 0060 0040 MS BS BSD BLANK  
 Matrix: Water Water Water  
 D.F.: 1 1 1  
 Units: ug/l ug/l ug/l

Surrogate 2-Fluorophenol: ND \$ 35 \$ 62 \$ 68 \$ 62 \$  
 Recovery (\$) Phenol-d5: ND \$ 34 \$ 58 \$ 65 \$ 58 \$  
 2,4,6-Br3-Phenol: 46 \$ 57 \$ 54 \$ 70 \$ 54 \$  
 Nitrobenzene-d5: 58 \$ 64 \$ 44 \$ 58 \$ 44 \$  
 2-Fluorobiphenyl: 68 \$ 80 \$ 64 \$ 75 \$ 64 \$  
 p-Terphenyl-d14: 96 \$ 92 \$ 60 \$ 62 \$ 60 \$

Sample Information	MDL=10xD.F., except (2)=50x, (3)=20x	Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l	Water	ug/l
Phenol	10 U	10 U	29 \$	31 \$	70 \$	10 U	10 U	10 U	10 U		
bis(2-Chloroethyl) Ether	10 U	10 U	72 \$	34 \$	80 \$	10 U	10 U	10 U	10 U		
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
1,3-Dichlorobenzene	10 U	10 U	66 \$	32 \$	72 \$	10 U	10 U	10 U	10 U		
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
bis(2-Chloroisopropyl) Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
4-Methylphenol	10 U	10 U	66 \$	28 \$	74 \$	10 U	10 U	10 U	10 U		
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Benzoic Acid(2)	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U		
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
1,2,4-Trichlorobenzene	10 U	10 U	64 \$	32 \$	74 \$	10 U	10 U	10 U	10 U		
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
4-Chloro-3-methylphenol	10 U	10 U	75 \$	27 \$	75 \$	10 U	10 U	10 U	10 U		
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		

RFW Batch Number: 8702-724

Client: LUKE AFB

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Cust ID: 03102M203 01004P003  
RFW#: 0060 0040 MS

	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene.....	10 U	78 \$	44 \$	100 \$	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol(2).....	50 U	35 \$	25 \$	85 \$	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene.....	10 U	48 \$	32 \$	100 \$	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol(2).....	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine(1).....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol(2).....	50 U	55 \$	14 \$	60 \$	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene.....	10 U	94 \$	38 \$	84 \$	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl Benzyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine(3).....	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Octyl Phthalate.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U



**Pesticide/PCB Results**

**Water**

**Round 3**

**1036B**

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8702-690 Client: LUKE AFB Page: 1

Sample Information  
 Cust ID: 06111M003 06111M003 06111M003 06109M003 06109M103 04104M003  
 RFW#: 690-0010 0010 DUP 0010 MS 690-0020 690-0030 695-0010  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 90 \$ 99 \$ 93 \$ 95 \$ 89 \$ 96 \$

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	90 \$	0.05 U	0.05 U	0.05 U
Heptachlor	0.05 U	0.05 U	85 \$	0.05 U	0.05 U	0.05 U
Aldrin	0.05 U	0.05 U	67 \$	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	0.1 U	0.1 U	82 \$	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.1 U	0.1 U	108 \$	0.1 U	0.1 U	0.1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	127 \$	0.1 U	0.1 U	0.1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U

\$=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8702-695 Client: LUKE AFB Page: 2

Sample Information  
 Cust ID: 04106M003 01001P003 06110M003 01007P003 01009P003 01011P003  
 RFW#: 695-0020 695-0030 695-0040 710-0010 710-0020 710-0030  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 94 ‡ 93 ‡ 69 ‡ 92 ‡ 93 ‡ 87 ‡

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U

‡=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8702-710 Client: LUKE AFB Page: 3

Sample Information  
 Cust ID: 01010P003 03102M003 03103M003 04105M003 04105M103 05107M003  
 RFW#: 710-0040 710-0050 710-0060 710-0070 710-0080 724-0010  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 89 ‡ 62 ‡ 68 ‡ 53 ‡ 85 ‡ 86 ‡

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U

‡=Percent recovery. NS=Not spiked.  
 U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB'S  
 COMMERCIAL LIST

RFW Batch Number: 8702-724

Client: LUKE AFB

Page: 4

Sample Information  
 Cust ID: 05108M003 02101M003 01004P003 01004P003 01004P003 02101M203  
 RFW#: 724-0020 724-0030 724-0040 0040 DUP 0040 MS 724-0050  
 Matrix: Water Water Water Water Water Water  
 D.F.: 1 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 89 ‡ 95 ‡ 114 ‡ 82 ‡ 46 ‡ 91 ‡

Analyte:

Alpha-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane)	0.05 U	0.05 U	0.05 U	0.05 U	55 ‡	0.05 U
Heptachlor	0.05 U	0.05 U	0.05 U	0.05 U	56 ‡	0.05 U
Aldrin	0.05 U	0.05 U	0.05 U	0.05 U	46 ‡	0.05 U
Heptachlor Epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U
4,4'-DDE	0.1 U	0.1 U	0.1 U	0.1 U	56 ‡	0.1 U
Endrin	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	44 ‡	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U	0.1 U	60 ‡	0.1 U
Methoxychlor	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U

‡=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.

WESTON ANALYTICS  
 PESTICIDES/PCB's  
 COMMERCIAL LIST

RFW Batch Number: 8702-724 Client: LUKE AFB Page: 5

Cust ID: 03102M203 BLANK #1 B.S. #1 B.S.D. #1 B.S.#2  
 RFW#: 724-0060 BLANK BLANK B.S. B.S.D. B.S.  
 Matrix: Water Water Water Water Water  
 D.F.: 1 1 1 1 1  
 Units: ug/l ug/l ug/l ug/l ug/l

Surrogate: Di-n-butylchloroendate: 87 § 87 § 92 § 97 § 70 § 88 §

Analyte:

Alpha-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-BHC (Lindane).....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I.....	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone.....	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

§=Percent recovery. NS=Not spiked.

U=Analyzed, not detected. B=Present in blank. NR=Not requested.



WESTON ANALYTICS  
PESTICIDES/PCB's  
COMMERCIAL LIST

RFW Batch Number: 8702-724 Client: LUKE AFB Page: 6

Sample Information  
Cust ID: B.S.D. #2  
Rfw#: B.S.D.  
Matrix: Water  
D.F.: 1  
Units: ug/l

Surrogate: Di-n-butylchloroendate: 109 % % % % fl fl fl fl fl fl

Analyte:

Alpha-BHC.....	0.05 U
Beta-BHC.....	0.05 U
Delta-BHC.....	0.05 U
Gamma-BHC (Lindane).....	97 %
Heptachlor.....	84 %
Aldrin.....	52 %
Heptachlor Epoxide.....	0.05 U
Endosulfan I.....	0.05 U
Dieldrin.....	71 %
4,4'-DDE.....	0.1 U
Endrin.....	88 %
Endosulfan II.....	0.1 U
4,4'-DDD.....	0.1 U
Endrin Aldehyde.....	0.1 U
Endosulfan Sulfate.....	0.1 U
4,4'-DDT.....	71 %
Methoxychlor.....	0.5 U
Endrin Ketone.....	0.1 U
Chlordane.....	0.5 U
Toxaphene.....	1 U
Aroclor-1016.....	0.5 U
Aroclor-1221.....	0.5 U
Aroclor-1232.....	0.5 U
Aroclor-1242.....	0.5 U
Aroclor-1248.....	0.5 U
Aroclor-1254.....	1 U
Aroclor-1260.....	1 U

%=Percent recovery. NS=Not spiked.

U=Analyzed,not detected. B=Present in blank. NR=Not requested.

**WESTEN**

**Oil and Grease, TOC, Nitrate/Nitrite, and TKN Results**

**Water**

**Round 3**

**1036B**

DATE OF REPORT: 03/04/87

CLIENT: LUKE  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 2-10-87  
W.O.NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 2-9-87  
SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8702-690-0010	06-111-M003	.50 MG/L	<.2 MG/L
-001K	MATRIX SPIKE	5.30 MG/L	
-001K	SPIKE RECOVERY	96.0 %	
-001K	06-111-M003		3.30 MG/L
-001K	SPIKE RECOVERY		94.3 %
-001R	REPLICATE	.50 MG/L	<.2 MG/L
-001S	PRECISION	.000 %	NC
-0020	06-109-M003	1.00 MG/L	<.2 MG/L
-0030	06-109-M103	.50 MG/L	<.2 MG/L
	METHOD BLANK	<.5 MG/L	
	METHOD SPIKE	4.80 MG/L	
	SPIKE RECOVERY	92.0 %	

PREPARED BY Emily C. Carfioli  
EMILY C. CARFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY Earl M. Hansen  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 03/04/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 2-11-87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 2-10-87  
SAMPLE COLLECTED BY: D. JONES

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8702-695-0010	04-104-M003	.791 MG/L	<.2 MG/L
-0020	04-106-M003	.984 MG/L	<.2 MG/L
-0030	01-001-P003	.888 MG/L	<.2 MG/L
-0040	06-110-M003	.791 MG/L	<.2 MG/L
	METHOD BLANK	<.5 MG/L	

PREPARED BY

*Emily C. Carlioli*  
EMILY C. CARLIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY

*Earl M. Hansen*  
for EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 03/04/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 2-12-87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 2-10-87  
SAMPLE COLLECTED BY: CLIENT

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8702-710-0010	01-007-P003	.791 MG/L	.40 MG/L
-0020	01-009-P003	<.5 MG/L	.20 MG/L
-0030	01-011-P003	.598 MG/L	.20 MG/L
-0040	01-010-P003	<.5 MG/L	<.2 MG/L
-0050	03-102-M003	2.91 MG/L	1.30 MG/L
-0060	03-103-M003	1.76 MG/L	2.70 MG/L
-0070	04-105-M003	.695 MG/L	<.2 MG/L
-0080	04-105-M103	.791 MG/L	<.2 MG/L
-008R	REPLICATE	.984 MG/L	
-008S	PRECISION	21.8 %	
	METHOD BLANK	<.5 MG/L	<.2 MG/L
	METHOD SPIKE	4.84 MG/L	3.40 MG/L
	SPIKE RECOVERY	92.6 %	97.1 %
	METHOD SPIKE		3.40 MG/L
	SPIKE RECOVERY		97.1 %

PREPARED BY *Emily C. Caffioli*  
EMILY C. CAFFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 03/10/87

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 2-13-87  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 2-11-87  
SAMPLE COLLECTED BY: DEB JONES

RFWSN	DESCRIPTION	NITRATE	NITRITE	TOTAL ORGANIC CARBON
8702-724-0010	05-107-M003			.749 MG/L
-0020	05-108-M003			.946 MG/L
-0030	02-101-M003	6.76	MG/L	.553 MG/L
-0040	01-004-P003			<.5 MG/L
-004K	01-004-P003			4.78 MG/L
-004K	SPIKE RECOVERY			88.5 %
-004R	REPLICATE			<.5 MG/L
-004S	PRECISION			NC
-0050	02-101-M203	<.1	MG/L	.651 MG/L
-005R	REPLICATE	<.1	MG/L	
-005S	PRECISION		NC	
-0060	03-102-M203			.946 MG/L
	METHOD BLANK	<.1	MG/L	<.5 MG/L
	METHOD BLANK			<.5 MG/L
	METHOD SPIKE	1.58	MG/L	4.59 MG/L
	SPIKE RECOVERY	98.8	%	88.6 %

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL KJELDAHL NITROGEN
8702-724-0010	05-107-M003	<.2	MG/L
-0020	05-108-M003	<.2	MG/L
-0030	02-101-M003	<.2	MG/L
-0040	01-004-P003	2.00	MG/L
-004K	MATRIX SPIKE	3.80	MG/L
-004K	SPIKE RECOVERY	51.4	%
-004R	REPLICATE	<.2	MG/L
-004S	PRECISION		NC
-0050	02-101-M203	<.2	MG/L
-0060	03-102-M203	<.2	MG/L
	METHOD BLANK	<.2	MG/L
	METHOD SPIKE	4.10	MG/L
	SPIKE RECOVERY	117	%
	METHOD SPIKE	4.20	mg/l
	SPIKE RECOVERY	120	%

<0.7\*

\* = NITRATE INTERFERENCE

PREPARED BY Emily C. Carfioli  
EMILY C. CARFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY Earl M. Hansen  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

**Radiological Results**

**Water**

**Round 3**

**1036B**

Table 1. Results of gamma spectroscopy and gross alpha, gross beta and radium-226 analyses on six (6) water samples.

Sample Description	Site	Concentration (pCi/l)						Gross beta	Ra-226
		Mn-54	Co-60	Cs-134	Cs-137	Gross alpha	Gross beta		
8702-695-0030	01-001-P003	<5.8	<6.3	<9.4	<6.1	<3.6	6.8±4.5	<0.06	
8702-710-0010	01-007-P003	<5.2	<7.7	<8.2	<5.0	3.6±1.6	2.8±1.2	<0.04	
8702-710-0020*	01-009-P003	<5.6	<5.1	<5.5	<7.8	<1.3	<1.3	<0.07	
8702-710-0030	01-011-P003	<6.1	<5.1	<3.4	<5.5	<1.3	2.3±1.2	0.17±0.04	
8702-710-0040	01-010-P003	<6.2	<5.0	<9.4	<6.4	<1.3	2.2±1.1	<0.07	
8702-724-0040	01-004-P003	<4.7	<4.5	<7.3	<4.6	<1.4	1.4±1.1	<0.05	

\* Number on the sample container is - 8702-710-0090.

Less than values are based on 3 sigma counting error for background sample. The error given is the probable counting error at 95% confidence level.

Approved by L. G. Huebner Date 3/26/87  
L. G. Huebner  
General Manager





**DBCP Results**

**Water**

**Round 3**

**1036B**

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-695      Client: LUKE AFB      Page: 1

Cust ID: 01001P003      BLANK  
RFW#: 0030      BLANK  
Matrix: Water      Water  
D.F.: 1      1  
Units: ug/l      ug/l

Dibromochloropropane..... 20 U      20 U

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

7

RFW Batch Number: 8702-710 Client: LUKE AFB

Page:

Sample Information

Cust ID:	01007P003	01009P003	01011P003	01010P003	BLANK
RFW#:	0010	0020	0030	0040	BLANK
Matrix:	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l

Dibromochloropropane..... 20 U 20 U 20 U 20 U 20 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8702-724      Client: LUKE AFB      Page: 1

Cust ID: 01004P003      BLANK  
RFW#: 0040      BLANK  
Matrix: Water      Water  
D.F.: 1  
Units: ug/l

Dibromochloropropane..... 20 U      20 U      f1      f1      f1      f1      f1

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

**WESTON**

**Metals Results**

**Water**

**Round 3**

**1036B**

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-690

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0010	06-111-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.8	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	7.1	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.7	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	889	UG/L	10
-0020	06-109-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	7.3	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	8.4	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	290	UG/L	10

WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-690

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	06-111-M003	SILVER, TOTAL	32	50	UG/L	64
		ARSENIC, TOTAL	35	40	UG/L	81
		BERYLLIUM, TOTAL	47	50	UG/L	94
		CADMIUM, TOTAL	49	50	UG/L	98
		CHROMIUM, TOTAL	201	200	UG/L	96
		COPPER, TOTAL	232	250	UG/L	93
		MERCURY, TOTAL	5.1	5.0	UG/L	98
		NICKEL, TOTAL	461	500	UG/L	96
		LEAD, TOTAL	20	20	UG/L	63
		ANTIMONY, TOTAL	83	100	UG/L	83
		SELENIUM, TOTAL	11	10	UG/L	87
		THALLIUM, TOTAL	18	50	UG/L	37
		ZINC, TOTAL	1410	500	UG/L	105

WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-690

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	06-111-M003	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	2.8	5.1	58
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	5.0 u	NC
		CHROMIUM, TOTAL	10 u	12	NC
		COPPER, TOTAL	20 u	20 u	NC
		MERCURY, TOT	0.2 u	0.2 u	NC
		NICKEL, TOTAL	20 u	20 u	NC
		LEAD, TOTAL	7.1	6.0	17
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.7	2.0 u	NC
		THALLIUM, TOTAL	5.0 u	5.0 u	NC
		ZINC, TOTAL	889	868	2.4



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-690

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0030	06-109-M103	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	6.5	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	8.1	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	309	UG/L	10
BLANK1	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	10	u UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-690

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK2	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	10	u UG/L	10
BLANK1	AA	ARSENIC, TOTAL	3.3	UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-690

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK2	AA	ARSENIC, TOTAL	2.0 u	UG/L	2.0
		LEAD, TOTAL	5.0 u	UG/L	5.0
		SELENIUM, TOTAL	2.0 u	UG/L	2.0
		THALLIUM, TOTAL	5.0 u	UG/L	5.0
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2
BLANK2	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

## WESTON ANALYTICS

## INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	ICP	SILVER, LCS	27	60	UG/L	45
		BERYLLIUM, LCS	264	250	UG/L	106
		CADMIUM, LCS	17	16	UG/L	106
		CHROMIUM, LCS	522	500	UG/L	104
		COPPER, LCS	1300	1250	UG/L	104
		NICKEL, LCS	2090	2000	UG/L	104
		ANTIMONY, LCS	46	60	UG/L	76
		ZINC, LCS	1030	1000	UG/L	103
LCS2	ICP	SILVER, LCS	31	60	UG/L	52
		BERYLLIUM, LCS	262	250	UG/L	105
		CADMIUM, LCS	16	16	UG/L	100
		CHROMIUM, LCS	528	500	UG/L	106
		COPPER, LCS	1310	1250	UG/L	104
		NICKEL, LCS	2090	2000	UG/L	105
		ANTIMONY, LCS	46	60	UG/L	76
		ZINC, LCS	1050	1000	UG/L	105

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
LCS1	AA	ARSENIC, LCS	32	30	UG/L	105
		LEAD, LCS	38	30	UG/L	126
		SELENIUM, LCS	33	30	UG/L	112
		THALLIUM, LCS	31	30	UG/L	103
LCS2	AA	ARSENIC, LCS	31	30	UG/L	102
		LEAD, LCS	40	30	UG/L	133
		SELENIUM, LCS	33	30	UG/L	109
		THALLIUM, LCS	30	30	UG/L	100

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
LCS1	HG1	MERCURY, LCS	2.0	2.0	UG/L	100
LCS2	HG1	MERCURY, LCS	2.1	2.0	UG/L	104

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0010	04-104-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	3.0	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	6.0	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	1780	UG/L	10
-0020	04-106-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	8.7	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	86	UG/L	10
		COPPER, TOTAL	3	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	22	UG/L	20
		LEAD, TOTAL	18	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	6.1	UG/L	2.0
		THALLIUM, TOTAL	6.5	UG/L	5.0
		ZINC, TOTAL	2970	UG/L	20

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0030	01-001-P003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	6.8	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	622	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	20	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	7.5	UG/L	5.0
		ZINC, TOTAL	96	UG/L	10
-0040	06-110-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	5.4	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	28	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	10	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	8.3	UG/L	5.0
		ZINC, TOTAL	2910	UG/L	20



WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	04-104-M003	SILVER, TOTAL	26	50	UG/L	52
		ARSENIC, TOTAL	36	40	UG/L	82
		BERYLLIUM, TOTAL	46	50	UG/L	92
		CADMIUM, TOTAL	46	50	UG/L	92
		CHROMIUM, TOTAL	190	200	UG/L	92
		COPPER, TOTAL	219	250	UG/L	88
		MERCURY, TOTAL	4.8	5.0	UG/L	96
		NICKEL, TOTAL	444	500	UG/L	91
		LEAD, TOTAL	21	20	UG/L	73
		ANTIMONY, TOTAL	78	100	UG/L	82
		SELENIUM, TOTAL	11	10	UG/L	96
		THALLIUM, TOTAL	21	50	UG/L	33
		ZINC, TOTAL	2170	500	UG/L	79

## WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	04-104-M003	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	3.0	3.6	18
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	5.0 u	NC
		CHROMIUM, TOTAL	10 u	10 u	NC
		COPPER, TOTAL	20 u	20 u	NC
		MERCURY, TOT	0.2 u	0.2 u	NC
		NICKEL, TOTAL	20 u	20 u	NC
		LEAD, TOTAL	6.0	7.8	26
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.0 u	2.0 u	NC
		THALLIUM, TOTAL	5.0 u	5.6	NC
		ZINC, TOTAL	1780	1780	0.28

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK1	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	10	u UG/L	10
BLANK2	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	10	u UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK1	AA	ARSENIC, TOTAL	3.3	UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
BLANK2	AA	ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-695

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2
BLANK2	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

## WESTON ANALYTICS

## INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	ICP	SILVER, LCS	27	60	UG/L	45
		BERYLLIUM, LCS	264	250	UG/L	106
		CADMIUM, LCS	17	16	UG/L	106
		CHROMIUM, LCS	522	500	UG/L	104
		COPPER, LCS	1300	1250	UG/L	104
		NICKEL, LCS	2090	2000	UG/L	104
		ANTIMONY, LCS	46	60	UG/L	76
		ZINC, LCS	1030	1000	UG/L	103
LCS2	ICP	SILVER, LCS	31	60	UG/L	52
		BERYLLIUM, LCS	262	250	UG/L	105
		CADMIUM, LCS	16	16	UG/L	100
		CHROMIUM, LCS	528	500	UG/L	106
		COPPER, LCS	1310	1250	UG/L	104
		NICKEL, LCS	2090	2000	UG/L	105
		ANTIMONY, LCS	46	60	UG/L	76
		ZINC, LCS	1050	1000	UG/L	105

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	AA	ARSENIC, LCS	32	30	UG/L	105
		LEAD, LCS	38	30	UG/L	126
		SELENIUM, LCS	33	30	UG/L	112
		THALLIUM, LCS	31	30	UG/L	103
LCS2	AA	ARSENIC, LCS	31	30	UG/L	102
		LEAD, LCS	40	30	UG/L	133
		SELENIUM, LCS	33	30	UG/L	109
		THALLIUM, LCS	30	30	UG/L	100

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	HG1	MERCURY, LCS	2.1	2.0	UG/L	105
LCS2	HG1	MERCURY, LCS	2.1	2.0	UG/L	105



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0010	01-007-P003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	12	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	6.3	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	7.1	UG/L	5.0
		ZINC, TOTAL	16	UG/L	10
-0020	01-009-P003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	19	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	50	UG/L	10
		COPPER, TOTAL	31	UG/L	20
		MERCURY, TOTAL	0.21	UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	10	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	46	UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0030	01-011-P003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	7.2	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.2	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	21	UG/L	10
-0040	01-010-P003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	20	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	20	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.9	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	16	UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0050	03-102-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	8.2	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	12	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.21	UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.9	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	40	UG/L	10
-0060	03-103-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	29	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	9.2	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	10	u UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/18/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0070	04-105-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	4.6	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.2	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	70	UG/L	10
-0080	04-105-M103	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	4.9	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	5.0	u UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	48	UG/L	10

WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	01-007-P003	SILVER, TOTAL	26	50	UG/L	52
		ARSENIC, TOTAL	51	40	UG/L	98
		BERYLLIUM, TOTAL	44	50	UG/L	88
		CADMIUM, TOTAL	44	50	UG/L	92
		CHROMIUM, TOTAL	191	200	UG/L	93
		COPPER, TOTAL	230	250	UG/L	92
		MERCURY, TOTAL	5.1	5.0	UG/L	102
		NICKEL, TOTAL	450	500	UG/L	93
		LEAD, TOTAL	25	20	UG/L	91
		ANTIMONY, TOTAL	71	100	UG/L	71
		SELENIUM, TOTAL	9.2	10	UG/L	102
		THALLIUM, TOTAL	18	50	UG/L	21
		ZINC, TOTAL	494	500	UG/L	96

WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	01-007-P003	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	12	13	4.9
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	5.0 u	NC
		CHROMIUM, TOTAL	10 u	10 u	NC
		COPPER, TOTAL	20 u	20 u	NC
		MERCURY, TOT	0.2 u	0.2 u	NC
		NICKEL, TOTAL	20 u	20 u	NC
		LEAD, TOTAL	6.3	5.7	10
		ANTIMONY, TOTAL	59	30 u	NC
		SELENIUM, TOTAL	2.0 u	2.0 u	NC
		THALLIUM, TOTAL	7.1	5.0 u	NC
		ZINC, TOTAL	16	26	48

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK1	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	10	u UG/L	10
BLANK2	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	10	u UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK1	AA	ARSENIC, TOTAL	3.3	UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
BLANK2	AA	ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-710

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK1	HG1	MERCURY, TOTAL	0.2	u UG/L	0.2
BLANK2	HG1	MERCURY, TOTAL	0.2	u UG/L	0.2

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	ICP	SILVER, LCS	27	60	UG/L	45
		BERYLLIUM, LCS	264	250	UG/L	106
		CADMIUM, LCS	17	16	UG/L	106
		CHROMIUM, LCS	522	500	UG/L	104
		COPPER, LCS	1300	1250	UG/L	104
		NICKEL, LCS	2090	2000	UG/L	104
		ANTIMONY, LCS	46	60	UG/L	76
		ZINC, LCS	1030	1000	UG/L	103
LCS2	ICP	SILVER, LCS	31	60	UG/L	52
		BERYLLIUM, LCS	262	250	UG/L	105
		CADMIUM, LCS	16	16	UG/L	100
		CHROMIUM, LCS	528	500	UG/L	106
		COPPER, LCS	1310	1250	UG/L	104
		NICKEL, LCS	2090	2000	UG/L	105
		ANTIMONY, LCS	46	60	UG/L	76
		ZINC, LCS	1050	1000	UG/L	105

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	ZRECOV
LCS1	AA	ARSENIC, LCS	32	30	UG/L	105
		LEAD, LCS	38	30	UG/L	126
		SELENIUM, LCS	33	30	UG/L	112
		THALLIUM, LCS	31	30	UG/L	103
LCS2	AA	ARSENIC, LCS	31	30	UG/L	102
		LEAD, LCS	40	30	UG/L	133
		SELENIUM, LCS	33	30	UG/L	109
		THALLIUM, LCS	30	30	UG/L	100

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	HG1	MERCURY, LCS	2.1	2.0	UG/L	105
LCS2	HG1	MERCURY, LCS	2.1	2.0	UG/L	105

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0030	02-101-M003	SILVER, TOTAL	24	UG/L	10
		ARSENIC, TOTAL	3.6	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	8.0	UG/L	5.0
		CHROMIUM, TOTAL	23	UG/L	10
		COPPER, TOTAL	35	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	38	UG/L	20
		LEAD, TOTAL	5.8	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	420	UG/L	10
-0040	01-004-P003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	14	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	27	UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	30	UG/L	20
		LEAD, TOTAL	5.0	u UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	10	u UG/L	10

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0050	02-101-M203	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.0	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	31	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	9.8	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	87	UG/L	10
-0060	03-102-M203	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.0	u UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	7.8	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	18	UG/L	10

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0010	05-107-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	3.4	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	12	UG/L	10
		COPPER, TOTAL	21	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	20	u UG/L	20
		LEAD, TOTAL	17	UG/L	5.0
		ANTIMONY, TOTAL	60	UG/L	30
		SELENIUM, TOTAL	4.0	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	1400	UG/L	10
-0020	05-108-M003	SILVER, TOTAL	10	u UG/L	10
		ARSENIC, TOTAL	2.6	UG/L	2.0
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	13	UG/L	5.0
		CHROMIUM, TOTAL	24	UG/L	10
		COPPER, TOTAL	23	UG/L	20
		MERCURY, TOTAL	0.2	u UG/L	0.2
		NICKEL, TOTAL	49	UG/L	20
		LEAD, TOTAL	6.8	UG/L	5.0
		ANTIMONY, TOTAL	30	u UG/L	30
		SELENIUM, TOTAL	2.1	UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
		ZINC, TOTAL	1050	UG/L	10

## WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	05-107-M003	SILVER, TOTAL	41	50	UG/L	110
		ARSENIC, TOTAL	37	40	UG/L	83
		BERYLLIUM, TOTAL	48	50	UG/L	96
		CADMIUM, TOTAL	57	50	UG/L	106
		CHROMIUM, TOTAL	211	200	UG/L	100
		COPPER, TOTAL	276	250	UG/L	102
		NICKEL, TOTAL	522	500	UG/L	102
		LEAD, TOTAL	28	20	UG/L	58
		ANTIMONY, TOTAL	0.0	100	UG/L	0.0
		SELENIUM, TOTAL	11	10	UG/L	73
		THALLIUM, TOTAL	27	50	UG/L	55
		ZINC, TOTAL	2000	500	UG/L	120
-0040	01-004-P003	SILVER, TOTAL	29	50	UG/L	58
		ARSENIC, TOTAL	54	40	UG/L	100
		BERYLLIUM, TOTAL	43	50	UG/L	90
		CADMIUM, TOTAL	43	50	UG/L	80
		CHROMIUM, TOTAL	224	200	UG/L	99
		COPPER, TOTAL	226	250	UG/L	92
		MERCURY, TOTAL	5.0	5.0	UG/L	100
		NICKEL, TOTAL	537	500	UG/L	101
		LEAD, TOTAL	16	20	UG/L	68
		ANTIMONY, TOTAL	96	100	UG/L	92
		SELENIUM, TOTAL	8.2	10	UG/L	98
		THALLIUM, TOTAL	25	50	UG/L	49
		ZINC, TOTAL	509	500	UG/L	100



## WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	05-107-M003	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	3.4	3.3	3.0
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	5.0 u	NC
		CHROMIUM, TOTAL	12	11	8.7
		COPPER, TOTAL	21	20	4.9
		NICKEL, TOTAL	20 u	20 u	NC
		LEAD, TOTAL	17	16	4.9
		ANTIMONY, TOTAL	60	30 u	NC
		SELENIUM, TOTAL	4.0	3.0	29
		THALLIUM, TOTAL	5.0 u	5.0 u	NC
		ZINC, TOTAL	1400	1420	1.2
-0040	01-004-P003	SILVER, TOTAL	10 u	10 u	NC
		ARSENIC, TOTAL	14	13	5.8
		BERYLLIUM, TOTAL	2.0 u	2.0 u	NC
		CADMIUM, TOTAL	5.0 u	7.0	NC
		CHROMIUM, TOTAL	27	34	23
		COPPER, TOTAL	20 u	20 u	NC
		MERCURY, TOT	0.2 u	0.2 u	NC
		NICKEL, TOTAL	30	78	89
		LEAD, TOTAL	5.0 u	5.0 u	NC
		ANTIMONY, TOTAL	30 u	30 u	NC
		SELENIUM, TOTAL	2.0 u	2.0 u	NC
		THALLIUM, TOTAL	5.0 u	5.0 u	NC
		ZINC, TOTAL	10 u	12	NC

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK1	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	38	UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	14	UG/L	10
BLANK1	AA	ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/09/87

CLIENT: LUKE AFB

WESTON BATCH #: 8702-724

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE =====	SITE ID =====	ANALYTE =====	SPIKED SAMPLE =====	SPIKED AMOUNT =====	UNITS =====	%RECOV =====
LCS1	HG1	MERCURY, LCS	2.0	2.0	UG/L	102
LCS1		SILVER, LCS	30	60	UG/L	50
		BERYLLIUM, LCS	258	250	UG/L	103
		CADMIUM, LCS	12	16	UG/L	75
		CHROMIUM, LCS	506	500	UG/L	101
		COPPER, LCS	1280	1250	UG/L	102
		NICKEL, LCS	1990	2000	UG/L	100
		ANTIMONY, LCS	60	60	UG/L	99
		ZINC, LCS	1020	1000	UG/L	102

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/09/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
LCSI	AA	ARSENIC, LCS	32	30	UG/L	106
		LEAD, LCS	30	30	UG/L	99
		SELENIUM, LCS	31	30	UG/L	102
		THALLIUM, LCS	34	30	UG/L	112

**WESTON**

VOC and DBCP Results

Water

Resampling

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-880

Client: LUKE AFB

Page: 1

Sample Information	Cust ID: 01004P004		01007P004		01007P004		01007P004		01009P004		01010P004	
	RFW#:	0010	0020	0020 DUP	0020 MS	0030	0040	Matrix:	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1	Units:	ug/l	ug/l	ug/l	ug/l
Units:	fl	fl	fl	fl	fl	fl	fl					
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 J	4 U	4 U	4 U	4 U	4 U	4 U		4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U		10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U		10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U		2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U		10 U	10 U	10 U	10 U

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RFW Batch Number: 8703-880      Client: LUKE AFB      Page: 1
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Cust ID: 01004P004 01007P004 01007P004 01007P004 01009P004 01010P004
RFW#: 0010 0020 0020 DUP 0020 MS 0030 0040
=====fl=====fl=====fl=====fl=====fl=====
Tetrachloroethene..... 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U
1,1,2,2-Tetrachloroethane..... 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U
Toluene..... 0.5 U 0.5 U 96 % 0.5 U 0.5 U 0.5 U
Chlorobenzene..... 0.5 U 0.5 U 99 % 0.5 U 0.5 U 0.5 U
Ethylbenzene..... 0.5 U 0.5 U NA 0.5 U 0.5 U 0.5 U
Styrene..... NA 0.5 U NA NA NA NA
Total Xylenes..... 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U
1,2-Dichlorobenzene..... 1 U 1 U 1 U 1 U 1 U 1 U
1,3-Dichlorobenzene..... 1 U 1 U 1 U 1 U 1 U 1 U
1,4-Dichlorobenzene..... 1 U 1 U 1 U 1 U 1 U 1 U
Trichlorofluoromethane..... 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U
Dichlorodifluoromethane..... 1 U 1 U 1 U 1 U 1 U 1 U
=====

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U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-880 Client: LUKE Page: 2

Sample Information	Cust ID: 02004E001	02101M004	02101M004	05107M004	05108M004	06109M004
RFW#:	0050	0060	0070	0080	0090	0100
Matrix:	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
	fl	fl	fl	fl	fl	fl
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	150	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	2.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	43	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8703-880

Client: LUKE

Page: 2

Cust ID: 02004E001 02101M004 02101M104 05107M004 05108M004 06109M004  
RFW#: 0050 0060 0070 0080 0090 0100

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	2.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	5.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-880 Client: LUKE AFB Page: 3

Sample Information	Cust ID:	06110M004	06111M004	FBI-EFF	FB2-101	FB3-107	FB4-108
RFW#:	0110	0120	0130	0140	0150		
Matrix:	Water	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	10 U	10 U	56	59	53	65	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8703-880 Client: LUKE AFB Page: 3

Cust ID: 06110M004 06111M004 FB1-EFF FB2-101 FB3-107 FB4-108  
 RFW#: 0110 0120 0130 0140 0150 0160

	0110	0120	0130	0140	0150	0160
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-880      Client: LUKE AFB      Page: 4

Sample Information	Cust ID: FB5-109		02004E002		FB6-EFF		TRIP BLANK		BLANK		B.S.	
	RFW#: 0170	Water	0180	Water	0190	Water	0200	Water	BLANK	Water	B.S.	Water
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	NRP
Acetone.....	53	120	NA	66	NA	66	10 U	10 U	10 U	10 U	10 U	NRP
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	97 %
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	30	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	85 %
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	114 %
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NRP
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NRP

Client: LUKE AFB

RFW Batch Number: 8703-880

	Cust ID:	FB5-109	02004E002	FB6-EFF	TRIP	BLANK	BLANK	B.S.
RFW#:	0170	0180	0190	0200	BLANK	BLANK	B.S.	
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP	
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP	
Toluene.....	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	119 %	
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	99 %	
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP	
Styrene.....	NA	NA	NA	NA	NA	NA	NA	
Total Xylenes.....	0.5 U	5.1	0.5 U	0.5 U	0.5 U	0.5 U	NRP	
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP	
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP	
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP	
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NRP	
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	NRP	

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-880      Client: LUKE AFB      Page: 5

Sample Information      Cust ID: BLANK      B.S. 02004E001  
 RFW#: BLANK      B.S. 0050 DUP  
 Matrix: Water      Water  
 D.F.: 1  
 Units: ug/l      ug/l

Compound	Units	ug/l	ug/l	ug/l	ug/l
Chloromethane	1 U	NRP	1 U	fl	fl
Bromomethane	1 U	NRP	1 U	fl	fl
Vinyl Chloride	0.5 U	NRP	0.5 U	fl	fl
Chloroethane	0.5 U	NRP	0.5 U	fl	fl
Methylene Chloride	4 U	NRP	4 U	fl	fl
Acetone	10 U	NRP	190	fl	fl
Carbon Disulfide	NA	NA	NA	fl	fl
1,1-Dichloroethene	0.5 U	103 %	0.5 U	fl	fl
1,1-Dichloroethane	0.5 U	NRP	0.5 U	fl	fl
Trans-1,2-Dichloroethene	0.5 U	NRP	0.5 U	fl	fl
Chloroform	0.5 U	NRP	1.9	fl	fl
1,2-Dichloroethane	0.5 U	NRP	0.5 U	fl	fl
2-Butanone	10 U	NRP	49	fl	fl
1,1,1-Trichloroethane	0.5 U	NRP	0.5 U	fl	fl
Carbon Tetrachloride	0.5 U	NRP	0.5 U	fl	fl
Bromodichloromethane	0.5 U	NRP	0.5 U	fl	fl
1,2-Dichloropropane	0.5 U	NRP	0.5 U	fl	fl
Trans-1,3-Dichloropropene	0.5 U	NRP	0.5 U	fl	fl
Trichloroethene	0.5 U	85 %	0.5 U	fl	fl
Dibromochloromethane	0.5 U	NRP	0.5 U	fl	fl
1,1,2-Trichloroethane	0.5 U	NRP	0.5 U	fl	fl
Benzene	0.5 U	112 %	0.5 U	fl	fl
cis-1,3-Dichloropropene	0.5 U	NRP	0.5 U	fl	fl
2-Chloroethylvinylether	1 U	NRP	1 U	fl	fl
Bromoform	2 U	NRP	2 U	fl	fl
4-Methyl-2-pentanone	10 U	NRP	10 U	fl	fl

	Cust ID:	BLANK	B.S.	02004E001
	RFW#:	BLANK	B.S.	0050 DUP
Tetrachloroethene.....	0.5 U	NRP		0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	NRP		0.5 U
Toluene.....	0.5 U	117 %		2.4
Chlorobenzene.....	0.5 U	99 %		0.5 U
Ethylbenzene.....	0.5 U	NRP		0.5 U
Styrene.....	NA	NA		NA
Total Xylenes.....	0.5 U	NRP		4.9
1,2-Dichlorobenzene.....	1 U	NRP		1 U
1,3-Dichlorobenzene.....	1 U	NRP		1 U
1,4-Dichlorobenzene.....	1 U	NRP		1 U
Trichlorofluoromethane.....	0.5 U	NRP		0.5 U
Dichlorodifluoromethane.....	1 U	NRP		1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.



WESTON Analytics  
LUKE AFB  
RFWBN: 8703-880, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15      Analysis Date: 03-19-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

C. P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

3-23-87  
DATE

WESTON Analytics

LUKE AFB

RFWBN: 8703-880, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Date: 03-11-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>		<u>2nd COLUMN RESULTS</u>
8703-880-0050	CHLOROFORM	2.3	ug/l	YES
	TOLUENE	2.7	ug/l	YES
	XYLENE	5.6	ug/l	YES
	ACETONE	150	ug/l	YES
	MEK	43	ug/l	YES
8703-880-0130	ACETONE	56	ug/l	YES
8703-880-0140	ACETONE	59	ug/l	YES
8703-880-0150	ACETONE	53	ug/l	YES
8703-880-0160	ACETONE	65	ug/l	YES
8703-880-0170	ACETONE	53	ug/l	YES
8703-880-0180	TOLUENE	2.8	ug/l	YES
	XYLENE	5.1	ug/l	YES
	ACETONE	120	ug/l	YES
	MEK	30	ug/l	NO
8703-880-0190	ACETONE	66	ug/l	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-898 Client: LUKE AFB Page: 1

Sample Information	Cust ID: 02004E003	02004E004	FB7-EFF 0030	FB7-EFF 0030 DUP	FB7-EFF 0030 MS	FB8-EFF 0040
	Water	Water	Water	Water	Water	Water
D.F.:	1	1	1	1	1	1
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane.....	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride.....	4 U	4 U	4 U	4 U	4 U	4 U
Acetone.....	60	36	52	47	51	47
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone.....	10 U	10 U	17	16	23	17
1,1,1-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chloroethylvinylether.....	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform.....	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone.....	10 U	10 U	10 U	10 U	10 U	10 U

RFW Batch Number: 8703-898

Client: LUKE AFB

Page: 1

Cust ID: 02004E003 02004E004 FB7-EFF FB7-EFF FB7-EFF FB8-EFF  
RWF#: 0010 0020 0030 0030 DUP 0030 MS 0040

Tetrachloroethene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene.....	2.4	0.5 U	0.5 U	0.5 U	95 %	0.5 U	0.5 U
Chlorobenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	89 %	0.5 U	0.5 U
Ethylbenzene.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	3.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane.....	1 U	1 U	1 U	1 U	1 U	1 U	1 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8703-898      Client: LUKE AFB      Page: 2

Sample Information	Cust ID: TRIP BLANK	BLANK	B.S.
RFW#: 0050	BLANK	B.S.	B.S.
Matrix: Water	Water	Water	Water
D.F.: 1	1	1	1
Units: ug/l	ug/l	ug/l	ug/l
Chloromethane.....	1 U	1 U	NRP
Bromomethane.....	1 U	1 U	NRP
Vinyl Chloride.....	0.5 U	0.5 U	NRP
Chloroethane.....	0.5 U	0.5 U	NRP
Methylene Chloride.....	4 U	4 U	NRP
Acetone.....	38	10 U	NRP
Carbon Disulfide.....	NA	NA	NA
1,1-Dichloroethene.....	0.5 U	0.5 U	112 %
1,1-Dichloroethane.....	0.5 U	0.5 U	NRP
Trans-1,2-Dichloroethene.....	0.5 U	0.5 U	NRP
Chloroform.....	0.5 U	0.5 U	NRP
1,2-Dichloroethane.....	0.5 U	0.5 U	NRP
2-Butanone.....	10 U	10 U	NRP
1,1,1-Trichloroethane.....	0.5 U	0.5 U	NRP
Carbon Tetrachloride.....	0.5 U	0.5 U	NRP
Bromodichloromethane.....	0.5 U	0.5 U	NRP
1,2-Dichloropropane.....	0.5 U	0.5 U	NRP
Trans-1,3-Dichloropropene.....	0.5 U	0.5 U	NRP
Trichloroethene.....	0.5 U	0.5 U	91 %
Dibromochloromethane.....	0.5 U	0.5 U	NRP
1,1,2-Trichloroethane.....	0.5 U	0.5 U	NRP
Benzene.....	0.5 U	0.5 U	109 %
cis-1,3-Dichloropropene.....	0.5 U	0.5 U	NRP
2-Chloroethylvinylether.....	1 U	1 U	NRP
Bromoform.....	2 U	2 U	NRP
4-Methyl-2-pentanone.....	10 U	10 U	NRP

RFW Batch Number: 8703-898

Client: LUKE AFB

Page: 2

Cust ID: TRIP BLANK  
RFW#: 0050

B.S.  
B.S.

BLANK  
BLANK

	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.5 U	0.5 U	0.5 U		
1,1,2,2-Tetrachloroethane.....	0.5 U	0.5 U	0.5 U		
Toluene.....	0.5 U	0.5 U	0.5 U		
Chlorobenzene.....	0.5 U	0.5 U	0.5 U		114 %
Ethylbenzene.....	0.5 U	0.5 U	0.5 U		102 %
Styrene.....	NA	NA	NA		NRP
Total Xylenes.....	0.5 U	0.5 U	0.5 U		NA
1,2-Dichlorobenzene.....	1 U	1 U	1 U		NRP
1,3-Dichlorobenzene.....	1 U	1 U	1 U		NRP
1,4-Dichlorobenzene.....	1 U	1 U	1 U		NRP
Trichlorofluoromethane.....	0.5 U	0.5 U	0.5 U		NRP
Dichlorodifluoromethane.....	1 U	1 U	1 U		NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON Analytics

LUKE AFB

RFWBN: 8703-898, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 03-19-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

*C. P. Nulton*  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

3-23-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8703-898, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15                      Analysis Date: 03-19-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>		<u>2nd COLUMN RESULTS</u>
8703-898-0010	TOLUENE	2.4	ug/l	NO
	XYLENE	3.5	ug/l	NO
	ACETONE	60	ug/l	YES
8703-898-0020	ACETONE	36	ug/l	YES
8703-898-0030	ACETONE	52	ug/l	YES
	MEK	17	ug/l	*
8703-898-0040	ACETONE	47	ug/l	YES
	MEK	17	ug/l	*
8703-898-0050	ACETONE	38	ug/l	YES

\* BELOW DETECTION FOR SECOND COLUMN DL = 20



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

=====  
RfW Batch Number: 8703-880      Client: LUKE AFB      Page: 1  
=====

Sample Information  
=====  
Cust ID: 01004P004    01007P004    01009P004    01010P004    BLANK  
RfW#:    0010            0020            0030            0040  
Matrix:    Water            Water            Water            Water  
D.F.:      1                1                1                1  
Units:     ug/l          ug/l            ug/l            ug/l  
=====  
Dibromochloropropane.....      20 U      20 U      20 U      20 U      20 U  
=====fl=====fl=====fl=====fl

U=Analyzed, not detected. B=Present in blank.    NRP=Not Reported  
NR=Not requested.



VOC Results

Soil

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Sample Information	Cust ID:	0303B005	0303B010	0303B015	0303B025	0303B040	0303B080	Page:
	RFW#:	0010	0020	0030	0040	0050	0060	
	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
	D.F.:	1	1	1	1	1	1	
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
		fl	fl	fl	fl	fl	fl	
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA	NA

	Cust ID: 0303B005	0303B010	0303B015	0303B025	0303B040	0303B080
RFW#:	0010	0020	0030	0040	0050	0060
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-004- Client: LUKE AFB Page: 2

Sample Information	Cust ID: 0303B098	0302B075	0302B098	0303B110	0303B060	0401B005
	RFW#: 0070	0080	0090	0100	0110	0120
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA

	Cust ID:	RFW#:	0303B098	0302B075	0302B098	0303B110	0303B060	0401B005
			0070	0080	0090	0100	0110	0120
Tetrachloroethene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....			NA	NA	NA	NA	NA	NA
Total Xylenes.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-004-

Client: LUKE AFB

Page:

Sample Information	Cust ID:	0401B010	0401B020	0401B025	0401B035	0401B045	0401B055
	RFW#:	0130	0150	0160	0170	0180	0190
	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
	D.F.:	1	1	1	1	1	1
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		fl	fl	fl	fl	fl	fl
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		NA	NA	NA	NA	NA	NA

=====  
 RFW Batch Number: 8610-004- Client: LUKE AFB Page:  
 =====

	Cust ID:	0401B010	0401B020	0401B025	0401B035	0401B045	0401B055
RFW#:	0130	0150	0160	0170	0180	0190	
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-004- Client: LUKE AFB Page: 4

Sample Information	Cust ID: 0401B070		BLANK		BLNK SPK		BLANK		BLNK SPK		BLANK		BLNK SPK	
	RFW#: 0200	Soil	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Matrix: Soil	1	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
D.F.:	1	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Units:	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride...	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone...	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide...	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone...	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane...	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene...	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether...	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform...	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone...	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-004- Client: LUKE AFB Page: 4

	Cust ID: 0401B070	BLANK	BLANK SPK	BLANK	BLANK SPK	BLANK	BLANK SPK	BLANK	BLANK SPK
	RFW#: 0200	BLANK	BLANK SPK	BLANK	BLANK SPK	BLANK	BLANK SPK	BLANK	BLANK SPK
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

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RWF Batch Number: 8610-004- Client: LUKE AFB Page: 5  
=====

Sample Information  
Cust ID: BLNK SPK  
RWF#: BLNK SPK  
Matrix: Soil  
D.F.: 1  
Units: mg/kg

Sample Information	Units	mg/kg	fl	fl	fl	fl
Chloromethane.....	0.001	U				
Bromomethane.....	0.001	U				
Vinyl Chloride.....	0.001	U				
Chloroethane.....	0.001	U				
Methylene Chloride.....	0.004	U				
Acetone.....	NA					
Carbon Disulfide.....	NA					
1,1-Dichloroethene.....	0.001	U				
1,1-Dichloroethane.....	0.001	U				
Trans-1,2-Dichloroethene.....	0.001	U				
Chloroform.....	116	%				
1,2-Dichloroethane.....	0.001	U				
2-Butanone.....	NA					
1,1,1-Trichloroethane.....	0.001	U				
Carbon Tetrachloride.....	0.001	U				
Bromodichloromethane.....	0.001	U				
1,2-Dichloropropane.....	0.001	U				
Trans-1,3-Dichloropropene.....	0.001	U				
Trichloroethene.....	119	%				
Dibromochloromethane.....	0.002	U				
1,1,2-Trichloroethane.....	0.001	U				
Benzene.....	0.001	U				
cis-1,3-Dichloropropene.....	0.001	U				
2-Chloroethylvinylether.....	0.002	U				
Bromoform.....	0.004	U				
4-Methyl-2-pentanone.....	NA					

=====  
RFW Batch Number: 8610-004- Client: LUKE AFB Page: 5  
=====

Cust ID: BLNK SPK  
RFW#: BLNK SPK

Tetrachloroethene.....	0.001 U	fl	fl	fl
1,1,2,2-Tetrachloroethane.....	0.001 U			
Toluene.....	0.001 U			
Chlorobenzene.....	110 %			
Ethylbenzene.....	0.001 U			
Styrene.....	NA			
Total Xylenes.....	0.001 U			
1,2-Dichlorobenzene.....	0.001 U			
1,3-Dichlorobenzene.....	0.001 U			
1,4-Dichlorobenzene.....	0.001 U			
Trichlorofluoromethane.....	0.001 U			
Dichlorodifluoromethane.....	0.001 U			

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
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WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-019

Client: LUKE AFB

Page:

Sample Information	Cust ID:	0402B070	0402B083	0402B100	0402B101	0401B075	0401B098
RFW#:	0020	0030	0070	0080	0100	0110	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-019 Client: LUKE AFB Page:

Cust ID:	0402B070	0402B083	0402B100	0402B101	0401B075	0401B098
RFW#:	0020	0030	0070	0080	0100	0110
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-019 Client: LUKE AFB Page:

Sample Information	Cust ID:	0401B198	0402B005	0402B010	0402B015	0402B025	0402B035
RFW#:	0130	0140	0150	0160	0180	0190	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-019 Client: LUKE AFB

	Cust ID: 0401B198	0402B005	0402B010	0402B015	0402B025	0402B035
RFW#:	0130	0140	0150	0160	0180	0190
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-019 Client: LUKE AFB Page: 3

Sample Information	Cust ID:	0402B045	0402B060	0403B005	0403B015	0403B010	0403B020
RFW#:	0200	0210	0220	0230	0240	0250	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	10	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-019

Client: LUKE AFB

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Cust ID:	0402B045	0402B060	0403B005	0403B015	0403B010	0403B020
RFW#:	0200	0210	0220	0230	0240	0250
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.142	0.001 U	0.003	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.008	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	120	0.001 U	0.06	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

60-119

SAMPLE 0020 IS A MIXTURE OF COMPLEX HC'S

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-019 Client: LUKE AFB Page: 1

Cust ID: 0403B025 0403B035 0403B045 0403B060 0403B075 0403B125  
 RFW#: 0260 0270 0280 0290 0300 0320  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1

Sample Information	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride	0.001 U		0.001 U	*	0.001 U	*	0.001 U	*	0.001 U	*
Chloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone	NA		NA		NA		NA		NA	
Carbon Disulfide	NA		NA		NA		NA		NA	
1,1-Dichloroethene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone	NA		NA		NA		NA		NA	
1,1,1-Trichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone	NA		NA		NA		NA		NA	

RFW Batch Number: 8610-019 Client: LUKE AFB Page: 4

Cust ID:	0403B025	0403B035	0403B045	0403B060	0403B075	0403B125
RFW#:	0260	0270	0280	0290	0300	0320
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.006	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.007	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

\* COELUTION OF VINYL CHLORIDE AND DICHLOROFLOROMETHANE-WILL CONFIRM ON SECOND COLUMN

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-019      Client: LUKE AFB      Page: 5

Sample Information	Cust ID:	BLANK		BS		BLANK		BS	
		mg/kg	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	96 %	0.004 U	96 %	0.004 U	0.004 U	0.004 U	0.004 U	116 %
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	99 %	0.001 U	99 %	0.001 U	0.001 U	0.001 U	0.001 U	106 %
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	103 %	0.001 U	103 %	0.001 U	0.001 U	0.001 U	0.001 U	106 %
Trichloroethene.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibromochloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA

=====  
 RFW Batch Number: 861C-019      Client: LUKE AFB      Page: 5  
 =====

Cust ID: RFP#:	BLANK		BS		BLANK		BS		BLANK		BS	
	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlenezes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON Analytics

LUKE AFB

RFWBN: 8610-019, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15 Analysis Dates: 10-23,24,25-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons. Analysis of samples containing high levels of aromatics was also performed by an extraction (5 gram to 5 ml dichloroethane) followed by analysis on a DB-5 capillary column.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Please note that vinyl chloride and dichlorofluoromethane co-elute on the primary column. Neither confirms the second column. This is probably due to dichlorofluoromethane arising from laboratory contamination since it is used as the oil and grease extraction solvent.

Carter P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

1-28-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8610-019, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-019-0220	Toluene	0.14 mg/kg	YES
	Xylene	120 mg/kg	YES
8610-019-0240	Toluene	0.003 mg/kg	YES
	Ethylbenzene	0.008 mg/kg	NO
	Xylene	0.060 mg/kg	YES
8610-019-0280	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-019-0290	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
	Dibromochloro- methane	0.002 mg/kg	NO
	Toluene	0.006 mg/kg	YES
	Xylene	0.007 mg/kg	NO
8610-019-0300	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-019-0320	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-024 Client: LUKE AFB Page: 1

Sample Information	Cust ID:	RFW#:	Matrix:	D.F.:	Units:	0404B005		0404B010		0404B015		0404B020		0404B025		0404B040	
						mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....			Soil	1	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....			Soil	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....			Soil	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....			Soil	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....			Soil	1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....			Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....			Soil	1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....			Soil	1	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....			Soil	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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 RFW Batch Number: 8610-024                      Client:    LUKE AFB                      Page:  
 =====

	Cust ID:	0404B005	0404B010	0404B015	0404B020	0404B025	0404B040
RFW#:	0010	0020	0030	0040	0050	0060	
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-024      Client: LUKE AFB      Page: 2

Sample Information	Cust ID:	0404B045	0404B060	0404B160	0405B005	0405B010	0405B015
RFW#:	0080	0090	0100	0110			
Matrix:	Soil	Soil	Soil	Soil			
D.F.:	1	1	1	1			
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	fl	fl	fl	fl	fl	fl	fl
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

	Cust ID: 0404B045	0404B060	0404B160	0405B005	0405B010	0405B015
RFW#:	0080	0090	0100	0110	0120	0130
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Client: LUKE AFB

PAGE

RFW Batch Number: 8610-024

Cust ID: 05-B020 0405B025 0405B035 0405B045 0405B060 0403B095  
 RFW#: 0140 0150 0160 0170 0180 0200  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1  
 Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

Sample Information	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA

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 RFW Batch Number: 8610-024      Client: LUKE AFB      PAGE 3  
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Cust ID: 05-B020    0405B025    0405B035    0405B045    0405B060    0403B095  
 RFW#:    0140            0150            0160            0170            0180            0200

	0140	0150	0160	0170	0180	0200
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

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RWF Batch Number: 8610-024      Client: LUKE AFB      PAGE 4  
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Sample Information	Cust ID: 0405B160		BLANK		BS		BLANK		BS		BLANK	
	RFW#:	0210	BLANK	BLANK	BS	BS	BLANK	BLANK	BS	BS	BLANK	BLANK
Matrix:	Soil	1	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1		1	1	1	1	1	1	1	1	1	1
Units:	mg/kg	fl	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		fl		fl	fl	fl	fl	fl	fl	fl	fl	fl
Chloromethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U		0.001 U	0.001 U	93 %	93 %	0.001 U	0.001 U	99 %	99 %	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U		0.001 U	0.001 U	96 %	96 %	0.001 U	0.001 U	97 %	97 %	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	92 %	92 %	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	83 %	83 %	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	Cust ID: 0405B160	BLANK	BS	BLANK	BS	BLANK	BS	BLANK	BS
	RFW#: 0210	BLANK	BS	BLANK	BS	BLANK	BS	BLANK	BS
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	95 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-024 Client: LUKE AFB Page: 5

Sample Information	Cust ID:	BS	0404B025	0404B025	mg/kg	fl	mg/kg	fl	mg/kg	fl
	RFW#:	BS	0050-D	0050-MS	Soil	1	Soil	1	Soil	1
	Matrix:	Soil	Soil	Soil	mg/kg	fl	mg/kg	fl	mg/kg	fl
	D.F.:	1	1	1	mg/kg	fl	mg/kg	fl	mg/kg	fl
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		100 %	100 %	100 %	59 %	59 %	59 %	59 %	59 %	59 %
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		97 %	97 %	97 %	38 %	38 %	38 %	38 %	38 %	38 %
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		97 %	97 %	97 %	27 %	27 %	27 %	27 %	27 %	27 %
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		90 %	90 %	90 %	24 %	24 %	24 %	24 %	24 %	24 %
4-Methyl-2-pentanone.....		NA	NA	NA	NA	NA	NA	NA	NA	NA

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 RFW Batch Number: 8610-024      Client: LUKE AFB      Page:  
 =====

Cust ID:      BS    0404B025    0404B025  
 RFW#:        BS    0050-D     0050-MS

	BS	0404B025	0404B025	0050-D	0050-MS
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-047- Client: LUKE AFB Page: 1

Sample Information	Cust ID:	0405B080	0406B005	0406B010	0406B015	0406B020	0406B025
RFW#:	0010	0020	0030	0040	0050	0060	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	*	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-047- Client: LUKE AFB Page: 1

	Cust ID: 0405B080	0406B005	0406B010	0406B015	0406B020	0406B025
RFW#:	0010	0020	0030	0040	0050	0060
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

\* COELUTION OF VINYL CHLORIDE AND DICHLOROFLUOROMETHANE-WILL CONFIRM ON SECOND COLUMN

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-047- Client: LUKE AFB Page: 2

Sample Information	Cust ID:	0406B035	0406B045	0406B060	0406B080	0406B098	0406B120
RFW#:	0070	0080	0090	0100	0110	0120	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

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 RFW Batch Number: 8610-047- Client: LUKE AFB Page: 2  
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	Cust ID: 0406B035	0406B045	0406B060	0406B080	0406B098	0406B120
RFW#:	0070	0080	0090	0100	0110	0120
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.008	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-047-

Client: LUKE AFB

Page:

Sample Information	Cust ID:	0407B005	0407B010	0407B015	0407B020	0407B025	0407B035
RFW#:	0130	0140	0150	0160	0170	0180	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-047- Client: LUKE AFB Page:

	Cust ID: 0407B005	0407B010	0407B015	0407B020	0407B025	0407B035
RFW#:	0130	0140	0150	0160	0170	0180
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8510-047- Client: LUKE AFB

Sample Information	Cust ID: 0407B045		0407B145		LAB DUP		MTRX SPK		0405B095		0404B080	
	RFW#:	0190	0200	0200	0200	0200	0200	0200	0210	0210	0220	0220
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	108 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	85 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	62 %	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	56 %	0.002 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8510-047-	Client: LUKE AFB	Page:			
Cust ID: 0407B045	0407B145	LAB DUP	MTRX SPK	0405B095	0404B080
RFW#:	0190	0200	0200	0210	0220
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-047-

Client: LUKE AFB

Sample Information	Cust ID: 0404B100	BLANK		BLNK SPK		BLANK		BLNK SPK	
		RFW#: 0230	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	100 %	0.001 U	0.001 U	0.001 U	107 %
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	97 %	0.001 U	0.001 U	0.001 U	101 %
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	97 %	0.002 U	0.002 U	0.002 U	96 %
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	90 %	0.004 U	0.004 U	0.004 U	82 %
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-047- Client: LUKE AFB Page:

	Cust ID: 0404B100	RFW#: 0230	BLANK		BLNK SPK		BLANK		BLNK SPK	
			BLANK	BLNK SPK	BLANK	BLNK SPK	BLANK	BLNK SPK		
Tetrachloroethene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,1,2,2-Tetrachloroethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Toluene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Chlorobenzene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Ethylbenzene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Styrene.....	NA		NA	NA	NA	NA	NA	NA	NA	
Total Xylenes.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,2-Dichlorobenzene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,3-Dichlorobenzene.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,4-Dichlorobenzenes.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Trichlorofluoromethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Dichlorodifluoromethane.....	0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON Analytics

LUKE AFB

RFWBN: 8610-047, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Dates: 11-24,25-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Please note that vinyl chloride and dichlorofluoromethane co-elute on the primary column. Neither confirms the second column. This is probably due to dichlorofluoromethane arising from laboratory contamination since it is used as the oil and grease extraction solvent.

Carter P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

1-28-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8610-047, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-047-0040	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-047-0090	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
	Chloroform	0.001 mg/kg	NO
	Benzene	0.003 mg/kg	NO
8610-047-0110	Chloroform	0.003 mg/kg	YES
	Trichloroethene	0.003 mg/kg	YES
	Benzene	0.006 mg/kg	NO
	Toluene	0.008 mg/kg	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8610-056 Client: LUKE AFB Page: 0408B045

Sample Information	Cust ID:	0408B005	0408B010	0408B015	0408B020	0408B025	0408B045
RFW#:	0010	0020	0030	0040	0050		0070
Matrix:	Soil	Soil	Soil	Soil	Soil		Soil
D.F.:	1	1	1	1	1		1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

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 RFW Batch Number: 8610-056      Client: LUKE AFB      Page:  
 =====

Cust ID: 0408B005    0408B010    0408B015    0408B020    0408B025    0408B045  
 RFW#:            0010            0020            0030            0040            0050            0070

	0408B005	0408B010	0408B015	0408B020	0408B025	0408B045
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

Sample Information	0408B050	0408B060	0408B075	0408B095	0408B110	0409B005
	Cust ID: 0408B050	0408B060	0408B075	0408B095	0408B110	0409B005
	0080	0090	0100	0110	0120	0130
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	fl	fl	fl	fl	fl	fl
	U	U	U	U	U	U
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA

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 RFW Batch Number: 8610-056      Client: LUKE AFB      Page: 2  
 =====

	Cust ID: 0408B050	0408B060	0408B075	0408B095	0408B110	0409B005
RFW#:	0080	0090	0100	0110	0120	0130
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

\* COELLUTION OF VINYL CHLORIDE AND DICHLOROFLOROMETHANE - WILL CONFIRM IDENTITY ON SECOND COLUMN

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8610-056      Client: LUKE AFB      Page: 1

Sample Information	Cust ID:	0409B010	0409B015	0409B020	0409B025	0409B035	0409B050
Matrix:	RFW#:	0140	0150	0160	0170	0180	0190
D.F.:	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
Units:	D.F.:	1	1	1	1	1	1
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		*	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-056 Client: LUKE AFB Page:

	Cust ID: 0409B010	0409B015	0409B020	0409B025	0409B035	0409B050
RFW#:	0140	0150	0160	0170	0180	0190
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	*					

\* COELUTION OF VINYL CHLORIDE AND DICHLOROFLOROMETHANE - WILL CONFIRM IDENTITY ON SECOND COLUMN.

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8610-056      Client: LUKE AFB      Page: 1

Sample Information	Cust ID:	0407B060	0407B080	0407B100	0304B005	0304B010	0304B015
RFW#:	0200	0210	0220	0230	0240	0250	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-056

Client: LUKE AFB

Page:

	Cust ID: 0407B060	0407B080	0407B100	0304B005	0304B010	0304B015
RFW#:	0200	0210	0220	0230	0240	0250
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE HAZARDOUS SUBSTANCE LIST COMPOUNDS

RFW Batch Number: 8610-056      Client: LUKE AFB

Cust ID: 0304B020      BLANK      BS      BLANK      BS  
 RFW#: 0260      BLANK      BS      BLANK      BS  
 Matrix: Soil      Soil      Soil      Soil      Soil  
 D.F.: 1      1      1      1      1  
 Units: mg/kg      mg/kg      mg/kg      mg/kg      mg/kg

Sample Information	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	72 %
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	86 %
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	99 %
Dibromochloromethane	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	94 %
cis-1,3-Dichloropropene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 3610-056 Client: LUKE AFB

Cust ID: 0304B020  
Rfw#: 0260

	fl	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	93 %	0.001 U	0.001 U	0.001 U	90 %
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	80 %	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	81 %
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-056- Client: LUKE AFB Page: 6

Cust ID: LAB DUP MTRX SPK  
RWF#: 0030 0030  
Matrix: Soil Soil  
D.F.: 1 1  
Units: mg/kg mg/kg

Sample Information	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	0.001 U	fl	0.001 U	fl	0.001 U	fl
Bromomethane.....	0.001 U	fl	0.001 U	fl	0.001 U	fl
Vinyl Chloride.....	*		*		*	
Chloroethane.....	0.001 U		0.001 U		0.001 U	
Methylene Chloride.....	0.004 U		0.004 U		0.004 U	
Acetone.....	NA		NA		NA	
Carbon Disulfide.....	NA		NA		NA	
1,1-Dichloroethene.....	0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....	0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....	0.001 U		0.001 U		0.001 U	
Chloroform.....	0.001 U		0.001 U		75 %	
1,2-Dichloroethane.....	0.001 U		0.001 U		0.001 U	
2-Butanone.....	0.001 U		0.001 U		0.001 U	
1,1,1-Trichloroethane.....	0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....	0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....	0.001 U		0.001 U		57 %	
1,2-Dichloropropane.....	0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U	
Trichloroethene.....	0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....	0.002 U		0.002 U		36 %	
1,1,2-Trichloroethane.....	0.001 U		0.001 U		0.001 U	
Benzene.....	0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....	0.002 U		0.002 U		0.002 U	
Bromoform.....	0.004 U		0.004 U		24 %	
4-Methyl-2-pentanone.....	NA		NA		NA	

=====  
 RFW Batch Number: 8610-056- Client: LUKE AFB Page: 6  
 =====

Cust ID:	LAB DUP	MTRX SPK	FW#:	0030	0030
Tetrachloroethene.....	0.001 U	0.001 U			
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U			
Toluene.....	0.001 U	0.001 U			
Chlorobenzene.....	0.001 U	0.001 U			
Ethylbenzene.....	0.001 U	0.001 U			
Styrene.....	NA	NA			
Total Xylenes.....	0.001 U	0.001 U			
1,2-Dichlorobenzene.....	0.001 U	0.001 U			
1,3-Dichlorobenzene.....	0.001 U	0.001 U			
1,4-Dichlorobenzene.....	0.001 U	0.001 U			
Trichlorofluoromethane.....	0.001 U	0.001 U			
Dichlorodifluoromethane.....	0.001 U	0.001 U			*

\* COELUTION OF VINYL CHLORIDE AND DICHLOROFLOROMETHANE - WILL CONFIRM IDENTITY ON SECOND COLUMN.

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON  
WESTON

WESTON Analytics  
LUKE AFB  
RFWBN: 8610-056, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15      Analysis Date: 10-26-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Please note that vinyl chloride and dichlorofluoromethane co-elute on the primary column. Neither confirms the second column. This is probably due to dichlorofluoromethane arising from laboratory contamination since it is used as the oil and grease extraction solvent.

*Carter P. Nulton*  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

1-28-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8610-056, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-056-0100	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-056-0110	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-056-0120	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-056-0130	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-056-0140	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

R/W Batch Number: 8610-063 Client: LUKE AFB

PAGE 1

Sample Information	Cust ID:	0305B005	0305B010	0305B015	0305B020	0305B035	0305B050
RFW#:	0010	0020	0030	0040	0050	0060	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NR	NR	NR	NR	NR	NR	NR
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NR	NR	NR	NR	NR	NR	NR

RFW Batch Number: 8610-063 Client: LUKE AFB PAGE 1

	Cust ID: 0305B005	0305B010	0305B015	0305B020	0305B035	0305B050
RFW#:	0010	0020	0030	0040	0050	0060
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-063

Client: LUKE AFB

Page: 2

Sample Information	Cust ID:	RFW#:	Matrix:	D.F.:	Units:	0305B070		0305B170		0305B095		0304B035		0304B050		0304B070	
						mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....		0070	Soil	1		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride.....						0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone.....						NA		NA		NA		NA		NA		NA	
Carbon Disulfide.....						NA		NA		NA		NA		NA		NA	
1,1-Dichloroethene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone.....						NR		NR		NR		NR		NR		NR	
1,1,1-Trichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....						0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....						0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform.....						0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone.....						NR		NR		NR		NR		NR		NR	

RFW Batch Number: 8610-063

Client: LUKE AFB

Page: 2

Cust ID: 0305B070 0305B170 0305B095 0304B035 0304B050 0304B070  
RFW#: 0070 0080 0110 0120 0130 0140

	0305B070	0305B170	0305B095	0304B035	0304B050	0304B070
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

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U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-063 Client: LUKE AFB Page: 3

Sample Information	Cust ID: 0304B095	0502B005	0502B010	0502B015	0502B020	0502B025
	RFW#: 0150	0160	0170	0180	0190	0200
	Matrix: Soil	Soil	Soil	Soil	Soil	Soil
	D.F.: 1	1	1	1	1	1
	Units: mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NR	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NR	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

Client: LUKE AFB

RFW Batch Number: 8610-063

Cust ID: 0304B095

RFW#: 0150

Cust ID: 0502B005

RFW#: 0160

Cust ID: 0502B010

RFW#: 0170

Cust ID: 0502B015

RFW#: 0180

Cust ID: 0502B020

RFW#: 0190

Cust ID: 0502B025

RFW#: 0200

Compound	0150	0160	0170	0180	0190	0200
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene	NA	NA	NA	NA	NA	NA
Total Xylenes	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Sample Information	Cust ID:	0502B125	0502B030	0409B075	0409B175	0409B090	0409B100	Page:
	RFW#:	0210	0220	0230	0240	0250	0270	
	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
	D.F.:	1	1	1	1	1	1	
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	
Acetone.....		NA	NA	NA	NA	NA	NA	
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
2-Butanone.....		0.020 U	0.020 U	NR	NR	NR	NR	
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	
4-Methyl-2-pentanone.....		0.020 U	0.020 U	NR	NR	NR	NR	

RFW Batch Number: 8610-063 Client: LUKE AFB Page:

	Cust ID: 0502B125	0502B030	0409B075	0409B175	0409B090	0409B100
RFW#:	0210	0220	0230	0240	0250	0270
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-063 Client: LUKE AFB Page:

Sample Information	Cust ID:	0501B050	0501B055	0501B065	0501B070	0501B075	0501B175
RFW#:	0290	0300	0310	0320	0330		0340
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

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RFW Batch Number: 8610-063      Client: LUKE AFB      Page:
=====
Cust ID: 0501B050 0501B055 0501B065 0501B070 0501B075 0501B175
RFW#: 0290 0300 0310 0320 0330 0340
=====
Tetrachloroethene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
1,1,2,2-Tetrachloroethane..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
Toluene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
Chlorobenzene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
Ethylbenzene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
Styrene..... NA NA NA NA NA NA
Total Xylenes..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
1,2-Dichlorobenzene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
1,3-Dichlorobenzene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
1,4-Dichlorobenzene..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
Trichlorofluoromethane..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
Dichlorodifluoromethane..... 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U 0.001 U
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U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Client: LUKE AFB

RFW Batch Number: 8610-063

Page: 6

Sample Information	Cust ID:	0501B080	0501B085	0501B090	0501B100	0501B005	0501B010
RFW#:	0350	0370	0380	0390	0410	0420	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	fl	fl	fl	fl	fl	fl	fl
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

	Cust ID:	0501B080	0501B085	0501B090	0501B100	0501B005	0501B010
RFW#:	0350	0370	0380	0390	0410	0420	
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.043	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-063

Client: LUKE AFB

Page:

Sample Information	Cust ID:	0501B015	0501B020	0501B025	0501B030	0501B130	0501B035
RFW#:	0430	0440	0450	0460	0470		
Matrix:	Soil	Soil	Soil	Soil	Soil		
D.F.:	1	1	1	1	1		
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

RFW Batch Number: 8610-063 Client: LUKE AFB Page:

Cust ID: 0501B015 0501B020 0501B025 0501B030 0501B130 0501B035  
 RFW#: 0430 0440 0450 0460 0470 0480

	0501B015	0501B020	0501B025	0501B030	0501B130	0501B035
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-063

Client: LUKE AFB

Sample Information	Cust ID: 0501B040	0490	Soil	1	mg/kg	fl	0501B045	0500	Soil	1	mg/kg	fl	BS	BS	Soil	1	mg/kg	fl	BS	BS	Soil	1	mg/kg	
																								0501B045
Chloromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromomethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Vinyl Chloride.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methylene Chloride.....	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1-Dichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,2-Dichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroform.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,2-Dichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Butanone.....	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
1,1,1-Trichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Carbon Tetrachloride.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromodichloromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,2-Dichloropropane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,3-Dichloropropene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Dibromochloromethane.....	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
1,1,2-Trichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Benzene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
cis-1,3-Dichloropropene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Chloroethylvinylether.....	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Bromoform.....	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
4-Methyl-2-pentanone.....	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U

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 RFW Batch Number: 8610-063      Client: LUKE AFB      Page: 8  
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	Cust ID: 0501B040	0501B045	BLANK	BS	BLANK	BS	BLANK	BS
	RFW#: 0490	0500	BLANK	BS	BLANK	BS	BLANK	BS
	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	80 %	0.001 U	80 %	0.001 U	90 %
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	78 %	0.001 U	78 %	0.001 U	96 %
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	75 %	0.001 U	75 %	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-063

Client: LUKE AFB

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Sample Information	Cust ID:		BLANK		BS		BLANK		BS		LAB DUP	
	RFW#:	Matrix:	BLANK	Soil	BS	Soil	BLANK	Soil	BS	Soil	0340	Soil
D.F.:	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	121 %	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	110 %	0.001 U	0.001 U	0.001 U	0.001 U	107 %	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	109 %	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	104 %	0.002 U	0.002 U	0.002 U	0.002 U	99 %	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	97 %	0.001 U	0.001 U	0.001 U	0.001 U	89 %	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	100 %	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

=====  
 RFW Batch Number: 8610-063      Client: LUKE AFB      Page: 9  
 =====

Cust ID: RFW#:	BLANK		BS		BLANK		BS		LAB DUP	
	BLANK	BLANK	BS	BS	BLANK	BLANK	BS	BS	0340	
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	96 %	86 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	105 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	97 %	84 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	96 %	85 %	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	98 %		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON Analytcs

LUKE AFB


RFWBN: 8610-063, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Dates: 10-30-86, 11-01-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

  
\_\_\_\_\_  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

1-28-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8610-063, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-063-0390	Trichloroethene	0.005 mg/kg	YES
8610-063-0410	Trichloroethene	0.001 mg/kg	NO
	Ethylbenzene	0.007 mg/kg	NO
	Xylene	0.043 mg/kg	NO



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-065

Client: LUKE AFB SITE 05

Page:

Cust ID: 02-B035 02-B040 02-B045 02-B050 02-B055 02-B060  
 RFW#: 0010 0020 0030 0040 0050 0060  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1  
 Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

Sample Information	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,1-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

RFW Batch Number: 8610-065	Client: LUKE AFB	Page: 1			
Cust ID: 02-B035	02-B040	02-B045	02-B050	02-B055	02-B060
RFW#: 0010	0020	0030	0040	0050	0060
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-065

Client: LUKE AFB

Page:

Sample Information	Cust ID:	0502B065	0502B070	0502B075	0502B175	0306B005	0306B010	Page:
Matrix:	RFW#:	0070	0090	0100	0110	0120	0130	
D.F.:	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
Units:	D.F.:	1	1	1	1	1	1	
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004
Acetone.....		NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,2-Dichloroethane.....		0.020 U	0.020 U	0.020 U	0.020 U	NR	NR	NR
2-Butanone.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004
4-Methyl-2-pentanone.....		0.020 U	0.020 U	0.020 U	0.020 U	NR	NR	NR

RFW Batch Number: 8610-065	Client: LUKE AFB	Page: 2				
	Cust ID: 0502B065	0502B070	0502B075	0502B175	0306B005	0306B010
	RFW#: 0070	0090	0100	0110	0120	0130
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



	Cust ID:	06-B015	06-B015	06-B015	06-B015	06-B020	06-B035	06-B045
	RFW#:	0140	0140 D	0140MS	0150	0160	0180	
Tetrachloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....		NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-065 Client: LUKE AFB SITE 03 Page: 4

Sample Information	06-B145		06-B060		06-B080		06-B100		06-B100		06-B100	
	Cust ID:	RFW#:	0200	Soil	0220	Soil	0230	Soil	0230 D	Soil	0230MS	Soil
Matrix:	1	1	1	1	1	1	1	1	1	1	1	1
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl	fl
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-065		Client: LUKE AFB		Page:	
Cust ID:	06-B145	06-B060	06-B080	06-B100	06-B100
RFW#:	0190	0200	0220	0230	0230 D
	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-065 Client: LUKE AFB Site 05 Page: 5

Sample Information	Cust ID:	02-B080	02-B085	02-B090	02-B095	02-B098	02-B098
	RFW#:	0240	0250	0260	0270	0280	0280
	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
	D.F.:	1	1	1	1	1	1
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.034 U
2-Butanone.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

=====  
 RFW Batch Number: 8610-065 Client: LUKE AFB Page: 5  
 =====

	Cust ID:	02-B080	02-B085	02-B090	02-B095	02-B098	02-B098
	RFW#:	0240	0250	0260	0270	0280	0280 D
		fl	fl	fl	fl	fl	fl
Tetrachloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.007	0.002
Chlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....		NA	NA	NA	NA	NA	NA
Total Xylenes.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlzenes.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-065

Client: LUKE AFB

Page: 6

Sample Information	Cust ID:		BS		BLANK		BS		BLANK		BS	
	RFW#:	Matrix:	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg
D.F.:	Units:	1	fl	1	fl	1	fl	1	fl	1	fl	1
Chloromethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Bromomethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Vinyl Chloride.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Chloroethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Methylene Chloride.....		0.004 U	fl	0.004 U	fl	0.004 U	fl	111 §	fl	0.004 U	fl	0.004 U
Acetone.....		NA	fl	NA	fl	NA	fl	NA	fl	NA	fl	NA
Carbon Disulfide.....		NA	fl	NA	fl	NA	fl	NA	fl	NA	fl	NA
1,1-Dichloroethene.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
1,1-Dichloroethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Chloroform.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	89 §	fl	0.001 U	fl	94 §
1,2-Dichloroethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
2-Butanone.....		0.020 U	fl	0.020 U	fl	0.020 U	fl	0.020 U	fl	0.020 U	fl	0.020 U
1,1,1-Trichloroethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Carbon Tetrachloride.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Bromodichloromethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	82 §	fl	0.001 U	fl	92 §
1,2-Dichloropropane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Trichloroethene.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	116 §	fl	0.001 U	fl	0.001 U
Dibromochloromethane.....		0.002 U	fl	0.002 U	fl	0.002 U	fl	79 §	fl	0.002 U	fl	86 §
1,1,2-Trichloroethane.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
Benzene.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	89 §	fl	0.001 U	fl	101 §
cis-1,3-Dichloropropene.....		0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U
2-Chloroethylvinylether.....		0.002 U	fl	0.002 U	fl	0.002 U	fl	0.002 U	fl	0.002 U	fl	0.002 U
Bromoform.....		0.004 U	fl	0.004 U	fl	0.004 U	fl	76 §	fl	0.004 U	fl	72 §
4-Methyl-2-pentanone.....		0.020 U	fl	0.020 U	fl	0.020 U	fl	0.020 U	fl	0.020 U	fl	0.020 U

Client: LUKE AFB

RFW Batch Number: 8610-065

Cust ID: RFW#	BLANK		BS		BLANK		BS		BLANK		BS	
	U	%	U	%	U	%	U	%	U	%	U	%
Tetrachloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1,2,2-Tetrachloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Toluene.....	0.001	U	86	%	0.001	U	0.001	U	0.001	U	98	%
Chlorobenzene.....	0.001	U	105	%	0.001	U	0.001	U	0.001	U	0.001	U
Ethylbenzene.....	0.001	U	84	%	0.001	U	0.001	U	0.001	U	105	%
Styrene.....	NA		NA		NA		NA		NA		NA	
Total Xylenes.....	0.001	U	85	%	0.001	U	0.001	U	0.001	U	104	%
1,2-Dichlorobenzene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,3-Dichlorobenzene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,4-Dichlorobenzenes.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trichlorofluoromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Dichlorodifluoromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

**WESTON**

WESTON Analytics

LUKE AFB

RFWBN: 8610-065, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Dates: 11-01,02-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Carter P. Nulton      1-23-87  
Carter P. Nulton, Ph.D.      DATE  
Organics Section Manager  
WESTON Analytical Laboratories

WESTON Analytics  
LUKE AFB  
RFWBN: 8610-065, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-065-0280	Trichloroethene	0.007 mg/kg	YES
	Toluene	0.007 mg/kg	YES
8610-065-0280 D	Toluene	0.002 mg/kg	YES
	MEK	0.024 mg/kg	NO

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-076 Client: LUKE AFB Page: 1

Cust ID: 06-01-B005 06-01-B105 06-01-B010 06-01-B015 06-01-B015 06-01-B015 06-01-B020

Sample Information	RFW#:	Matrix:	D.F.:	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0010	Soil	2500	3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0020	Soil	2500	3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....				3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Chloroethane.....				3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	10 U			10 U	10 U	10 U	10 U	10 U	10 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Chloroform.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	74			50 U	50 U	50 U	50 U	50 U	50 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	5 U			5 U	5 U	5 U	5 U	5 U	5 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Benzene.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	3 U			3 U	3 U	3 U	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	5 U			5 U	5 U	5 U	5 U	5 U	5 U	0.002 U	0.002 U	0.002 U
Bromoform.....	10 U			10 U	10 U	10 U	10 U	10 U	10 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	50 U			50 U	50 U	50 U	50 U	50 U	50 U	0.02 U	0.02 U	0.02 U

RFW Batch Number: 8610-076 Client: LUKE AFB Page: 1

Cust ID: 06-01-B005 06-01-B105 06-01-B010 06-01-B015 06-01-B015 06-01-B015 06-01-B015 06-01-B020  
 RFW#: 0010 0020 0030 0040 0040 D 0050

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Toluene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	68	93	36	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	3 U	3 U	3 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present but less than quantification limit. NR=Not requested



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-076

Client: LUKE AFB

Page: 2

Cust ID: 06-01-B015 06-01-B025 06-01-B035 06-01-B040 06-01-B045 06-01-B050  
 RFW#: 0050 MS 0060 0070 0080 0090 0100  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1

Sample Information	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride.....	0.001 U		0.001 U		0.001 U		0.001 U	*	0.001 U	
Chloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone.....	NA		NA		NA		NA		NA	
Carbon Disulfide.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform.....	64 ‡		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	
1,1,1-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....	55 ‡		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....	28 ‡		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform.....	57 ‡		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	

RFW Batch Number: 8610-076 Client: LUKE AFB Page: 2

Cust ID: 06-01-B015 06-01-B025 06-01-B035 06-01-B040 06-01-B045 06-01-B050  
RFW#: 0050 MS 0060 0070 0080 0090 0100

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.005	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

\* COELUTION OF DICHLOROFLOROMETHANE & VINYL CHLORIDE;  
WILL IDENTIFY WITH SECOND COLUMN CONFIRMATION.

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

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RFW Batch Number: 8610-076

Client: LUKE AFB

Sample Information	Cust ID:	06-01-B060		06-01-B065		06-01-B070		06-01-B075		06-01-B080	
		RFW#:	0120	0130	0140	0150	0160	0160	0160	0160	0160
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:		1	1	1	1	1	1	1	1	1	1
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		*	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

RFW Batch Number: 8610-076

Client: LUKE AFB

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Cust ID: 06-01-B060 06-01-B065 06-01-B070 06-01-B075 06-01-B080 06-01-B080  
RFW#: 0120 0130 0140 0150 0160 0160 D

	0120	0130	0140	0150	0160	0160 D
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	*	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

\* COELUTION OF DICHLOROFLOROMETHANE & VINYL CHLORIDE;  
WILL IDENTIFY WITH SECOND COLUMN CONFIRMATION.

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-076

Client: LUKE AFB

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Sample Information  
Cust ID: 06-01-B080 06-01-B085 06-01-B090 06-01-B095 06-01-B100 06-02-B060  
RFW#: 0160 MS 0170 0180 0190 0200 0210  
Matrix: Soil Soil Soil Soil Soil Soil  
D.F.: 1 1 1 1 1 1  
Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	78	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.02 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	45	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	39	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

RFW Batch Number: 8610-076

Client: LUKE AFB

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Cust ID: 06-01-B080 06-01-B085 06-01-B090 06-01-B095 06-01-B100 06-02-B060  
RFW#: 0160 MS 0170 0180 0190 0200 0210

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-076

Client: LUKE AFB

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Cust ID: 06-02-B065 06-02-B070 06-02-B075 06-02-B175 06-02-B080 06-02-B085

RFW#: 0220 0230 0240 0250 0260 0270

Matrix: Soil Soil Soil Soil Soil Soil

D.F.: 1 1 1 1 1 1

Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

RFW Batch Number: 8610-076

Client: LUKE AFB

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Cust ID: 06-02-B065 06-02-B070 06-02-B075 06-02-B175 06-02-B080 06-02-B085  
RFW#: 0220 0230 0240 0250 0260 0270

	0220	0230	0240	0250	0260	0270
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.009 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

H-395

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-076 Client: LUKE AFB Page: 6

Sample Information	Cust ID:	06-C2-B090	06-02-B095	06-02-B100	06-02-B005	06-02-B010	06-02-B015
RFW#:	0280	0290	0300	0310	0320	0330	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	250	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	1 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.97 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.02 U	0.02 U	0.02 U	14 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.5 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.5 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	1 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.02 U	0.02 U	0.02 U	5 U	0.02 U	0.02 U	0.02 U

RFW Batch Number: 8610-076 Client: LUKE AFB Page: 6

	0280	0290	0300	0310	0320	0330
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.56	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.3 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present but less than quantification limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-076 Client: LUKE AFB

Page: 7

Cust ID: 06-02-B020 06-02-B030 06-02-B130 06-02-B035 06-02-B040 06-02-B045

Sample Information  
RFW#: 0340 0360 0370 0380 0390 0400  
Matrix: Soil Soil Soil Soil Soil Soil  
D.F.: 1 1 1 1 1 1  
Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

Sample Information	06-02-B020	06-02-B030	06-02-B130	06-02-B035	06-02-B040	06-02-B045
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

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 RFW Batch Number: 8610-076      Client: LUKE AFB      Page: 7  
 =====

Cust ID: 06-02-B020 06-02-B030 06-02-B130 06-02-B035 06-02-B040 06-02-B045  
 RFW#:      0340      0360      0370      0380      0390      0400

	0340	0360	0370	0380	0390	0400
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
 J=Present but less than quantification limit.      NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Client: LUKE AFB

RFW Batch Number: 8610-076

Sample Information	Cust ID:	BLANK		BS		BLANK		BS	
		mg/kg	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil
Chloromethane.....		0.001 U		NRP		0.001 U		NRP	
Bromomethane.....		0.001 U		NRP		0.001 U		NRP	
Vinyl Chloride.....		*		NRP		0.001 U		NRP	
Chloroethane.....		0.001 U		NRP		0.001 U		NRP	
Methylene Chloride.....		0.004 U		NRP		0.004 U		NRP	
Acetone.....		NA		109 %		NA		NRP	
Carbon Disulfide.....		0.001 U		NRP		0.001 U		NRP	
1,1-Dichloroethene.....		0.001 U		NRP		0.001 U		NRP	
1,1-Dichloroethane.....		0.001 U		NRP		0.001 U		NRP	
Trans-1,2-Dichloroethene.....		0.001 U		NRP		0.001 U		NRP	
Chloroform.....		0.001 U		123 %		0.001 U		119 %	
1,2-Dichloroethane.....		0.001 U		NRP		0.001 U		NRP	
2-Butanone.....		0.02 U		113 %		0.02 U		NRP	
1,1,1-Trichloroethane.....		0.001 U		NRP		0.001 U		NRP	
Carbon Tetrachloride.....		0.001 U		NRP		0.001 U		NRP	
Bromodichloromethane.....		0.001 U		126 %		0.001 U		122 %	
1,2-Dichloropropane.....		0.001 U		NRP		0.001 U		NRP	
Trans-1,3-Dichloropropene.....		0.001 U		NRP		0.001 U		NRP	
Trichloroethene.....		0.001 U		NRP		0.001 U		NRP	
Dibromochloromethane.....		0.002 U		108 %		0.002 U		106 %	
1,1,2-Trichloroethane.....		0.001 U		NRP		0.001 U		NRP	
Benzene.....		0.001 U		NRP		0.001 U		98 %	
cis-1,3-Dichloropropene.....		0.001 U		NRP		0.001 U		NRP	
2-Chloroethylvinylether.....		0.002 U		NRP		0.002 U		NRP	
Bromoform.....		0.004 U		NRP		0.004 U		112 %	
4-Methyl-2-pentanone.....		0.02 U		114 %		0.02 U		NRP	

RFW Batch Number: 8610-076 Client: LUKE AFB Page: 8

Cust ID: RFW#:	BLANK		BS		BLANK		BS	
	BLANK	BLANK	BS	BS	BLANK	BLANK	BS	BS
Tetrachloroethene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
Toluene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	99 %	99 %
Chlorobenzene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
Ethylbenzene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	97 %	97 %
Styrene.....	NA	NA	NRP	NRP	NA	NA	NRP	NRP
Total Xylenes.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	95 %	95 %
1,2-Dichlorobenzene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
1,3-Dichlorobenzene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
1,4-Dichlorobenzene.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
Trichlorofluoromethane.....	0.001 U	0.001 U	NRP	NRP	0.001 U	0.001 U	NRP	NRP
Dichlorodifluoromethane.....	*	*	NRP	NRP	0.001 U	0.001 U	NRP	NRP

\* COELUTION OF DICHLOROFLOROMETHANE & VINYL CHLORIDE;  
WILL IDENTIFY WITH SECOND COLUMN CONFIRMATION.

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested.



WESTON Analytics

LUKE AFB

RFWBN: 8610-076, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15 Analysis Date: 11-03-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons. Analysis of samples containing high levels of aromatics was also performed by an extraction (5 gram to 5 ml dichloroethane) followed by analysis on a DB-5 capillary column.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

Please note that vinyl chloride and dichlorofluoromethane co-elute on the primary column. Neither confirms the second column. This is probably due to dichlorofluoromethane arising from laboratory contamination since it is used as the oil and grease extraction solvent.

Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

1-28-86

DATE

WESTON Analytics  
 LUKE AFB  
 RFWBN: 8610-076, VOA SECOND COLUMN CONFIRMATION  
 W.O. #: 0628-09-15

SUMMARY OF  
 VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-076-0010	MEK	74 ma/kg	N *
8610-076-0010	Xylene	66 ma/kg	YES
8610-076-0020	Xylene	93 mg/kg	YES
8610-076-0030	Xylene	36 mg/kg	YES
8610-076-0040	Chloroform	0.001 mg/kg	NO
8610-076-0070	Toluene	0.005 mg/kg	NO
8610-076-0090	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-076-0100	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-076-0120	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-076-0240	Xylene	0.009 mg/kg	NO
8610-076-0310	Chloroform	0.970 mg/kg	NO
	Xylene	0.560 mg/kg	NO
	MEK	14 ma/kg	YES

Not confirmed, analyzed at 1:1000 dilution



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-090 Client: LUKE AFB Page: 1

Cust ID: 06-03-B005 06-03-B010 06-03-B015 06-03-B115 06-03-B020 06-03-B025

Sample Information RFW#: 0010 0020 0030 0040 0050 0060  
Matrix: Soil Soil Soil Soil Soil Soil  
D.F.: 1 1 1 1 1 1  
Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride.....	*		*							
Chloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone.....	NA		NA		NA		NA		NA	
Carbon Disulfide.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform.....	0.002		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	
1,1,1-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	

RFW#	Cust ID	06-03-B005	06-03-B010	06-03-B015	06-03-B115	06-03-B020	06-03-B025
		0010	0020	0030	0040	0050	0060
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.017	0.001 U	0.001 U	0.003	0.001 U	0.001 U	0.001
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	*	*	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

\* = Coelution of vinyl chloride and dichlorofluoromethane;  
will identify with second column confirmation

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Page: 2

Client: LUKE AFB

RFW Batch Number: 8610-090

Cust ID: 06-03-B030 06-03-B035 06-03-B040 06-03-B045 06-03-B045 06-03-B045 06-03-B045  
 RFW#: 0070 0080 0090 0100 0100 D 0100 MS  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1  
 Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

Sample Information	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone	NA	NA	NA	NA	NA	NA
Carbon Disulfide	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform	0.001 U	0.004	0.004	0.002	0.001	72 %
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	44 %
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	28 %
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	64 %
4-Methyl-2-pentanone	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

=====  
 RFW Batch Number: 8610-090      Client: LUKE AFB      Page: 2  
 =====

Cust ID: 06-03-B030 06-03-B035 06-03-B040 06-03-B045 06-03-B045 06-03-B045 06-03-B045  
 RFW#: 0070 0080 0090 0100 0100 D 0100 MS

	0070	0080	0090	0100	0100 D	0100 MS
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
 J=Present but less than quantification limit.      NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RfW Batch Number: 8610-090 Client: LUKE AFB Page: 3

Sample Information	Cust ID:	06-03-B055	06-03-B060	06-03-B065	06-03-B070	06-03-B075	06-03-B080
RfW#:	0120	0130	0140	0150	0160	0170	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.004	0.002	0.002	0.003	0.003	0.003
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

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 RFW Batch Number: 8610-090      Client: LUKE AFB      Page: 3  
 =====

	0120	0130	0140	0150	0160	0170
Cust ID: 06-03-B055	06-03-B060	06-03-B065	06-03-B070	06-03-B075	06-03-B080	
RFW#:						
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.003	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
 J=Present but less than quantification limit.      NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-090

Client: LUKE AFB

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Sample Information	Cust ID:	RFW#:	Matrix:	D.F.:	Units:	06-03-B085		06-03-B090		06-03-B190		06-03-B095		06-03-B098		06-04-B005	
						mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....		0180	Soil	1	mg/kg	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl	0.001 U	fl
Bromomethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride.....						0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone.....						NA		NA		NA		NA		NA		NA	
Carbon Disulfide.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform.....						0.001		0.002		0.001 U		0.002		0.001 U		0.001 U	
1,2-Dichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone.....						0.02 U		0.02 U		0.02 U		0.02 U		0.25		0.02 U	
1,1,1-Trichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....						0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....						0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....						0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform.....						0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone.....						0.02 U		0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	

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 RFW Batch Number: 8610-090      Client: LUKE AFB      Page: 4  
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Cust ID: 06-03-B085 06-03-B090 06-03-B190 06-03-B095 06-03-B098 06-04-B005  
 RFW#: 0180 0190 0200 0210 0220 0230

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.004	0.002	0.002	0.001 U	0.004	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
 J=Present but less than quantification limit.      NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

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RFW Batch Number: 8610-090 Client: LUKE AFB

Cust ID: 06-04-B010 06-04-B015 06-04-B020 06-04-B025 06-04-B030 06-04-B035  
 RFW#: 0240 0250 0260 0270 0280 0290  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1  
 Units: mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg

	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone.....	NA		NA		NA		NA		NA		NA	
Carbon Disulfide.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	
1,1,1-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	

Client: LUKE AFB

RFW Batch Number: 8610-090

Cust ID: 06-04-B010 06-04-B015 06-04-B020 06-04-B025 06-04-B030 06-04-B035  
RFW#: 0240 0250 0260 0270 0280 0290

	0240	0250	0260	0270	0280	0290
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Client: LUKE AFB

RFW Batch Number: 8610-090

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Sample Information	Cust ID:	RFW#:	Matrix:	D.F.:	Units:	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	06-04-B130	0300	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	06-04-B045	0320	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	06-04-B045	0320 D	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	06-04-B045	0320 MS	Soil	1	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	06-04-B045	0320 D	Soil	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	06-04-B045	0320 D	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	06-04-B045	0320 MS	Soil	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
1,2-Dichloroethane.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	06-04-B045	0320 MS	Soil	1	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	06-04-B045	0320 MS	Soil	1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	06-04-B045	0320 MS	Soil	1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	06-04-B045	0320 MS	Soil	1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	06-04-B045	0320 MS	Soil	1	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	06-04-B045	0320 MS	Soil	1	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

RFW Batch Number: 8610-090 Client: LUKE AFB Page: 6

Cust ID: 06-04-B130 06-04-B045 06-04-B045 06-04-B045 06-04-B050 06-04-B050 06-04-B055  
 RFW#: 0300 0320 0320 D 0320 MS 0330 0340

	fl	fl	fl	fl	fl	fl
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present but less than quantification limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-090

Client: LUKE AFB

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Cust ID: 06-04-B060 06-04-B065 06-04-B070 06-04-B170 06-04-B080 06-04-B085  
 RFW#: 0350 0360 0370 0380 0400 0410  
 Matrix: Soil Soil Soil Soil Soil Soil  
 D.F.: 1 1 1 1 1 1

Sample Information	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone.....	NA		NA		NA		NA		NA	
Carbon Disulfide.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	
2-Butanone.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1,1-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene.....	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether.....	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform.....	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone.....	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	

Client: LUKE AFB

RFW Batch Number: 8610-090

Cust ID: 06-04-B060 06-04-B065 06-04-B070 06-04-B170 06-04-B080 06-04-B085  
RFW#: 0350 0360 0370 0380 0400 0410

	0350	0360	0370	0380	0400	0410
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present but less than quantification limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Client: LUKE AFB

RFW Batch Number: 8610-090

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Cust ID: 06-04-B090 06-04-B095 06-04-B100  
RWF#: 0420 0430 0440  
Matrix: Soil Soil Soil  
D.F.: 1 1 1  
Units: mg/kg mg/kg mg/kg

BLANK BLANK BLANK  
Soil Soil Soil  
1 1 1

BS BS BS  
Soil Soil Soil  
1 1 1

Sample Information	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromomethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Vinyl Chloride	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Methylene Chloride	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
Acetone	NA		NA		NA		NA		NA	
Carbon Disulfide	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,1-Dichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,2-Dichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Chloroform	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Butanone	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	
1,1,1-Trichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Carbon Tetrachloride	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Bromodichloromethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
1,2-Dichloropropane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trans-1,3-Dichloropropene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Trichloroethene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Dibromochloromethane	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
1,1,2-Trichloroethane	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
Benzene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
cis-1,3-Dichloropropene	0.001 U		0.001 U		0.001 U		0.001 U		0.001 U	
2-Chloroethylvinylether	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U	
Bromoform	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U	
4-Methyl-2-pentanone	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	

=====  
RWF Batch Number: 8610-090      Client: LUKE AFB      Page: 8  
=====  
Cust ID: 06-04-B090 06-04-B095 06-04-B100      BLANK      BS      BLANK  
RWF#: 0420 0430 0440      BLANK      BS      BLANK  
=====  
f1      f1      f1      f1      f1      f1      f1      f1  
=====  
Tetrachloroethene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
1,1,2,2-Tetrachloroethane.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
Toluene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
Chlorobenzene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
Ethylbenzene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
Styrene.....      NA      NA      NA      NA      NRP      NA  
Total Xylenes.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
1,2-Dichlorobenzene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
1,3-Dichlorobenzene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
1,4-Dichlorobenzene.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
Trichlorofluoromethane.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
Dichlorodifluoromethane.....      0.001 U      0.001 U      0.001 U      0.001 U      NRP      0.001 U  
=====

U=Analyzed, not detected. B=Present in blank.      NRP=Not Reported  
J=Present but less than quantification limit.      NR=Not requested.



WESTON Analytics  
LUKE AFB  
RFWBN: 8610-090, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15      Analysis Dates: 11-4,5-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e.; levels found in the second column confirmation were checked for similarity to the quantification column results.

Please note that vinyl chloride and dichlorofluoromethane co-elute on the primary column. Neither confirms the second column. This is probably due to dichlorofluoromethane arising from laboratory contamination since it is used as the oil and grease extraction solvent.

C. P. Nulton      1-28-87  
Carter P. Nulton, Ph.D.      DATE  
Organics Section Manager  
WESTON Analytical Laboratories

WESTON Analytics  
 LUKE AFB  
 RFWBN: 8610-090, VOA SECOND COLUMN CONFIRMATION  
 W.O. #: 0628-09-15

SUMMARY OF  
 VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8610-090-0010	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
	Chloroform	0.002 mg/kg	NO
	Toluene	0.017 mg/kg	NO
8610-090-0020	Dichlorofluoro- methane or vinyl chloride	Co-elute	NO
8610-090-0040	Toluene	0.003 mg/kg	NO
	MEK	0.023 mg/kg	NO
8610-090-0060	Toluene	0.001 mg/kg	NO
8610-090-0080	Chloroform	0.004 mg/kg	NO
8610-090-0090	Chloroform	0.004 mg/kg	NO
8610-090-0100	Chloroform	0.002 mg/kg	NO
8610-090-0130	Chloroform	0.004 mg/kg	NO
8610-090-0140	Chloroform	0.002 mg/kg	NO
8610-090-0150	Chloroform	0.002 mg/kg	NO
8610-090-0160	Chloroform	0.003 mg/kg	NO
	Toluene	0.003 mg/kg	NO
8610-090-0170	Chloroform	0.003 mg/kg	NO
8610-090-0180	Chloroform	0.001 mg/kg	NO
	Toluene	0.004 mg/kg	NO
8610-090-0190	Chloroform	0.002 mg/kg	NO
	Toluene	0.002 mg/kg	NO
8610-090-0200	Toluene	0.002 mg/kg	NO
8610-090-0210	Chloroform	0.002 mg/kg	NO
8610-090-0220	Chloroform	0.003 mg/kg	NO
	Toluene	0.004 mg/kg	NO
	MEK	0.025 mg/kg	NO
8610-090-0260	Chloroform	0.002 mg/kg	NO
8610-090-0270	Chloroform	0.001 mg/kg	NO
8610-090-0280	Chloroform	0.001 mg/kg	NO
8610-090-0290	Chloroform	0.002 mg/kg	NO

8610-090-0300	Chloroform	0.002 mg/kg	NO
8610-090-0320	Chloroform	0.001 mg/kg	NO
8610-090-0340	Chloroform	0.002 mg/kg	NO

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

Sample Information	Cust ID:	0201B005	0201B010	0201B015	0204B005	0204B020	0202B005	Page:
	RFW#:	0010	0020	0040	0060	0090	0100	
	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
	D.F.:	1	1	1	1	1	1	
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-099- Client: LUKE AFB Page:

	Cust ID: 0201B005	0201B010	0201B015	0204B005	0204B020	0202B005
RFW#:	0010	0020	0040	0060	0090	0100
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-099-

Client: LUKE AFB

Page: 2

Sample Information	Cust ID:	LAB DUP	BLANK		B.S.		BLANK		B.S.	
			0090	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil
Matrix:	D.F.:	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromomethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Vinyl Chloride.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methylene Chloride.....	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Acetone.....	NA		NA		NA		NA		NA	
Carbon Disulfide.....	NA		NA		NA		NA		NA	
1,1-Dichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1-Dichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,2-Dichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroform.....	0.001	U	0.001	U	94	%	0.001	U	104	%
1,2-Dichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Butanone.....	NA		NA		NA		NA		NA	
1,1,1-Trichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Carbon Tetrachloride.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromodichloromethane.....	0.001	U	0.001	U	92	%	0.001	U	109	%
1,2-Dichloropropane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,3-Dichloropropene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Dibromochloromethane.....	0.002	U	0.002	U	86	%	0.002	U	94	%
1,1,2-Trichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Benzene.....	0.001	U	0.001	U	101	%	0.001	U	0.001	U
cis-1,3-Dichloropropene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Chloroethylvinylether.....	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Bromoform.....	0.004	U	0.004	U	72	%	0.004	U	99	%
4-Methyl-2-pentanone.....	NA		NA		NA		NA		NA	

Client: LUKE AFB

RFW Batch Number: 8610-099-

Cust ID: LAB DUP  
RFW#: 0090

	fl	fl	fl	fl	fl	fl	fl	fl	fl
	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.	BLANK
	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.	BLANK
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	98 §	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	105 §	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	104 §	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-998 Client: LUKE AFB Site 03 Page:

Sample Information	Cust ID:	01-B005	01-B010	01-B015	01-B025	01-B040	02-B005
RFW#:	0010	0020	0030	0040	0050		0060
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA



	Cust ID:	01-B005	01-B010	01-B015	01-B025	01-B040	01-B040	02-B005
	RFW#:	0010	0020	0030	0040	0050	0050	0060
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-998      Client: LUKE AFB      Site 03      Page: 2

Sample Information	Cust ID:	02-B010	02-B015	02-B020	02-B135	02-B035	02-B055
RFW#:	0070	0080	0090	0100	0110	0120	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8610-998	Client: LUKE AFB	Page:			
Cust ID: 02-B010	02-B015	02-B020	02-B135	02-B035	02-B055
RFW#: 0070	0080	0090	0100	0110	0120
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-998 Client: LUKE AFB Site 03 Page: 3

Sample Information	Cust ID:	01-B060	01-B098	01-B080	BLANK	BS	BLANK
	RFW#:	0130	0140	0150	BLANK	BS	BLANK
	Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
	D.F.:	1	1	1	1	1	1
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....		NA	NA	NA	NA	NA	NA
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.002	0.001 U	0.001 U	83 %	0.001 U
1,2-Dichloroethane.....		0.001 U	0.006	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	95 %	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	88 %	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		NA	NA	NA	NA	NA	NA

Client: LUKE AFB

RFW Batch Number: 8610-998

	Cust ID:	01-B060	01-B098	01-B080	BLANK	BS	BLANK
	RFW#:	0130	0140	0150	BLANK	BS	BLANK
Tetrachloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	89 %	0.001 U
Ethylbenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	88 %	0.001 U
Styrene.....		NA	NA	NA	NA	NA	NA
Total Xylenes.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzenes.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8610-998

Client: LUKE AFB

Page: 4

Cust ID: BS  
RFW#: BS  
Matrix: Soil  
D.F.: 1  
Units: mg/kg

Sample Information	Units	mg/kg	fl	fl	fl	fl	fl
Chloromethane.....		0.001	U				
Bromomethane.....		0.001	U				
Vinyl Chloride.....		0.001	U				
Chloroethane.....		0.001	U				
Methylene Chloride.....		0.004	U				
Acetone.....		NA					
Carbon Disulfide.....		NA					
1,1-Dichloroethene.....		0.001	U				
1,1-Dichloroethane.....		0.001	U				
Trans-1,2-Dichloroethene.....		0.001	U				
Chloroform.....		110	%				
1,2-Dichloroethane.....		0.001	U				
2-Butanone.....		NA					
1,1,1-Trichloroethane.....		0.001	U				
Carbon Tetrachloride.....		0.001	U				
Bromodichloromethane.....		0.001	U				
1,2-Dichloropropane.....		0.001	U				
Trans-1,3-Dichloropropene.....		0.001	U				
Trichloroethene.....		0.001	U				
Dibromochloromethane.....		0.002	U				
1,1,2-Trichloroethane.....		0.001	U				
Benzene.....		83	%				
cis-1,3-Dichloropropene.....		0.001	U				
2-Chloroethylvinylether.....		0.002	U				
Bromoform.....		0.004	U				
4-Methyl-2-pentanone.....		NA					

=====  
RfW Batch Number: 8610-998                      Client:      LUKE AFB                      Page: 4  
=====

=====  
Cust ID:                      BS                      fl                      fl                      fl  
RfW#:                      BS                      fl                      fl                      fl  
=====  
Tetrachloroethene.....                      0.001 U  
1,1,2,2-Tetrachloroethane.....                      0.001 U  
Toluene.....                      0.001 U  
Chlorobenzene.....                      118 %  
Ethylbenzene.....                      108 %  
Styrene.....                      NA  
Total Xylenes.....                      0.001 U  
1,2-Dichlorobenzene.....                      0.001 U  
1,3-Dichlorobenzene.....                      0.001 U  
1,4-Dichlorobenzene.....                      0.001 U  
Trichlorofluoromethane.....                      0.001 U  
Dichlorodifluoromethane.....                      0.001 U  
=====

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.

WESTON Analytics

LUKE AFB

RFWBN: 8609-998, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 10-18-86

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

*C. P. Nulton*  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

1-28-87  
DATE



WESTON Analytics  
LUKE AFB  
RFWBN: 8609-998, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>AMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8609-998-0070	Chloroform	0.002 mg/kg	YES
8609-998-0080	Chloroform	0.001 mg/kg	YES
8609-998-0090	Chloroform	0.001 mg/kg	YES
8609-998-0140	Chloroform	0.002 mg/kg	YES
	Trans 1,2- dichloroethene	0.006 mg/kg	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-554 Client: LUKE AFB Page: 4

Sample Information	Cust ID: 02005B050		02005B070		02005B080		02005B100		02005B030							
	RFW#:	0140	Soil	mg/kg	0150	Soil	mg/kg	0160	Soil	mg/kg	0170	Soil	mg/kg	0130	Soil	mg/kg
Matrix:		Soil	1		Soil	1		Soil	1		Soil	1		Soil	1	
D.F.:		1			1			1			1			1		
Units:		mg/kg	fl		mg/kg	fl		mg/kg	fl		mg/kg	fl		mg/kg	fl	
Chloromethane.....		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U
Bromomethane.....		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U
Vinyl Chloride.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Chloroethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Methylene Chloride.....		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U
Acetone.....		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U
Carbon Disulfide.....		NA		NA		NA		NA		NA		NA		NA		NA
1,1-Dichloroethene.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
1,1-Dichloroethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Trans-1,2-Dichloroethene.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Chloroform.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
1,2-Dichloroethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
2-Butanone.....		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U
1,1,1-Trichloroethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Carbon Tetrachloride.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Bromodichloromethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
1,2-Dichloropropane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Trans-1,3-Dichloropropene.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Trichloroethene.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Dibromochloromethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
1,1,2-Trichloroethane.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
Benzene.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
cis-1,3-Dichloropropene.....		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U		0.0005 U
2-Chloroethylvinylether.....		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U		0.001 U
Bromoform.....		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U
4-Methyl-2-pentanone.....		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U		0.01 U

Client: LUKE AFB

RFW Batch Number: 8701-554

Cust ID: 02005B050 02005B070 02005B080 02005B100 02005B030  
RFW#: 0140 0150 0160 0170 0130

	0140	0150	0160	0170	0130
Tetrachloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-578

Client: LUKE AFB

Page: 2

Sample Information	Cust ID: 02006B20	LAB DUP	M.S.	02006B30		02006B50		02006B80	
				0030	0040	0060	0070		
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Vinyl Chloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Chloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	
Acetone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Trans-1,2-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Chloroform.....	0.0005 U	0.0005 U	91 %	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
2-Butanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
1,1,1-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Carbon Tetrachloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Bromodichloromethane.....	0.0005 U	0.0005 U	56 %	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2-Dichloropropane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Trans-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Trichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Dibromochloromethane.....	0.0005 U	0.0005 U	15 %	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1,2-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Benzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
cis-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
2-Chloroethylvinylether.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Bromoform.....	0.002 U	0.002 U	75 %	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	
4-Methyl-2-pentanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	

RFW Batch Number: 8701-578

Client: LUKE AFB

Page: 2

Cust ID: 02006B20 LAB DUP M.S. 02006B30 02006B50 02006B80  
RFW#: 0030 0030 0030 0040 0060 0070

Compound	02006B20	LAB DUP	M.S.	02006B30	02006B50	02006B80
Tetrachloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0003 U
1,1,2,2-Tetrachloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-578 Client: LUKE AFB Page: 3

Sample Information	Cust ID:	02006B180	02006B100	02007B40	02007B50	02007B80	02007B90
RFW#:	0080	0090	0100	0110	0120		
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trans-1,2-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Butanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
1,1,1-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Carbon Tetrachloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trans-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chloroethylvinylether.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

RFW Batch Number: 8701-578

Client: LUKE AFB

Cust ID: 02006B180 02006B100 02007B40 02007B50 02007B80 02007B90  
RWF#: 0080 0090 0100 0110 0120 0130

	02006B180	02006B100	02007B40	02007B50	02007B80	02007B90
Tetrachloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002	0.0005 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-578

Client: LUKE AFB

Page: 4

Cust ID: 02007B100

Sample  
Information

RFW#: 0140  
Matrix: Soil  
D.F.: 1  
Units: mg/kg

Compound Name	Concentration (mg/kg)	Units
Chloromethane	0.001	U
Bromomethane	0.001	U
Vinyl Chloride	0.0005	U
Chloroethane	0.0005	U
Methylene Chloride	0.004	U
Acetone	0.01	U
Carbon Disulfide	0.001	U
1,1-Dichloroethene	0.0005	U
1,1-Dichloroethane	0.0005	U
Trans-1,2-Dichloroethene	0.0005	U
Chloroform	0.0005	U
1,2-Dichloroethane	0.0005	U
2-Butanone	0.01	U
1,1,1-Trichloroethane	0.0005	U
Carbon Tetrachloride	0.0005	U
Bromodichloromethane	0.0005	U
1,2-Dichloropropane	0.0005	U
Trans-1,3-Dichloropropene	0.0005	U
Trichloroethene	0.0005	U
Dibromochloromethane	0.0005	U
1,1,2-Trichloroethane	0.0005	U
Benzene	0.0005	U
cis-1,3-Dichloropropene	0.0005	U
2-Chloroethylvinylether	0.001	U
Bromoform	0.002	U
4-Methyl-2-pentanone	0.01	U



RFW Batch Number: 8701-578

Client: LUKE AFB

Page: 4

Cust ID: 02007B100

RFW#: 0140

Tetrachloroethene.....	0.0005 U	fl	fl	fl	fl
1,1,2,2-Tetrachloroethane.....	0.0005 U				
Toluene.....	0.0005 U				
Chlorobenzene.....	0.0005 U				
Ethylbenzene.....	0.0005 U				
Styrene.....	0.0005 U				
Total Xylenes.....	0.001 U				
1,2-Dichlorobenzene.....	0.0005 U				
1,3-Dichlorobenzene.....	0.001 U				
1,4-Dichlorobenzene.....	0.001 U				
Trichlorofluoromethane.....	0.001 U				
Dichlorodifluoromethane.....	0.0005 U				
	0.001 U				

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

**WESTON**

WESTON Analytics

LUKE AFB

RFWBN: 8701-578, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 02-05-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

C. P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

2-13-87  
DATE

WESTON Analytics  
LUKE AFB  
RFWBN: 8701-578, VOA SECOND COLUMN CONFIRMATION  
W.O. #: 0628-09-15                      Analysis Date: 02-05-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8701-578-0070	Tetrachloroethene	0.003 mg/kg	NO
8701-578-0120	Trichlorofluoromethane	0.002 mg/kg	NO
	Toluene	0.005 mg/kg	NO

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

=====  
RWF Batch Number: 8701-581      Client: LUKE AFB      Page: 1  
=====  
Cust ID: 02008B40      02008B60      02008B90      LAB DUP      02008B100      02009B10  
RfW#: 0010      0020      0030      0030      0040      0050  
Matrix: Soil      Soil      Soil      Soil      Soil      Soil  
D.F.: 1      1      1      1      1      1  
Units: mg/kg      mg/kg      mg/kg      mg/kg      mg/kg      mg/kg  
=====fl=====fl=====fl=====fl=====fl=====fl=====

Sample Information	02008B40	02008B60	02008B90	LAB DUP	02008B100	02009B10
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trans-1,2-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Butanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
1,1,1-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Carbon Tetrachloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trans-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chloroethylvinylether.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

RFW Batch Number: 8701-581 Client: LUKE AFB Page: 1

	Cust ID: 02008B40	02008B60	02008B90	02008B100	02009B10
RFW#:	0010	0020	0030	0040	0050
Tetrachloroethene.....	0.002	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene.....	NA	NA	NA	NA	NA
Total Xylenes.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-581 Client: LUKE AFB Page: 2

Sample Information	Cust ID:	02009B30	02009B70	02009B80	02010B50	02010B80	02010B90
RFW#:	0060	0070	0080	0090	0110	0120	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
D.F.:	1	1	1	1	1	1	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Acetone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trans-1,2-Dichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Butanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.052	0.033	0.033
1,1,1-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Carbon Tetrachloride.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chloroethylvinylether.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone.....	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

RFW Batch Number: 8701-581

Client: LUKE AFB

Page: 2

Cust ID: 02009B30 02009B70 02009B80 02010B50 02010B80 02010B90  
RWF#: 0060 0070 0080 0090 0110 0120

Tetrachloroethene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene.....	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-581      Client: LUKE AFB      Page: 3

Cust ID: 02010B100

RFW#: 0130

Matrix: Soil

D.F.: 1

Units: mg/kg

Sample Information	Units	mg/kg	fl	fl	fl	fl	fl
Chloromethane.....		0.001 U					fl
Bromomethane.....		0.001 U					fl
Vinyl Chloride.....		0.0005 U					fl
Chloroethane.....		0.0005 U					fl
Methylene Chloride.....		0.004 U					fl
Acetone.....		0.01 U					fl
Carbon Disulfide.....		NA					fl
1,1-Dichloroethene.....		0.0005 U					fl
1,1-Dichloroethane.....		0.0005 U					fl
Trans-1,2-Dichloroethene.....		0.0005 U					fl
Chloroform.....		0.0005 U					fl
1,2-Dichloroethane.....		0.0005 U					fl
2-Butanone.....		0.01 U					fl
1,1,1-Trichloroethane.....		0.0005 U					fl
Carbon Tetrachloride.....		0.0005 U					fl
Bromodichloromethane.....		0.0005 U					fl
1,2-Dichloropropane.....		0.0005 U					fl
Trans-1,3-Dichloropropene.....		0.0005 U					fl
Trichloroethene.....		0.0005 U					fl
Dibromochloromethane.....		0.0005 U					fl
1,1,2-Trichloroethane.....		0.0005 U					fl
Benzene.....		0.0005 U					fl
cis-1,3-Dichloropropene.....		0.0005 U					fl
2-Chloroethylvinylether.....		0.001 U					fl
Bromoform.....		0.003					fl
4-Methyl-2-pentanone.....		0.01 U					fl



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RFW Batch Number: 8701-581                      Client: LUKE AFB                      Page: 3  
=====

Cust ID: 02010B100  
RFW#: 0130

Tetrachloroethene.....	0.0005 U	fl	fl	fl	fl
1,1,2,2-Tetrachloroethane.....	0.0005 U				
Toluene.....	0.0005 U				
Chlorobenzene.....	0.0005 U				
Ethylbenzene.....	0.0005 U				
Styrene.....	NA				
Total Xylenes.....	0.0005 U				
1,2-Dichlorobenzene.....	0.001 U				
1,3-Dichlorobenzene.....	0.001 U				
1,4-Dichlorobenzene.....	0.001 U				
Trichlorofluoromethane.....	0.0005 U				
Dichlorodifluoromethane.....	0.001 U				

U=Analyzed, not detected. B=Present in blank.                      NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8701-581 Client: LUKE AFB

Sample Information	Cust ID:	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.
	RFW#:	Water	Water	Water	Water	Water	Water
	Matrix:	1	1	1	1	1	1
	D.F.:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
	Units:	fl	fl	fl	fl	fl	fl
Chloromethane.....		1 U	NRP	1 U	NRP	1 U	NRP
Bromomethane.....		1 U	NRP	1 U	NRP	1 U	NRP
Vinyl Chloride.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Chloroethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Methylene Chloride.....		4 U	NRP	4 U	NRP	4 U	NRP
Acetone.....		10 U	NRP	10 U	96 %	10 U	96 %
Carbon Disulfide.....		NA	NA	NA	NA	NA	NA
1,1-Dichloroethene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
1,1-Dichloroethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Trans-1,2-Dichloroethene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Chloroform.....		0.5 U	95 %	0.5 U	95 %	0.5 U	109 %
1,2-Dichloroethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
2-Butanone.....		10 U	NRP	10 U	NRP	10 U	NRP
1,1,1-Trichloroethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Carbon Tetrachloride.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Bromodichloromethane.....		0.5 U	95 %	0.5 U	95 %	0.5 U	105 %
1,2-Dichloropropane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Trichloroethene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Dibromochloromethane.....		0.5 U	86 %	0.5 U	86 %	0.5 U	105 %
1,1,2-Trichloroethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Benzene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
cis-1,3-Dichloropropene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
2-Chloroethylvinylether.....		1 U	NRP	1 U	NRP	1 U	NRP
Bromoform.....		2 U	NRP	2 U	NRP	2 U	NRP
4-Methyl-2-pentanone.....		10 U	NRP	10 U	NRP	10 U	NRP

Client: LUKE AFB

RFW Batch Number: 8701-581

	Cust ID:	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.
	RFW#:	BLANK	B.S.	BLANK	B.S.	BLANK	B.S.
Tetrachloroethene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
1,1,2,2-Tetrachloroethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Toluene.....		0.5 U	102 %	0.5 U	92 %	0.5 U	92 %
Chlorobenzene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Ethylbenzene.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Styrene.....		NA	NA	NA	NA	NA	NA
Total Xylenes.....		0.5 U	103 %	0.5 U	93 %	0.5 U	93 %
1,2-Dichlorobenzene.....		1 U	NRP	1 U	NRP	1 U	NRP
1,3-Dichlorobenzene.....		1 U	NRP	1 U	NRP	1 U	NRP
1,4-Dichlorobenzene.....		1 U	NRP	1 U	NRP	1 U	NRP
Trichlorofluoromethane.....		0.5 U	NRP	0.5 U	NRP	0.5 U	NRP
Dichlorodifluoromethane.....		1 U	NRP	1 U	NRP	1 U	NRP

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.



WESTON Analytics

LUKE AFB

RFWBN: 8701-581, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15 Analysis Dates: 02-05,07-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

C. P. Nulton  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

2-13-87  
DATE

WESTON Analytics

LUKE AFB

RFWBN: 8701-581, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 02-05,07-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN</u> <u>RESULTS</u>	<u>2nd COLUMN</u> <u>RESULTS</u>
8701-581-0010	Tetrachloroethene	0.002 ug/l	NO
8701-581-0110	Methyl Ethyl Ketone	0.052 ug/l	NO
8701-581-0120	Methyl Ethyl Ketone	0.033 ug/l	NO
8701-581-0130	Tetrachloroethene	0.003 ug/l	NO



Oil and Grease and Petroleum Hydrocarbon Results

Soil

1036B

DATE OF REPORT: 11/14/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10/10/86  
W.O. NUMBER: 0628-09 15

DATE SAMPLE COLLECTED: 10/8,9/86  
SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS
8610 004-0010	03-03-B005	7.60 MG/KG
0020	03 03 B010	4.00 MG/KG
-0030	03-03 B015	2.00 MG/KG
-0040	03-03-B025	2.70 MG/KG
-0050	03 03-B040	2.60 MG/KG
-0060	03 03-B080	2.00 MG/KG
-0070	03-03 B098	5.00 MG/KG
-0080	03-02-B075	2.30 MG/KG
0090	03 02-B093	3.40 MG/KG
0100	03-03-B110	268 MG/KG
-0110	03-03-B050	8.60 MG/KG
-011K	03 03 B060	370 MG/KG
011K	SPIKE RECOVERY	86.1 %
011R	REPLICATE	6.90 MG/KG
-011S	PRECISION	21.9 %
	METHOD BLANK	11.00 MG/L
	METHOD SPIKE	4.60 MG/L
	SPIKE RECOVERY	26.8 %

PREPARED BY

*Emily C. Carfagna*  
EMILY C. CARFAGNA  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY

*Earl M. Hansen*  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 12/02/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10-14-86  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 10-11-86  
SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	IGNITABILITY	
=====	=====	=====	=====
8610-019-0090	04-03-B085	NO FLASH	

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL ORGANIC HALOGEN
=====	=====	=====	=====
8610-019-0090	04-03-B085	687 MG/KG	
-0330	LEACH OF 0090		10.0 MG/KG
	METHOD BLANK	<1.00 MG/L	<1.0 MG/KG
	METHOD SPIKE	3.95 MG	7.50 MG/KG
	SPIKE RECOVERY	90.8 %	75.0 %
	METHOD SPIKE		8.70 MG/KG
	SPIKE RECOVERY		87.0 %

PREPARED BY *Emily C. Carfioli*  
EMILY C. CARFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
EARL M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS



DATE OF REPORT: 11/14/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10-17-86  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 10-16-86  
SAMPLE COLLECTED BY: DEB JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS
8610-056-0230	03-04-B005	72.3 MG/KG
-0240	03-04-B010	18.1 MG/KG
-0250	03-04-B015	15.6 MG/KG
-0260	03 04-B020	13.9 MG/KG
	METHOD BLANK	<.200 MG/L
	METHOD SPIKE	4.60 MG/L
	SPIKE RECOVERY	86.8 %

PREPARED BY

*Emily C. Carevoli*  
EMILY C. CAREVOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY

*Fari M. Hansen*  
FARI M. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 11/04/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10/21/86  
W.O. NUMBER: 0623-09-15

DATE SAMPLE COLLECTED: 10/17, 13/87

SAMPLE COLLECTED BY: CLIENT

REF ID DESCRIPTION PETROLEUM HYDROCARBONS OIL AND GREASE BY IR

REF ID	DESCRIPTION	PETROLEUM HYDROCARBONS	OIL AND GREASE BY IR
0010	03-05-B005	1.00 MG/KG	
0020	03-05-B010	1.00 MG/KG	
0030	03-05-B015	1.00 MG/KG	
0040	03-05-B020	1.00 MG/KG	
0050	03-05-B035	1.00 MG/KG	
0060	03-05-B050	1.00 MG/KG	
0090	03-05-B175	1.00 MG/KG	
0100	03-05-B075	15.6 MG/KG	
0110	03-05-B095	1.00 MG/KG	
0120	03-04-B025	1.00 MG/KG	
0130	03-04-B050	1.00 MG/KG	
0140	03-04-B070	5.00 MG/KG	
0150	03-04-B075	1.00 MG/KG	
0160	05-02-B005		1.00 MG/KG
0170	05-02-B010		1.00 MG/KG
0180	05-02-B015		1.00 MG/KG
0190	05-02-B020		1.00 MG/KG
0200	05-02-B025		1.00 MG/KG
0210	05-02-B125		27.9 MG/KG
0220	05-02-B030		1.00 MG/KG
0230	05-01-B050		1.00 MG/KG
0300	05-01-B055		1.00 MG/KG
0310	05-01-B065		12.7 MG/KG
0320	05-01-B070		1.00 MG/KG
0330	05-01-B075		27.4 MG/KG
0350	05-01-B080		1.00 MG/KG
0360	05-01-B130		1.00 MG/KG
0370	05-01-B035		1.00 MG/KG
0380	05-01-B090		1.00 MG/KG
0400	05-01-B025		1.00 MG/KG
0410	05-01-B005		3660 MG/KG
0420	05-01-B010		1.00 MG/KG
0430	05-01-B015		1.00 MG/KG
0440	05-01-B020		7.40 MG/KG
0450	05-01-B025		9.80 MG/KG
0460	05-01-B030		11.3 MG/KG
0470	05-01-B130		32.7 MG/KG
0480	05-01-B035		11.0 MG/KG
0490	05-01-B040		13.8 MG/KG
0500	05-01-B020		1.00 MG/KG

METHOD BLANK	1.00 MG/L	<1.00 MG/L
METHOD SPIKE	4.22 MG	3.77 MG
SPIKE RECOVERY	91.3 %	86.7 %
METHOD SPIKE		3.87 MG
SPIKE RECOVERY		89.7 %

PREPARED BY *Emily C. Carfoglio*  
EMILY C. CARFIOLO  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY *Earl H. Hansen*  
EARL H. HANSEN, PH.D.  
MANAGER  
WESTON ANALYTICS

DATE OF REPORT: 12/02/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10-22-86  
W.O.NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 10-20-86  
SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS	OIL AND GREASE BY IR
8610-065-0010	05-02-B035		<1.00 MG/KG
-001K	05-02-B035		442 MG/KG
-001K	SPIKE RECOVERY		102 %
-001R	REPLICATE		<1.00 MG/KG
-001S	PRECISION		NC
-0020	05-02-B040		7.00 MG/KG
-002K	05-02-B040		424 MG/KG
-002K	SPIKE RECOVERY		95.9 %
-002R	REPLICATE		6.70 MG/KG
-002S	PRECISION		4.38 %
-0030	05-02-B045		16.6 MG/KG
-003K	MATRIX SPIKE		506 MG/KG
-003K	SPIKE RECOVERY		113 %
-003R	REPLICATE		16.9 MG/KG
-003S	PRECISION		1.79 %
-0040	05-02B050		36.3 MG/KG
-0050	05-02-B055		<1.00 MG/KG
-0060	05-02-B060		<1.00 MG/KG
-0070	05-02-B065		<1.00 MG/KG
-0080	05-02-B165		<1.00 MG/KG
-0090	05-02-B070		7.80 MG/KG
-0100	05-02-B075		<1.00 MG/KG
-0120	03-06-B005	<1.00 MG/KG	
-012K	03-06-B005	483 MG/KG	
-012K	SPIKE RECOVERY	105 %	
-012R	REPLICATE	<1.00 MG/KG	
-012S	PRECISION	NC	
-0130	03-06-B010	<1.00 MG/KG	
-013K	03-06-B010	448 MG/KG	
-013K	SPIKE RECOVERY	97.4 %	
-013R	REPLICATE	<1.00 MG/KG	
-013S	PRECISION	NC	
-0140	03-06-B015	15.2 MG/KG	
-0150	03-06-B020	5.60 MG/KG	
-0170	03-06-B040	7.70 MG/KG	
-0180	03-06-B045	<1.00 MG/KG	
-0190	03-06-B145	12.8 MG/KG	
-0210	03-06-B065	17.5 MG/KG	
-0220	03-06-B080	8.80 MG/KG	
-0230	03-06-B100	19.2 MG/KG	

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS	OIL AND GREASE BY IR
-023K	03-06-B100	548 MG/KG	
-023K	SPIKE RECOVERY	99.4 %	
-023R	REPLICATE	20.5 MG/KG	
-023S	PRECISION	6.55 %	
-0240	05-02-B080		21.8 MG/KG
-024K	MATRIX SPIKE		439 MG/KG
-024K	SPIKE RECOVERY		95.9 %
-024R	REPLICATE		18.4 MG/KG
-024S	PRECISION		16.9 %
-0250	05-02-B085		28.0 MG/KG
-0260	05-02-090		36.7 MG/KG
-0270	05-02-B095		15.4 MG/KG
-0280	05-02-B098		23.2 MG/KG
	METHOD BLANK	<1.00 MG/L	<1.00 MG/L
	METHOD SPIKE	4.20 MG	3.87 MG
	SPIKE RECOVERY	91.3 %	89.0 %

PREPARED BY

*Emily C. Carpioli*  
 EMILY C. CARPIOLI  
 DATA MANAGER  
 WESTON ANALYTICS

APPROVED BY

*Earl M. Hansen*  
 EARL M. HANSEN, PH.D.  
 MANAGER  
 WESTON ANALYTICS

DATE OF REPORT: 12/02/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10-23-86  
W.O.NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 10-21-86  
SAMPLE COLLECTED BY: DEB JONES

RFWSN	DESCRIPTION	IGNITABILITY
8610-076-0440	06-01-B005-CUT	135 DEG F

RFWSN	DESCRIPTION	OIL AND GREASE BY IR
8610-076-0010	06-01-B005	5660 mg/kg
-0020	06-01-B105	3960 MG/KG
-0030	06-01-B010	10400 MG/KG
-0040	06-01-B015	2.50 MG/KG
-0050	06-01-B020	6.30 MG/KG
-0060	06-01-B025	18.5 MG/KG
-0070	06-01-B035	2.60 MG/KG
-0080	06-01-B040	13.8 MG/KG
-0090	06-01-B045	5.90 MG/KG
-0100	06-01-B050	14.8 MG/KG
-0110	06-01-B055	22.1 MG/KG
-0120	06-01-B060	3.70 MG/KG
-0130	06-01-B065	2.40 MG/KG
-0140	06-01-B070	8.60 MG/KG
-0150	06-01-B075	25.1 MG/KG
-0160	06-01-B080	211 MG/KG
-0170	06-01-B085	2.00 MG/KG
-0180	06-01-B090	28.6 MG/KG
-0190	06-01-B095	5.50 MG/KG
-0200	06-01-B100	<1.00 MG/KG
-0210	06-02-B060	1.60 MG/KG
-0230	06-02-B070	<1.00 MG/KG
-0240	06-02-B075	1.20 MG/KG
-024K	06-02-B075	150 MG/KG
-024K	SPIKE RECOVERY	103 %
-024R	REPLICATE	1.20 MG/KG
-024S	PRECISION	.000 %
-0250	06-02-B175	2.10 MG/KG
-0260	06-02-B080	3.00 MG/KG
-0270	06-02-B085	4.80 MG/KG
-0280	06-02-B090	1.90 MG/KG
-0290	06-02-B095	1.60 MG/KG
-0300	06-02-B100	2.10 MG/KG
-030R	REPLICATE	1.60 MG/KG
-030S	PRECISION	27.0 %
-0310	06-02-B005	2060 MG/KG

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL ORGANIC HALOGEN
8610-076-0320	06-02-010	18.3 MG/KG	
-0330	06-02-B015	5.70 MG/KG	
-0350	06-02-B025	<1.00 MG/KG	
-0360	06-02-B030	1.20 MG/KG	
-0370	06-02-B130	6.60 MG/KG	
-0380	06-02-B035	278 MG/KG	
-0390	06-02-B040	1.40 MG/KG	
-0400	06-02-B045	1.40 MG/KG	
-0410	06-02-B050	2.00 MG/KG	
-0420	06-02-B055	7.00 MG/KG	
-0430			16.0 MG/KG
-0440	0010 CUTTINGS	5440 mg/kg	
	METHOD BLANK	<1.00 MG/L	<1.0 MG/KG
	METHOD SPIKE	378 MG	103 MG/KG
	SPIKE RECOVERY	86.9 %	103 %
	METHOD SPIKE		99.0 MG/KG
	SPIKE RECOVERY		99.0 %

PREPARED BY *Emily C. Carpioli*  
 EMILY C. CARPIOLI  
 DATA MANAGER  
 WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
 EARL M. HANSEN, PH.D.  
 MANAGER  
 WESTON ANALYTICS

DATE OF REPORT: 12/02/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10-24-86  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 10-22-86  
SAMPLE COLLECTED BY: . DEB JONES

RFWSN	DESCRIPTION	IGNITABILITY
8610-090-0460	06-04-B040 CUT	140 DEG F

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL ORGANIC HALOGEN
8610-090-0010	06-03-B005	<1.0 mg/kg	
-0020	06-03-B010	1.70 mg/kg	
-0030	06-03-B015	13.9 mg/kg	
-0040	06-03-B115	<1.0 mg/kg	
-0050	06-03-B020	<1.0 mg/kg	
-0060	06-03-B025	10.6 mg/kg	
-0070	06-03-B030	<1.0 mg/kg	
-0080	06-03-B035	1.50 mg/kg	
-0090	06-03-B040	9.30 mg/kg	
-0100	06-03-B045	<1.0 mg/kg	
-0110	06-03-B050	9.20 mg/kg	
-011K	MATRIX SPIKE	148 mg/kg	
-011K	SPIKE RECOVERY	59.6 %	
-0120	06-03-B055	16.1 mg/kg	
-012R	REPLICATE	19.9 mg/kg	
-012S	PRECISION	21.1 %	
-0130	06-03-B060	3.60 mg/kg	
-0140	06-03-B065	13.2 mg/kg	
-0150	06-03-B070	8.50 mg/kg	
-0160	06-03-B075	11.9 mg/kg	
-0170	06-03-B080	7.20 mg/kg	
-0180	06-03-B085	12.9 mg/kg	
-0190	06-03-B090	92.8 mg/kg	
-0210	06-03-B095	117 mg/kg	
-0220	06-03-B098	18.5 mg/kg	
-0230	06-04-B005	1.80 mg/kg	
-0240	06-04-B010	<1.0 mg/kg	
-024K	06-04-B010	259 mg/kg	
-024K	SPIKE RECOVERY	111 %	
-0250	06-04-B015	2.90 mg/kg	
-025R	REPLICATE	3.30 mg/kg	
-025S	PRECISION	12.9 %	
-0260	06-04-B020	13.6 mg/kg	
-0270	06-04-B025	61.2 mg/kg	
-0280	06-04-B030	15.7 mg/kg	
-0290	06-04-B035	22.3 mg/kg	
-0300	06-04-B130	12.1 mg/kg	
-0310	06-04-B040	163 mg/kg	

RFWSN	DESCRIPTION	OIL AND GREASE BY IR	TOTAL ORGANIC HALOGEN
-0320	06-04-B045	92.3 mg/kg	
-0330	06-04-B050	1.90 mg/kg	
-0340	06-04-B055	124 mg/kg	
-0350	06-04-B060	9.90 mg/kg	
-0360	06-04-B065	8.40 mg/kg	
-0370	06-04-B070	78.2 mg/kg	
-0380	06-04-B170	2.64 mg/kg	
-0390	06-04-B075	276 mg/kg	
-0400	06-04-B080	3.50 mg/kg	
-0410	06-04-B085	92.3 mg/kg	
-0420	06-04-B090	124 mg/kg	
-0430	06-04-B095	329 mg/kg	
-0440	0604-B100	201 mg/kg	
-0450			17.0 MG/KG
-0460	0310 CUTTINGS	104 mg/kg	
-046K	MATRIX SPIKE	205 mg/kg	
-046K	SPIKE RECOVERY	86.0 %	
-046R	REPLICATE	138 mg/kg	
-046S	PRECISION	28.5 %	
	METHOD BLANK	<1.0 mg/kg	<1.0 MG/KG
	METHOD SPIKE		9.40 MG/KG
	SPIKE RECOVERY		94.0 %
	METHOD SPIKE	235 mg/kg	
	SPIKE RECOVERY	99.2 %	

PREPARED BY  
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 DATA MANAGER  
 WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
 \_\_\_\_\_  
 EARL M. HANSEN, PH.D.  
 MANAGER  
 WESTON ANALYTICS



DATE OF REPORT: 11/14/86

CLIENT: LUKE AFB  
DATA SUMMARY REPORT FOR  
SAMPLES RECEIVED: 10/9/86  
W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 10/7-8/86  
SAMPLE COLLECTED BY: DER JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS
8610-998-0010	03-01-R005	2.40 MG/KG
-0020	03-01-R010	8.70 MG/KG
-0030	03-01-R015	6.40 MG/KG
-0040	03-01-R025	4.90 MG/KG
-0050	03-01-B040	2.60 MG/KG
-0060	03-02-B005	3.10 MG/KG
0070	03-02-B010	4.20 MG/KG
-0080	03-02-R015	5.20 MG/KG
-0090	03-02-B020	2.70 MG/KG
-0100	03-02-B105	3.00 MG/KG
0110	03-02-B035	2.80 MG/KG
-0120	03-02-R055	2.70 MG/KG
-0130	03-01-R065	1.40 MG/KG
-0140	03-01-R098	2.90 MG/KG
014K	03-01-B098	351 MG/KG
-014K	SPIKE RECOVERY	82.9 %
-014R	REPLICATE	3.20 MG/KG
-014S	PRECISION	9.84 %
	METHOD BLANK	<.200 MG/L
	METHOD CHECK	5.30 MG/L
	SPIKE RECOVERY	86.9 %

PREPARED BY

*Emily C. Caputo*  
EMILY C. CARPULLI  
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APPROVED BY

*Earl M. Hansen*  
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**Metals Results**

**Soil**

**1036B**

CLIENT: LUKE 004  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 10, 1986  
UNITS: MG/KG

RFMSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	MS	NI	PB	SB	SE	TL	ZN
8610-004-0120	04-01-8005	<2.0	6.6	0.7	2.8	22	25	<0.1	20	<20	<6.0	<0.4	<1.0	47
8610-004-0130	04-01-8010	<2.0	3.3	0.5	2.6	20	16	<0.1	17	<20	<6.0	<0.4	<1.0	35
8610-004-0140	04-01-8015	<2.0	8.2	0.9	4.0	33	17	<0.1	25	<20	<6.0	<0.4	<1.0	52
8610-004-0150	04-01-8020	<2.0	14	0.7	1.1	17	19	<0.1	11	<20	<6.0	<0.4	<1.0	28
8610-004-0160	04-01-8025	<2.0	2.6	0.7	3.5	27	26	<0.1	24	<20	<6.0	<0.4	<1.0	54
8610-004-0170	04-01-8035	<2.0	0.8	<0.4	0.6	9.8	23	<0.1	7.1	<20	<6.0	<0.4	<1.0	23
8610-004-0180	04-01-8045	<2.0	3.4	0.7	1.9	29	20	<0.1	20	<20	<6.0	<0.4	<1.0	44
8610-004-0190	04-01-8055	<2.0	2.0	<0.4	1.5	20	18	<0.1	14	<20	<6.0	<0.4	<1.0	23
8610-004-0190 D	DUPLICATE *	<2.0	2.0	0.5	1.6	26	13	<0.1	16	<20	<6.0	<0.4	<1.0	25
8610-004-0190 MS	MATRIX SPIKE *	24%	89%	82%	86%	77%	94%	104%	85%	111%	6.7%	14%	92%	82%
	BLANK	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<4.0	<20	<6.0	<0.4	<1.0	<2.0
	BLANK SPIKE #1	30%	102%	90%	88%	96%	93%	100%	94%	87%	125%	66%	96%	96%
	BLANK SPIKE #2	30%	102%	88%	84%	93%	NA	100%	94%	107%	118%	61%	92%	NA

H-468

NA- NOT APPLICABLE

\* 8610-004-0150 was run as the duplicate and matrix spike for Cu and Zn only

PREPARED BY *Emily C. Carfoglio*  
EMILY C. CARFOGLIO  
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WESTON ANALYTICS

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CLIENT: LIKE 019  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 14, 1986  
UNITS: MG/G

REFNUM	DESCRIPTION	AG	AS	BE	CD	CR	CU	MG	NI	PB	SB	SE	TL	ZN
	BLANK 01	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<4.0	<20	<6.0	<0.4	<1.0	<2.0
	BLANK 02	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<4.0	<20	<6.0	<0.4	<1.0	<2.0
	BLANK SPIKE 01	861	1171	861	741	851	941	991	851	1121	1271	1181	791	1501
	BLANK SPIKE 02	871	1191	881	761	881	941	991	841	1131	1271	1231	851	951
	BLANK SPIKE 03	871	1171	881	741	881	941	911	861	1141	1191	1271	831	961
8610-019-0010	04-02-8040	<2.0	2.7	<0.4	2.2	19	12	<0.1	15	<20	<6.0	<0.4	<1.0	37
8610-019-0040	04-02-8083	<2.0	4.5	0.7	3.7	49	34	<0.1	30	<20	<6.0	<0.4	<1.0	73
8610-019-0050	04-02-8095	<2.0	3.2	<0.4	3.1	42	21	<0.1	21	<20	<6.0	<0.4	<1.0	46
8610-019-0060	04-02-8195	<2.0	3.1	0.5	3.6	42	24	<0.1	26	<20	<6.0	<0.4	<1.0	56
8610-019-0100	04-01-8075	<2.0	1.4	<0.4	1.4	25	9.1	<0.1	9.9	<20	<6.0	<0.4	<1.0	19
8610-019-0100 B	DUPLICATE	<2.0	2.1	<0.4	1.8	30	10	<0.1	11	<20	<6.0	<0.4	<1.0	22
8610-019-0100 MS	MATRIX SPIKE	861	1011	811	801	1101	1031	NA	851	741	81	711	611	1041
8610-019-0120	04-01-8095	<2.0	2.7	<0.4	3.3	22	24	<0.1	25	<20	<6.0	<0.4	<1.0	60
8610-019-0160	04-02-8005	<2.0	3.4	<0.4	2.6	16	23	<0.1	16	<20	<6.0	<0.4	<1.0	40
8610-019-0150	04-02-8010	<2.0	4.2	<0.4	2.4	18	16	<0.1	18	<20	<6.0	<0.4	<1.0	38
8610-019-0160	04-02-8015	<2.0	4.8	0.6	3.2	47	25	<0.1	24	<20	<6.0	<0.4	<1.0	45
8610-019-0170	04-02-8020	<2.0	4.4	1.0	3.7	22	21	<0.1	25	<20	<6.0	<0.4	<1.0	40
8610-019-0180	04-02-8025	<2.0	2.8	<0.4	1.3	13	11	<0.1	9.3	<20	<6.0	<0.4	<1.0	19
8610-019-0190	04-02-8035	<2.0	5.4	<0.4	2.1	40	23	<0.1	18	<20	<6.0	<0.4	<1.0	45
8610-019-0200	04-02-8045	<2.0	4.5	<0.4	2.0	31	25	<0.1	21	<20	<6.0	<0.4	<1.0	178
8610-019-0220	04-03-8005	<2.0	2.7	<0.4	1.8	14	26	<0.1	14	<20	<6.0	<0.4	<1.0	46
8610-019-0220 D	DUPLICATE	<2.0	3.0	<0.4	3.2	29	44	<0.1	30	<20	<6.0	<0.4	<1.0	63
8610-019-0220 MS	MATRIX SPIKE	871	851	841	791	831	821	921	791	451	81	571	551	561
86	0710	1.0	0	0	2.5			<0.1			<6.0			65

CLIENT: LUKE 019  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 14, 1986  
UNITS: MG/KG

RFMSH	DESCRIPTION	AG	AS	BE	CD	CR	CU	MG	NI	PB	SO	SE	TL	ZN
8610-019-0240	04-03-8010	<2.0	2.0	<0.4	3.0	18	16	<0.1	19	<20	<6.0	<0.4	<1.0	39
8610-019-0250	04-03-8020	<2.0	24	1.0	4.1	24	19	<0.1	40	<20	<6.0	<0.4	<1.0	50
8610-019-0260	04-03-8025	<2.0	3.7	<0.4	2.4	29	12	<0.1	14	<20	<6.0	<0.4	<1.0	27
8610-019-0270	04-03-8035	<2.0	1.7	<0.4	1.3	16	18	<0.1	12	<20	<6.0	<0.4	<1.0	28
8610-019-0280	04-03-8045	<2.0	6.7	<0.4	2.1	28	17	<0.1	21	<20	<6.0	<0.4	<1.0	38
8610-019-0290	04-03-8060	<2.0	1.9	<0.4	2.1	31	39	<0.1	15	<20	<6.0	<0.4	<1.0	41
8610-019-0310	04-03-8080	<2.0	2.5	<0.4	3.0	30	47	<0.1	23	<20	<6.0	<0.4	<1.0	231
8610-019-0320	04-03-8125	<2.0	3.0	<0.4	1.4	27	14	<0.1	13	<20	<6.0	<0.4	<1.0	28

H-470

\* 8610-019-0310 was run as the duplicate and matrix spike for Hg only

PREPARED BY *Emily C. Carlioli*  
EMILY C. CARLIOLI  
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WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
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MANAGER  
WESTON ANALYTICS

*Environmental*

CLIENT: LUKE 019  
REPORT SUMMARY FOR LEACHATE SAMPLE  
RECEIVED OCTOBER 14, 1986  
UNITS: US/L

RFWSN	DESCRIPTION	A6	A5	B4	C0	CR	PB	SE	H6
8610-019-0330	04-03-8085	<10	<10	1058	<10	<50	<20	<10	<1.0
8610-019-0330 D	DUPLICATE	<10	<10	709	<10	<50	<20	<10	NA
8610-019-0330 MS	MATRIX SPIKE	90Z	97Z	116Z	111Z	97Z	110Z	69Z	NA
	BLANK	<10	<10	<200	<10	<50	<20	<10	<1.0
	BLANK SPIKE	100Z	110Z	105Z	122Z	108Z	108Z	120Z	90Z

H-471

PREPARED BY *Emily C. Carfioli*  
EMILY C. CARFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY *Earl M. Hansen*  
EARL M. HANSEN, Ph. D.  
MANAGER  
WESTON ANALYTICS

CLIENT: LUKE 024  
REPORT SUMMARY FOR SOIL SAMPLES  
RECEIVED OCTOBER 15, 1986  
UNITS: MG/KG

APFSN	DESCRIPTION	AS	MS	BE	ED	EP	CP	CU	MS	MI	PS	SB	SE	TL	JM
0610-024-0010	04-04-8005	2.0	3.7	0.6	3.6	27	27	27	0.1	20	270	6.0	0.4	11.0	4
0610-024-0020	04-04-8010	2.0	4.2	0.5	3.0	18	14	14	0.1	16	270	6.0	0.4	11.0	30
0610-024-0030	04-04-8015	2.0	3.2	0.6	2.7	46	17	17	0.1	13	270	6.0	0.4	11.0	34
0610-024-0040	04-04-8020	2.0	7.3	0.4	1.9	19	19	19	0.1	9.8	270	6.0	0.4	11.0	26
0610-024-0050	04-04-8025	2.0	3.0	0.5	2.8	26	14	14	0.1	11	270	6.0	0.4	11.0	30
0610-024-0070	04-04-8035	2.0	1.8	0.4	2.1	24	12	12	0.1	10	270	6.0	0.4	11.0	23
0610-024-0080	04-04-8045	2.0	2.8	0.4	2.4	48	32	32	0.1	12	270	6.0	0.4	11.0	27
0610-024-0090	04-04-8060	2.0	1.1	0.4	1.2	9.8	16	16	0.1	12	270	6.0	0.4	11.0	27
0610-024-0100	04-04-8160	2.0	0.4	0.4	1.6	15	26	26	0.1	6.0	270	6.0	0.4	11.0	21
0610-024-0110	04-05-8005	2.0	4.9	0.5	2.9	21	24	24	0.1	18	270	6.0	0.4	11.0	41
0610-024-0120	04-05-8010	2.0	3.5	0.5	3.2	22	21	21	0.1	17	270	6.0	0.4	11.0	40
0610-024-0130	04-05-8015	2.0	2.6	0.4	2.7	20	15	15	0.1	15	270	6.0	0.4	11.0	29
0610-024-0140	04-05-8020	2.0	3.2	0.4	1.0	16	9.2	9.2	0.1	8.0	270	6.0	0.4	11.0	11
0610-024-0150	04-05-8025	2.0	6.3	0.4	1.9	16	14	14	0.1	8.2	270	6.0	0.4	11.0	24
0610-024-0160	04-05-8035	2.0	1.5	0.4	1.6	21	20	20	0.1	8.0	270	6.0	0.4	11.0	20
0610-024-0170	04-05-8045	2.4	7.8	0.8	2.9	46	27	27	0.1	20	270	6.0	0.4	11.0	47
0610-024-0190	04-05-8065	2.0	2.2	0.4	5.0	30	16	16	0.1	13	270	6.0	0.4	11.0	28
0610-024-0200	04-05-8095	2.0	2.8	0.5	2.9	21	30	30	0.1	18	270	6.0	0.4	11.0	45
0610-024-0220	04-05-8165	2.0	2.4	0.7	4.0	50	29	29	0.1	26	270	6.0	0.4	11.0	83
0610-024-0220 0	DUPLICATE	2.0	1.8	0.4	1.9	23	15	15	0.1	12	270	6.0	0.4	11.0	27
0610-024-0220 MS	HAIRLINE SPIKE	581	781	841	681	1021	831	941	941	841	941	81	91	931	831
	BLANK SPIKE 01	841	1031	921	761	951	1071	1041	941	1101	1101	1121	771	941	1071
	BLANK SPIKE 02	921	1051	921	782	981	1082	991	961	1061	1061	1041	491	921	961
	BLANK	2.0	0.4	0.4	1.0	2.0	4.0	4.0	0.1	4.0	270	6.0	0.4	11.0	2.0

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PREPARED BY  
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EARL M. HANSEN, PH. D.

CLIENT: LUKE 047  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 17, 1986  
UNITS: MG/KG

RFWSH	DESCRIPTION	AS	BE	CD	CR	CU	MG	NI	PB	SB	SE	TL	ZN	
8610-047-0010	04-05-B080	<2.0	1.9	<0.4	1.1	18	15	<0.1	12	<20	<6.0	<0.4	<1.0	30
8610-047-0020	04-06-B005	<2.0	5.1	0.6	2.7	24	25	<0.1	19	<20	<6.0	<0.4	<1.0	41
8610-047-0030	04-06-B010	<2.0	4.1	0.7	2.7	27	28	<0.1	21	<20	<6.0	<0.4	<1.0	52
8610-047-0040	04-06-B015	<2.0	6.0	0.6	2.2	22	15	<0.1	13	<20	<6.0	<0.4	<1.0	41
8610-047-0050	04-06-B020	<2.0	3.0	<0.4	<1.0	23	16	<0.1	6.0	<20	<6.0	<0.4	<1.0	15
8610-047-0060	04-06-B025	<2.0	1.1	<0.4	<1.0	13	8.2	<0.1	<4.0	<20	<6.0	<0.4	<1.0	10
8610-047-0070	04-06-B035	<2.0	1.2	<0.4	<1.0	11	12	<0.1	4.9	<20	<6.0	<0.4	<1.0	8.9
8610-047-0080	04-06-B045	<2.0	2.8	0.7	2.4	36	20	<0.1	19	<20	<6.0	<0.4	<1.0	40
8610-047-0090	04-06-B060	<2.0	1.4	<0.4	1.8	26	19	<0.1	13	<20	<6.0	<0.4	<1.0	28
8610-047-0100	04-06-B080	<2.0	2.0	<0.4	<1.0	19	18	<0.1	13	<20	<6.0	<0.4	<1.0	23
8610-047-0100 D	DUPLICATE *	<2.0	2.2	<0.4	1.7	23	19	<0.1	13	<20	<6.0	<0.4	<1.0	28
8610-047-0100 MS	MATRIX SPIKE *	44%	69%	86%	108%	118%	88%	98%	97%	107%	6.7%	34%	64%	83%
8610-047-0110	04-06-B098	<2.0	1.2	<0.4	1.0	14	18	<0.1	11	<20	<6.0	<0.4	<1.0	35
8610-047-0120	04-06-B120	<2.0	2.7	<0.4	<1.0	20	12	<0.1	4.9	<20	<6.0	<0.4	<1.0	17
8610-047-0130	04-07-B005	<2.0	4.6	0.5	2.6	21	32	<0.1	16	<20	<6.0	<0.4	<1.0	52
8610-047-0140	04-07-B010	<2.0	3.1	0.6	3.1	23	29	<0.1	16	<20	<6.0	<0.4	<1.0	54
8610-047-0150	04-07-B015	<2.0	2.2	<0.4	<1.0	9.0	21	<0.1	7.5	<20	<6.0	<0.4	<1.0	23
8610-047-0160	04-07-B020	<2.0	8.4	<0.4	<1.0	12	16	<0.1	5.5	<20	<6.0	<0.4	<1.0	16
8610-047-0170	04-07-B025	<2.0	3.7	<0.4	1.2	19	18	<0.1	10	<20	<6.0	<0.4	<1.0	34
8610-047-0180	04-07-B035	<2.0	1.1	<0.4	<1.0	10	22	<0.1	<4.0	<20	<6.0	<0.4	<1.0	18
8610-047-0190	04-07-B045	<2.0	2.6	<0.4	1.4	26	27	<0.1	9.0	<20	<6.0	<0.4	<1.0	24
8610-047-0200	04-07-B145	<2.0	2.4	<0.4	<1.0	9.9	21	<0.1	4.1	<20	<6.0	<0.4	<1.0	18
8610-047-0200 D	DUPLICATE **	<2.0	2.6	<0.4	<1.0	8.7	23	<0.1	4.6	<20	<6.0	<0.4	<1.0	20
8610-047-0200 MS	MATRIX SPIKE **	27%	69%	86%	102%	88%	110%	99%	90%	108%	39%	58%	83%	86%



CLIENT: LUKE 047  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 17, 1986  
UNITS: MG/KG

REFSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	HG	NI	PB	SB	SE	TL	ZN
8610-047-0210	04-05-B095	<2.0	1.2	<0.4	1.4	10	36	<0.1	9.2	<20	<6.0	<0.4	<1.0	56
8610-047-0220	04-04-B080	<2.0	2.0	<0.4	1.7	27	15	<0.1	9.8	<20	<6.0	<0.4	<1.0	29
8610-047-0230	04-04-B100	<2.0	2.3	0.5	2.0	22	24	<0.1	18	<20	<6.0	<0.4	<1.0	49
	BLANK #1	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<4.0	<20	<6.0	<0.4	<1.0	2.1
	BLANK #2	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<4.0	<20	<6.0	<0.4	<1.0	<1.0
	BLANK SPIKE #1	24%	105%	90%	80%	95%	104%	104%	93%	110%	103%	113%	79%	95%
	BLANK SPIKE #2	36%	99%	90%	82%	97%	100%	104%	94%	94%	111%	105%	85%	97%
	BLANK SPIKE #3	36%	97%	92%	78%	96%	104%	104%	92%	96%	105%	104%	83%	96%

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\*8610-047-0090 was run as the duplicate and matrix spike for Hg  
\*\*8610-047-0230 was run as the duplicate and matrix spike for Hg

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CLIENT: LUKE 05A  
REPORT SUMMARY FOR SOLID SAMPLE.  
RECEIVED OCTOBER 17, 1986  
UNITS: MG/KG

REF ID	DESCRIPTION	AS	AG	BE	CO	CR	CU	MS	NI	PB	SD	SE	TL	ZN
	BLANK 01	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<0.1	<20	<6.0	<0.4	<1.0	<2.0
	BLANK 01	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<0.1	<20	<6.0	<0.4	<1.0	<2.0
	BLANK SPIKE 01	531	891	941	761	891	941	1001	881	1471	1131	641	991	1001
	BLANK SPIKE 02	601	911	941	781	891	941	1101	911	1071	1131	671	1031	1051
	BLANK SPIKE 03	481	931	941	781	891	941	1101	891	1041	1171	661	1011	1041
B610-056-0010	04-08-0005	<2.0	3.3	<0.4	1.8	11	15	<0.1	11	<20	<6.0	<0.4	<1.0	31
B610-056-0020	04-08-0010	<2.0	1.8	<0.4	<1.0	8.7	9.4	<0.1	7.5	<20	<6.0	<0.4	<1.0	51
B610-056-0030	04-08-0015	<2.0	1.1	<0.4	<1.0	13	7.0	<0.1	5.5	<20	<6.0	<0.4	<1.0	23
B610-056-0040	04-08-0020	<2.0	1.1	<0.4	<1.0	6.2	7.6	<0.1	<0.1	<20	<6.0	<0.4	<1.0	12
B610-056-0050	04-08-0025	<2.0	1.5	<0.4	9.4	12	8.5	<0.1	7.4	<20	<6.0	<0.4	<1.0	41
B610-056-0060	04-08-0042	<2.0	2.0	<0.4	<1.0	10	12	<0.1	5.4	<20	<6.0	<0.4	<1.0	24
B610-056-0080	04-08-0050	<2.0	1.6	<0.4	1.1	12	11	<0.1	10	<20	<6.0	<0.4	<1.0	83
B610-056-0090	04-08-0060	<2.0	1.0	<0.4	<1.0	7.6	9.3	<0.1	4.0	<20	<6.0	<0.4	<1.0	29
B610-056-0090 B	DUPLICATE	<2.0	1.0	<0.4	<1.0	6.4	9.4	<0.1	4.0	<20	<6.0	<0.4	<1.0	19
B610-056-0090 MS	MATRIX SPIKE	301	771	921	941	931	1041	NA	941	431	411	341	411	931
B610-056-0100	04-08-0075	<2.0	1.5	<0.4	<1.0	20	4.9	<0.1	<0.1	<20	<6.0	<0.4	<1.0	12
B610-056-0110	04-08-0095	<2.0	1.8	<0.4	1.5	11	17	<0.1	11	<20	<6.0	<0.4	<1.0	30
B610-056-0120	04-08-0110	<2.0	1.8	<0.4	<1.0	9.1	9.1	<0.1	7.1	<20	<6.0	<0.4	<1.0	31
B610-056-0130	04-09-0005	<2.0	3.1	<0.4	<1.0	7.1	8.0	<0.1	5.0	<20	<6.0	<0.4	<1.0	22
B610-056-0140	04-09-0010	<2.0	1.8	<0.4	<1.0	5.5	14	<0.1	4.5	<20	<6.0	<0.4	<1.0	20
B610-056-0150	04-09-0015	2.9	2.0	<0.4	2.0	15	9.6	<0.1	13	<20	<6.0	<0.4	<1.0	21
B610-056-0160	04-09-0020	2.7	1.7	<0.4	<1.0	17	6.6	<0.1	5.4	<20	<6.0	<0.4	<1.0	47
B610-056-0170	04-09-0025	4.6	0.9	<0.4	1.8	8.5	10	<0.1	13	<20	<6.0	<0.4	<1.0	19
B610-056-0180	04-09-0035	3.0	0.9	<0.4	<1.0	5.9	12	<0.1	6.4	<20	<6.0	<0.4	<1.0	12

CLIENT: LUKE 056  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 17, 1986  
UNITS: MG/KG

REFSN	DESCRIPTION	AS	AS	BE	CD	CR	CU	MS	NI	PB	SB	SE	IL	ZN
8610-056-0190	04-09-8050	<2.0	1.3	<0.4	1.1	14	7.6	<0.1	8.4	<20	<6.0	<0.4	<1.0	18
8610-056-0200	04-07-8060	<2.0	1.3	<0.4	1.5	10	12	<0.1	9.2	<20	<6.0	<0.4	<1.0	27
8610-056-0210	04-07-8080	2.8	0.7	<0.4	1.1	6.1	6.1	<0.1	8.5	<20	<6.0	<0.4	<1.0	12
8610-056-0220	04-07-8100	3.4	1.6	<0.4	1.6	9.7	1.6	<0.1	14	<20	<6.0	<0.4	<1.0	20
8610-056-0220 D	DUPLICATE	3.2	1.5	<0.4	1.9	13	16	<0.1	15	<20	<6.0	<0.4	<1.0	27
8610-056-0220 MS	MATRIX SPIKE	162	682	742	482	722	902	1022	652	852	122	462	952	782

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APPROVED BY *Earl N. Hansen*  
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MANAGER  
WESTON ANALYTICS

CLIENT: LUKE 063  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 21, 1986  
UNITS: MG/KG

RFWSN	DESCRIPTION	AS	BS	CD	CR	CU	HS	MI	FB	SB	SE	TL	IM
8610-063-0160	05-02-8005	2.0	1.0	0.4	1.8	15	16	0.1	15	20	0.4	1.0	26
8610-063-0170	05-02-8010	2.0	1.2	0.4	3.3	24	15	0.1	19	20	0.4	1.0	29
8610-063-0180	05-02-8015	2.0	0.6	0.4	1.3	17	13	0.1	12	20	0.4	1.0	17
8610-063-0190	05-02-8020	2.0	2.1	0.4	2.3	43	12	0.1	13	20	0.4	1.0	22
8610-063-0200	05-02-8025	2.0	2.6	0.4	2.3	26	13	0.1	14	20	0.4	1.0	22
8610-063-0210	05-02-8125	2.0	2.5	0.4	2.1	26	12	0.1	15	20	0.4	1.0	23
8610-063-0220	05-02-8030	2.0	1.2	0.4	1.7	25	18	0.1	16	20	0.4	1.0	20
8610-063-0250	04-09-8090	2.0	1.4	0.4	2.2	19	23	0.1	20	20	0.4	1.0	42
8610-063-0260	04-09-8190	2.0	0.9	0.4	2.0	15	17	0.1	20	20	0.4	1.0	36
8610-063-0270	04-09-8100	2.0	1.1	0.4	1.6	16	16	0.1	16	20	0.4	1.0	40
8610-063-0280	04-09-8061	2.0	1.5	0.4	2.8	26	16	0.1	20	20	0.4	1.0	33
8610-063-0290	05-01-8050	2.0	1.2	0.5	2.8	29	17	0.1	21	20	0.4	1.0	32
8610-063-0300	05-01-8055	2.0	0.6	0.5	2.3	31	16	0.1	20	20	0.4	1.0	50
8610-063-0300 D	DUPLICATE *	2.0	0.4	0.4	1.7	24	15	0.1	19	20	0.4	1.0	40
8610-063-0300 MS	MATRIX SPIKE *	521	282	862	662	832	862	982	812	1302	112	42	792
8610-063-0310	05-01-8065	2.0	0.4	0.4	1.2	31	13	0.1	11	20	0.4	1.0	13
8610-063-0320	05-01-8070	2.0	1.3	0.5	2.7	31	19	0.1	22	20	0.4	1.0	42
8610-063-0330	05-01-8075	2.0	1.6	0.7	3.1	37	21	0.1	26	20	0.4	1.0	39
8610-063-0350	05-01-8080	2.0	0.5	0.4	1.0	8.2	8.3	0.1	7.2	20	0.4	1.0	14
8610-063-0360	05-01-8180	2.0	0.4	0.4	1.0	6.9	21	0.1	19	25	0.4	1.0	17
8610-063-0370	05-01-8085	2.0	1.3	0.4	1.4	19	19	0.1	21	20	0.4	1.0	35
8610-063-0380	05-01-8090	2.0	1.2	0.5	2.7	29	30	0.1	23	20	0.4	1.0	31
8610-063-0400	05-01-8095	2.0	2.1	0.7	4.0	40	36	0.1	33	20	0.4	1.0	49
8610-063-0410	05-01-8005	2.0	0.6	0.4	1.7	18	14	0.1	15	20	0.4	1.0	28

CLIENT: LUKE 063  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 21, 1986  
UNITS: MG/KG

RFMSN	DESCRIPTION	AS	MS	FE	CO	CR	CU	MG	NI	PB	SB	SE	TL	ZN
8610-063-0420	05-01-8010	2.0	0.5	0.4	2.4	22	16	0.1	18	20	6.0	0.4	1.0	31
8610-063-0430	05-01-8015	2.0	0.4	0.4	1.0	30	18	0.1	11	20	6.0	0.4	1.0	20
8610-063-0440	05-01-8020	2.0	4.0	0.4	1.0	19	14	0.1	7.4	20	6.0	0.4	1.0	13
8610-063-0450	05-01-8025	2.0	14	0.5	2.6	27	16	0.1	17	20	6.0	0.4	1.0	22
8610-063-0450 0	DUPLICATE **	2.0	13	0.4	1.5	20	14	0.1	14	20	6.0	0.4	1.0	22
8610-063-0450 MS	MATRIX SPIKE **	48%	50%	80%	90%	85%	84%	90%	81%	NA	29%	20%	38%	80%
8610-063-0460	05-01-8030	2.0	3.4	0.4	1.4	47	14	0.1	13	20	6.0	0.4	1.0	31
8610-063-0470	05-01-8030	2.0	5.6	0.4	1.4	43	27	0.1	15	20	6.0	0.4	1.0	28
8610-063-0480	05-01-8035	2.0	1.5	0.4	1.0	26	14	0.1	14	20	6.0	0.4	1.0	20
8610-063-0490	05-01-8040	2.0	9.5	0.4	2.2	34	16	0.1	21	20	6.0	0.4	1.0	28
8610-063-0500	05-01-8045	2.0	13	0.6	3.1	36	25	0.1	23	20	6.0	0.4	1.0	49
	BLANK #1	2.0	0.4	0.4	1.0	2.0	4.0	0.1	4.0	20	6.0	0.4	1.0	2.0
	BLANK #2	2.0	0.4	0.4	1.0	2.0	4.0	0.1	4.0	20	6.0	0.4	1.0	2.0
	BLANK SPIKE #1	66%	46%	90%	92%	103%	99%	100%	106%	108%	65%	135%	91%	99%
	BLANK SPIKE #2	66%	47%	90%	92%	100%	98%	110%	103%	106%	65%	124%	91%	94%
	BLANK SPIKE #3	66%	49%	94%	94%	103%	102%	110%	105%	112%	68%	127%	80%	95%
	BLANK SPIKE #4	68%	NA	92%	90%	101%	98%	110%	103%	NA	65%	NA	84%	NA

\* 8610-063-0180 was run in duplicate and spiked for Hg

\*\* 8610-063-0330 was run in duplicate and spiked for Hg

8610-063-0200 was run in duplicate and spiked for Zn

NA- Not Applicable

PREPARED BY Emily C. Carfioli  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY Earl M. Hansen, Ph. D.  
MANAGER  
WESTON ANALYTICS

CLIENT: LUKE 065  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 22, 1986  
UNITS: MG/KG

REFSN	DESCRIPTION	AG	AS	BE	CB	CC	CU	MG	NI	PB	SD	SE	TL	ZN
8610-065-0010	05-02-B075	2.0	1.8	0.4	2.9	23	16	0.11	13	20	6.0	0.4	1.0	29
8610-065-0020	05-02-B040	2.0	3.5	0.4	2.7	36	17	0.14	12	20	6.0	0.4	1.0	29
8610-065-0030	05-02-B045	2.0	4.4	0.5	3.1	33	18	1.6	14	20	6.0	0.4	1.0	37
8610-065-0040	05-02-B050	2.0	3.1	0.5	3.7	32	23	0.12	19	20	6.0	0.4	1.0	43
8610-065-0050	05-02-B055	2.0	1.6	0.5	2.8	25	17	1.8	16	20	6.0	0.4	1.0	38
8610-065-0060	05-02-B060	2.0	0.4	0.4	3.1	34	23	0.20	16	20	6.0	0.4	1.0	33
8610-065-0070	05-02-B065	2.0	1.3	0.4	1.6	13	9.7	0.1	6.6	20	6.0	0.4	1.0	15
8610-065-0080	05-02-B165	2.0	1.1	0.4	1.2	11	9.6	0.16	5.5	20	6.0	0.4	1.0	15
8610-065-0090	05-02-B070	2.0	2.1	0.4	2.0	26	25	0.1	11	20	6.0	0.4	1.0	30
8610-065-0100	05-02-B075	2.0	2.9	0.4	3.3	46	20	0.1	21	20	6.0	0.4	1.0	44
8610-065-0210	05-02-B080	2.0	2.9	0.4	1.4	10	17	0.1	7.5	20	6.0	0.4	1.0	20
8610-065-0250	05-02-B085	2.0	2.7	0.4	2.2	14	20	0.1	16	20	6.0	0.4	1.0	41
8610-065-0260	05-02-B090	2.0	3.9	0.4	2.0	16	14	0.1	13	20	6.0	0.4	1.0	30
8610-065-0270	05-02-B095	2.0	4.8	0.4	3.4	27	21	0.1	21	20	6.0	0.4	1.0	41
8610-065-0280	05-02-B098	2.0	5.1	0.7	4.8	36	34	0.1	31	20	6.0	0.4	1.0	62
8610-065-0280 B	DUPLICATE	2.0	7.0	0.6	3.9	29	34	0.1	26	20	6.0	0.4	1.0	64
8610-065-0280 MS	MATRIX SPIKE	521	562	822	621	842	711	1001	871	2001	9.41	301	1001	751
	BLANK SPIKE 01	541	981	881	801	961	1021	971	931	1471	1071	191	961	951
	BLANK SPIKE 02	541	971	901	821	961	1071	951	971	1121	1061	241	971	981
	BLANK	2.0	0.4	0.4	1.0	0.2	4.0	0.1	4.0	20	6.0	0.4	1.0	2.8

NC-NOT CALCULABLE, SAMPLE LEVEL > 4X SPIKE LEVEL

PREPARED BY Emily C. Carfoglio  
A.M. P.

APPROVED BY Earl M. Hansen, Ph. D.  
P.R.

CLIENT: LUKE 076  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 23, 1986  
UNITS: MG/KG

REFSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	H6	NI	P8	S8	SE	TL	ZN
	BLANK #1	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.10	<4.0	<20	<6.0	<0.4	<1.0	<2.0
	BLANK #2	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.10	<4.0	<20	<6.0	<0.4	<1.0	<2.0
	BLANK SPIKE #1	84Z	83Z	92Z	92Z	94Z	92Z	94Z	94Z	87Z	103Z	97Z	81Z	93Z
	BLANK SPIKE #2	82Z	79Z	92Z	92Z	95Z	93Z	110Z	94Z	90Z	108Z	100Z	82Z	93Z
	BLANK SPIKE #3	84Z	94Z	92Z	90Z	94Z	93Z	110Z	93Z	90Z	101Z	100Z	84Z	93Z
	BLANK SPIKE #4	82Z	92Z	92Z	90Z	96Z	92Z	112Z	95Z	90Z	111Z	97Z	79Z	94Z
8610-076-0010	06-01-B005	<2.0	1.5	0.5	2.5	23	16	<0.11	18	<20	<6.0	<0.4	<1.0	53
8610-076-0020	06-01-B105	<2.0	1.2	<0.4	2.1	15	17	<0.11	15	<20	<6.0	<0.4	<1.0	31
8610-076-0030	06-01-B010	<2.0	2.0	0.5	2.6	17	16	<0.11	21	<20	<6.0	<0.4	<1.0	43
8610-076-0040	06-01-B015	<2.0	1.7	0.4	2.8	19	17	<0.11	19	<20	<6.0	<0.4	<1.0	34
8610-076-0050	06-01-B020	<2.0	0.7	<0.4	1.0	7	12	<0.10	7.4	<20	<6.0	<0.4	<1.0	17
8610-076-0060	06-01-B025	<2.0	1.2	<0.4	1.7	13	10	<0.11	11	<20	<6.0	<0.4	<1.0	22
8610-076-0070	06-01-B035	<2.0	1.5	<0.4	2.1	17	13	<0.10	13	<20	<6.0	<0.4	<1.0	27
8610-076-0080	06-01-B040	<2.0	2.6	0.6	3.7	30	23	<0.11	22	<20	<6.0	<0.4	<1.0	44
8610-076-0090	06-01-B045	<2.0	2.0	0.6	3.4	23	22	<0.11	20	<20	<6.0	<0.4	<1.0	38
8610-076-0100	06-01-B050	<2.0	2.0	0.5	3.2	28	15	<0.11	17	<20	<6.0	<0.4	<1.0	36
8610-076-0110	06-01-B055	<2.0	1.4	0.4	2.4	20	16	<0.12	12	<20	<6.0	<0.4	<1.0	26
8610-076-0120	06-01-B060	<2.0	2.0	0.6	3.2	25	17	<0.11	19	<20	<6.0	<0.4	<1.0	35
8610-076-0130	06-01-B065	<2.0	1.3	<0.4	1.2	11	17	<0.10	7.6	<20	<6.0	<0.4	<1.0	18

CLIENT: LUKE 076  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 23, 1986  
UNITS: MG/KG

RFMSH	DESCRIPTION	AG	AS	BE	CD	CR	CU	HG	NI	PB	SB	SE	TL	ZN
8610-076-0140	06-01-B070	<2.0	1.2	<0.4	1.5	14	13	<0.12	8.7	<20	<6.0	<0.4	<1.0	18
8610-076-0150	06-01-B075	<2.0	0.9	<0.4	1.2	8	20	<0.10	10	<20	<6.0	<0.4	<1.0	21
8610-076-0160	06-01-B080	N	N	N	N	N	N	N	N	N	N	N	N	N
8610-076-0170	06-01-B085	<2.0	2.2	0.4	2.7	18	24	<0.11	19	<20	<6.0	<0.4	<1.0	36
8610-076-0180	06-01-B090	<2.0	4.5	0.8	5.2	28	29	<0.12	32	<20	<6.0	<0.4	<1.0	52
8610-076-0190	06-01-B095	<2.0	2.3	0.6	3.8	22	27	<0.10	24	<20	<6.0	<0.4	<1.0	45
8610-076-0200	06-01-B100	<2.0	1.9	0.6	4.2	26	28	<0.12	31	<20	<6.0	<0.4	<1.0	56
8610-076-0210	06-02-B060	<2.0	2.3	0.5	2.8	23	15	<0.11	17	<20	<6.0	<0.4	<1.0	30
8610-076-0230	06-02-B070	<2.0	2.0	0.5	2.7	21	18	<0.11	18	<20	<6.0	<0.4	<1.0	35
8610-076-0240	06-02-B075	<2.0	1.7	0.4	3.0	27	22	1.3	18	<20	<6.0	<0.4	<1.0	34
8610-076-0250	06-02-B175	<2.0	1.3	<0.4	2.4	20	15	<0.14	16	<20	<6.0	<0.4	<1.0	29
8610-076-0250 D	DUPLICATE *	<2.0	0.9	0.5	3.0	25	20	<0.12	18	<20	<6.0	<0.4	<1.0	35
8610-076-0250 MS	MATRIX SPIKE *	78%	20%	86%	80%	87%	93%	96%	87%	68%	18%	11%	78%	83%
8610-076-0260	06-02-B080	<2.0	1.6	0.5	3.3	33	21	<0.11	23	<20	<6.0	<0.4	<1.0	41
8610-076-0270	06-02-B085	<2.0	1.6	0.5	3.1	20	20	<0.11	20	<20	<6.0	<0.4	<1.0	37
8610-076-0280	06-02-B090	<2.0	3.3	0.9	4.9	29	34	<0.12	39	<20	<6.0	<0.4	<1.0	62
8610-076-0290	06-02-B095	<2.0	1.4	0.5	3.4	18	20	<0.11	24	<20	<6.0	<0.4	<1.0	44
8610-076-0300	06-02-B100	<2.0	1.1	0.5	3.2	18	33	<0.11	22	<20	<6.0	<0.4	<1.0	45
8610-076-0310	06-02-B005	<2.0	1.8	<0.4	2.1	13	11	<0.11	12	<20	<6.0	<0.4	<1.0	24



CLIENT: LUKE 076  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 23, 1986  
UNITS: MG/KG

REFSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	MG	NI	PB	SP	SE	TL	ZN
8610-076-0320	06-02-8010	<2.0	2.0	0.5	3.4	20	18	<0.11	20	<20	<6.0	<0.4	<1.0	42
8610-076-0330	06-02-8015	<2.0	1.3	<0.4	1.9	14	13	<0.10	14	<20	<6.0	<0.4	<1.0	27
8610-076-0350	06-02-8025	<2.0	0.6	<0.4	<1.0	5.0	13	<0.11	5.6	<20	<6.0	<0.4	<1.0	16
8610-076-0350 D	DUPLICATE **	<2.0	0.7	<0.4	<1.0	5.2	16	<0.11	5.2	<20	<6.0	<0.4	<1.0	16
8610-076-0350 MS	MATRIX SPIKE **	642	692	862	982	872	822	902	842	682	352	332	602	792
8610-076-0360	06-02-8030	<2.0	1.5	<0.4	2.0	12	14	<0.10	14	<20	<6.0	<0.4	<1.0	26
8610-076-0370	06-02-8030	<2.0	1.2	<0.4	2.0	13	16	<0.10	13	<20	<6.0	<0.4	<1.0	25
8610-076-0380	06-02-8035	<2.0	1.3	0.5	2.9	18	17	<0.10	20	<20	<6.0	<0.4	<1.0	35
8610-076-0390	06-02-8040	<2.0	1.5	0.5	3.4	22	17	<0.11	20	<20	<6.0	<0.4	<1.0	38
8610-076-0400	06-02-8045	<2.0	1.5	<0.4	2.3	14	14	<0.12	15	<20	<6.0	<0.4	<1.0	29
8610-076-0410	06-02-8050	<2.0	1.9	<0.4	1.5	8.1	7.4	<0.11	9.5	<20	<6.0	<0.4	<1.0	17
8610-076-0420	06-02-8055	<2.0	2.0	0.4	2.6	23	14	<0.11	16	<20	<6.0	<0.4	<1.0	29

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\* 8610-076-0110 was run in duplicate and spiked for Hg  
\*\* 8610-076-0300 was run in duplicate and spiked for Hg  
M-missing sample

PREPARED BY Emily C. Carfoglio  
DATA MANAGER  
WESTON ANALYTICAL

APPROVED BY Mike Tolan  
EARL M. HANSEN, Ph. D.  
MANAGER

*Earl Torrey*

CLIENT: LUKE 076  
REPORT SUMMARY FOR LEACHATE SAMPLES  
RECEIVED OCTOBER 23, 1986  
UNITS: UG/L

RFMSN	DESCRIPTION	A6	AS	BA	CO	CR	PB	SE	H6
8610-076-0430	06-01-8005	<10	<10	720	11	<50	<20	<10	<1.0
	BLANK	<10	<10	<200	<10	<50	<20	<10	<1.0
	BLANK SPIKE #1	94%	110%	105%	118%	108%	116%	117%	90%

H-483

PREPARED BY *Emily C. Carfioli*  
EMILY C. CARFIOLI  
DATA MANAGER  
WESTON ANALYTICS

APPROVED BY *Earl Torrey*  
EARL M. HANGEN, Ph. D.  
MANAGER  
WESTON ANALYTICS

CLIENT: LUVE 090  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 24, 1986  
UNITS: MG/KG

RYMSN	DESCRIPTION	AS	BE	CD	CR	CU	NI	PB	SP	SE	TL	ZN	MG	
8610-090-0010	06-03-8005	<2.0	2.1	<0.4	1.3	11	20	8.1	<20	<6.0	<0.4	<1.0	23	<0.10
8610-090-0020	06-03-8010	<2.0	1.6	<0.4	1.5	12	18	10	<20	<6.0	<0.4	<1.0	23	0.20
8610-090-0030	06-03-8015	<2.0	0.8	<0.4	<1.0	3.6	16	3.6	<20	<6.0	<0.4	<1.0	12	<0.10
8610-090-0040	06-03-8115	<2.0	1.0	<0.4	<1.0	7.1	14	6.0	<20	<6.0	<0.4	<1.0	17	<0.10
8610-090-0050	06-03-8020	<2.0	2.2	<0.4	1.4	13	15	9.6	<20	<6.0	<0.4	<1.0	22	<0.11
8610-090-0060	06-03-8025	<2.0	1.9	<0.4	1.0	7.2	20	7.3	<20	<6.0	<0.4	<1.0	21	<0.10
8610-090-0070	06-03-8030	<2.0	2.4	<0.4	2.1	15	21	12	<20	<6.0	<0.4	<1.0	26	<0.11
8610-090-0080	06-03-8035	<2.0	2.0	<0.4	1.6	17	16	12	<20	<6.0	<0.4	<1.0	27	<0.11
8610-090-0090	06-03-8040	<2.0	2.0	<0.4	1.9	14	16	11	<20	<6.0	<0.4	<1.0	26	0.14
8610-090-0100	06-03-8045	<2.0	1.6	<0.4	1.1	10	11	5.6	<20	<6.0	<0.4	<1.0	17	0.11
8610-090-0110	06-03-8050	<2.0	1.9	<0.4	1.7	12	13	7.8	<20	<6.0	<0.4	<1.0	21	<0.11
8610-090-0120	06-03-8055	<2.0	1.1	<0.4	1.4	19	19	6.6	<20	<6.0	<0.4	<1.0	22	<0.11
8610-090-0130	06-03-8060	<2.0	3.3	<0.4	2.5	15	18	13	<20	<6.0	<0.4	<1.0	28	<0.12
8610-090-0140	06-03-8065	<2.0	1.6	<0.4	2.0	16	14	8.7	<20	<6.0	<0.4	<1.0	21	<0.12
8610-090-0150	06-03-8070	<2.0	1.2	<0.4	1.0	11	10	4.8	<20	<6.0	<0.4	<1.0	14	0.11
8610-090-0150 D	DUPLICATE *	<2.0	1.7	<0.4	1.2	12	16	4.9	<20	<6.0	<0.4	<1.0	17	<0.13
8610-090-0150 MS	MATRIX SPIKE *	622	972	862	982	992	972	892	652	852	47	942	882	992
8610-090-0160	06-03-8075	<2.0	4.0	0.6	6.3	37	37	26	<20	<6.0	<0.4	<1.0	51	<0.13
8610-090-0170	06-03-8080	<2.0	2.1	<0.4	2.3	18	16	9.7	<20	<6.0	<0.4	<1.0	27	<0.11
8610-090-0180	06-03-8085	<2.0	5.7	0.8	6.5	39	75	33	<20	<6.0	<0.4	<1.0	75	0.32
8610-090-0190	06-03-8090	<2.0	1.7	<0.4	1.7	12	13	7.7	<20	<6.0	<0.4	<1.0	23	0.12
8610-090-0210	06-03-8095	<2.0	2.1	<0.4	2.8	16	20	14	<20	<6.0	<0.4	<1.0	34	<0.11
8610-090-0220	06-03-8098	<2.0	2.1	<0.4	3.0	18	27	14	<20	<6.0	<0.4	<1.0	37	<0.11
8610-090-0230	06-04-8005	<2.0	2.8	<0.4	2.1	13	14	10	<20	<6.0	<0.4	<1.0	26	<0.12

CLIENT: LUVE 090  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 24, 1986  
UNITS: MG/KG

REFSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	NI	PB	SB	SE	TL	ZN	H6
8610-090-0240	06-04-8010	<2.0	3.1	<0.4	3.0	17	18	14	<20	<6.0	<0.4	<1.0	34	<0.11
8610-090-0250	06-04-8015	<2.0	1.1	<0.4	<1.0	4.1	12	13	<20	<6.0	<0.4	<1.0	3.1	<0.11
8610-090-0250 D	DUPLICATE	<2.0	1.2	<0.4	<1.0	4.3	9.8	3.2	<20	<6.0	<0.4	<1.0	12	NA
8610-090-0250 MS	MATRIX SPIKE	772	1102	902	1102	1022	1002	932	772	232	52	892	902	NA
8610-090-0260	06-04-8020	<2.0	1.6	<0.4	<1.0	4.9	8.4	2.9	<20	<6.0	<0.4	<1.0	12	0.34
8610-090-0270	06-04-8025	<2.0	2.3	<0.4	2.5	15	13	10	<20	<6.0	<0.4	<1.0	29	<0.11
8610-090-0280	06-04-8030	<2.0	2.9	0.4	3.3	20	20	14	<20	<6.0	<0.4	<1.0	38	<0.11
8610-090-0290	06-04-8035	<2.0	2.1	0.5	3.1	20	20	15	<20	<6.0	<0.4	<1.0	35	<0.11
8610-090-0300	06-04-8130	<2.0	2.6	<0.4	3.2	22	20	13	<20	<6.0	<0.4	<1.0	38	<0.11
8610-090-0310	06-04-8040	<2.0	2.3	<0.4	2.0	21	13	8.6	<20	<6.0	<0.4	<1.0	23	0.10
8610-090-0320	06-04-8045	<2.0	3.7	0.5	3.7	23	24	18	<20	<6.0	<0.4	<1.0	44	<0.12
8610-090-0330	06-04-8050	<2.0	3.0	<0.4	2.7	20	18	10	<20	<6.0	<0.4	<1.0	30	<0.11
8610-090-0340	06-04-8055	<2.0	2.3	<0.4	2.5	15	18	13	<20	<6.0	<0.4	<1.0	30	<0.12
8610-090-0350	06-04-8060	<2.0	2.5	<0.4	2.1	13	14	9.1	<20	<6.0	<0.4	<1.0	23	0.27
8610-090-0350 D	DUPLICATE	<2.0	2.5	<0.4	2.3	15	14	9.8	<20	<6.0	<0.4	<1.0	24	0.25
8610-090-0350 MS	MATRIX SPIKE	742	822	942	1002	912	922	852	592	752	02	782	862	842
8610-090-0360	06-04-8065	<2.0	2.2	<0.4	2.8	20	15	13	<20	<6.0	<0.4	<1.0	28	<0.11
8610-090-0370	06-04-8070	<2.0	1.2	<0.4	2.3	13	15	7.7	<20	<6.0	<0.4	<1.0	22	<0.11
8610-090-0380	06-04-8170	<2.0	1.6	<0.4	1.2	12	19	6.6	<20	<6.0	<0.4	<1.0	23	<0.11
8610-090-0390	06-04-8075	<2.0	2.0	<0.4	2.1	26	16	11	<20	<6.0	<0.4	<1.0	26	<0.11
8610-090-0400	06-04-8080	<2.0	1.7	<0.4	1.7	17	17	7.2	<20	<6.0	<0.4	<1.0	24	<0.11
8610-090-0410	06-04-8085	<2.0	1.2	<0.4	1.0	8.7	12	5.3	<20	<6.0	<0.4	<1.0	18	<0.10
8610-090-0420	06-04-8090	<2.0	2.0	<0.4	2.0	18	20	10	<20	<6.0	<0.4	<1.0	28	0.15
8610-090-0430	06-04-8095	<2.0	2.0	<0.4	2.5	20	20	2	<20	<6.0	<0.4	<1.0	28	<0.10

CLIENT: LUKE 090  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 24, 1986  
UNITS: MG/KG

RFMSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	NI	PB	SB	SE	IL	ZN	HG
8610-090-0440	06-04-B100	<2.0	2.3	<0.4	3.7	23	25	17	<20	<6.0	<0.4	<1.0	44	<0.11
	BLANK #1	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<4.0	<20	<6.0	<0.4	<1.0	<2.0	<0.10
	BLANK #2	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<4.0	<20	<6.0	<0.4	<1.0	<2.0	<0.10
	BLANK #3	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<4.0	<20	<6.0	<0.4	<1.0	<2.0	<0.10
	BLANK SPIKE #1	74%	107%	90%	86%	88%	105%	88%	84%	70%	32%	95%	92%	95%
	BLANK SPIKE #2	70%	107%	90%	86%	89%	104%	88%	86%	69%	34%	89%	89%	100%
	BLANK SPIKE #3	72%	105%	92%	88%	88%	106%	86%	83%	65%	32%	94%	90%	105%
	BLANK SPIKE #4	74%	108%	92%	84%	89%	103%	88%	83%	70%	34%	94%	88%	105%
	BLANK SPIKE #5	70%	106%	92%	84%	88%	108%	88%	83%	NA	32%	95%	89%	NA

H 486

\* 8610-090-0160 was run in duplicate and spiked for Hg.

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APPROVED BY Earl M. Hansen  
EARL M. HANSEN, Ph. D.  
MANAGER  
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*E.P. Toxicity*

CLIENT: LUKE 090  
REPORT SUMMARY FOR LEACHATE SAMPLE  
RECEIVED OCTOBER 24, 1986  
UNITS: UG/L

RFMSN	DESCRIPTION	A6	A5	BA	CD	CR	H6	P8	SE	ZM
8610-090-0450	LEACHATE 0310	<10	<10	690	17	<50	<0.1	<20	<10	36
8610-090-0450 D	DUPLICATE	<10	<10	640	<10	'50	NA	<20	<10	10
8610-090-0450 MS	MATRIX SPIKE	40%	86%	87%	86%	80%	NA	72%	88%	87%
	BLANK	<10	<10	<100	<10	<10	<0.1	<20	<10	<10
	BLANK SPIKE#1	34%	94%	95%	88%	95%	110%	97%	110%	88%
	BLANK SPIKE#2	34%	90%	95%	90%	86%	110%	110%	120%	91%

NA-not applicable

H-487

PREPARED BY *Emily C. Carfio*  
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EARL M. HANSEN, Ph. D.  
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CLIENT: LUKE 099  
REPORT SUMMARY FOR SOLID SAMPLES  
RECEIVED OCTOBER 9, 1986  
UNITS: MG/KG

REFNSH	DESCRIPTION	AG	AS	BE	CD	CR	CU	HG	NI	PB	SB	SE	TL	ZN
8610-099-0010	02-01-8005	<2.0	1.3	<0.4	1.0	6.2	15	<0.1	9.3	<20	<6.0	<0.4	<1.0	18
8610-099-0020	02-01-8010	<2.0	2.1	<0.4	1.9	11	16	<0.1	15	<20	<6.0	<0.4	<1.0	26
8610-099-0030	02-01-8015	<2.0	4.6	<0.4	1.7	9.9	36	<0.1	29	<20	<6.0	<0.4	<1.0	26
8610-099-0040	02-03-8015	<2.0	2.0	<0.4	1.4	5.6	14	<0.1	12	<20	<6.0	<0.4	<1.0	21
8610-099-0050	02-03-8020	<2.0	3.3	<0.4	1.8	21	21	<0.1	16	<20	<6.0	<0.4	<1.0	25
8610-099-0050 D	DUPLICATE *	<2.0	2.3	<0.4	1.8	17	21	<0.1	17	<20	<6.0	<0.4	<1.0	40
8610-099-0050 MS	MATRIX SPIKE #	74%	62%	80%	64%	58%	72%	91%	74%	40%	2%	47%	42%	71%
8610-099-0070	02-04-8020	<2.0	4.4	<0.4	1.8	11	21	<0.1	15	<20	<6.0	<0.4	<1.0	75
8610-099-0080	02-04-8015	<2.0	1.6	<0.4	1.5	8.3	14	<0.1	13	<20	<6.0	<0.4	<1.0	71
8610-099-0100	02-02-8005	<2.0	3.4	<0.4	2.5	16	24	<0.1	22	<20	<6.0	<0.4	<1.0	74
	BLANK	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<0.1	<4.0	<20	<6.0	<0.4	<1.0	<2.0
	BLANK SPIKE #1	78%	62%	90%	80%	89%	94%	92%	89%	102%	121%	50%	92%	95%
	BLANK SPIKE #2	68%	49%	88%	82%	89%	94%	92%	89%	102%	123%	51%	98%	95%

\* 8610-099-0010 was run as the duplicate and matrix spike for Hg

PREPARED BY  
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APPROVED BY  
*Earl M. Hansen*  
EARL M. HANSEN, Ph. D.  
MANAGER  
WESTON ANALYTICS

## WESTON ANALYTICAL

## INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0130	02-005-B030	SILVER, TOTAL	2.0	u MG/KG	2.0
		ARSENIC, TOTAL	7.8	MG/KG	1.9
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	5.2	MG/KG	0.99
		CHROMIUM, TOTAL	27	MG/KG	2.0
		COPPER, TOTAL	33	MG/KG	4.0
		MERCURY, TOTAL	0.12	u MG/KG	0.12
		NICKEL, TOTAL	24	MG/KG	4.0
		LEAD, TOTAL	31	MG/KG	20
		ANTIMONY, TOTAL	5.9	u MG/KG	5.9
		SELENIUM, TOTAL	0.38	u MG/KG	0.38
		THALLIUM, TOTAL	0.94	u MG/KG	0.94
		ZINC, TOTAL	50	MG/KG	2.0
-0150	02-005-B070	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	3.0	MG/KG	0.38
		BERYLLIUM, TOTAL	0.38	u MG/KG	0.38
		CADMIUM, TOTAL	3.7	MG/KG	0.95
		CHROMIUM, TOTAL	18	MG/KG	1.9
		COPPER, TOTAL	17	MG/KG	3.8
		MERCURY, TOTAL	0.13	u MG/KG	0.13
		NICKEL, TOTAL	15	MG/KG	3.8
		LEAD, TOTAL	28	MG/KG	19
		ANTIMONY, TOTAL	5.7	u MG/KG	5.7
		SELENIUM, TOTAL	0.38	u MG/KG	0.38
		THALLIUM, TOTAL	0.94	u MG/KG	0.94
		ZINC, TOTAL	25	MG/KG	1.9



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0170	02-005-B100	SILVER, TOTAL	1.8	u MG/KG	1.8
		ARSENIC, TOTAL	2.5	MG/KG	0.4
		BERYLLIUM, TOTAL	0.62	MG/KG	0.35
		CADMIUM, TOTAL	5.1	MG/KG	0.89
		CHROMIUM, TOTAL	41	MG/KG	1.8
		COPPER, TOTAL	31	MG/KG	3.5
		MERCURY, TOTAL	0.12	u MG/KG	0.12
		NICKEL, TOTAL	37	MG/KG	3.5
		LEAD, TOTAL	43	MG/KG	18
		ANTIMONY, TOTAL	5.3	u MG/KG	5.3
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0
		ZINC, TOTAL	51	MG/KG	1.8
		-0180	02-005-B040	SILVER, TOTAL	2.0
ARSENIC, TOTAL	7.5			MG/KG	0.78
BERYLLIUM, TOTAL	0.4			u MG/KG	0.4
CADMIUM, TOTAL	3.9			MG/KG	0.99
CHROMIUM, TOTAL	10			MG/KG	2.0
COPPER, TOTAL	70			MG/KG	4.0
MERCURY, TOTAL	0.46			MG/KG	0.11
NICKEL, TOTAL	171			MG/KG	4.0
LEAD, TOTAL	30			MG/KG	20
ANTIMONY, TOTAL	5.9			u MG/KG	5.9
SELENIUM, TOTAL	0.39			u MG/KG	0.39
THALLIUM, TOTAL	0.97			u MG/KG	0.97
ZINC, TOTAL	35			MG/KG	2.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	ICP	SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	16	UG/L	10
BLANK1		ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2
BLANK2	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK3	HG1	MERCURY, TOTAL	0.2	u UG/L	0.2
BLANK4	HG1	MERCURY, TOTAL	0.2	u UG/L	0.2

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK1	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK2	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0
BLANK3	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0
BLANK2	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/02/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-554

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK3	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0030	02-006-B20	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	3.1	MG/KG	0.39
		BERYLLIUM, TOTAL	0.37	u MG/KG	0.37
		CADMIUM, TOTAL	3.0	MG/KG	0.94
		CHROMIUM, TOTAL	19	MG/KG	1.9
		COPPER, TOTAL	19	MG/KG	3.7
		MERCURY, TOTAL	0.11	u MG/KG	0.11
		NICKEL, TOTAL	14	MG/KG	3.7
		LEAD, TOTAL	28	MG/KG	19
		ANTIMONY, TOTAL	5.6	u MG/KG	5.6
		SELENIUM, TOTAL	0.39	u MG/KG	0.39
		THALLIUM, TOTAL	0.97	u MG/KG	0.97
		ZINC, TOTAL	24	MG/KG	1.9
		-0040	02-006-B30	SILVER, TOTAL	2.0
ARSENIC, TOTAL	7.7			MG/KG	0.78
BERYLLIUM, TOTAL	0.99			MG/KG	0.4
CADMIUM, TOTAL	9.0			MG/KG	1.0
CHROMIUM, TOTAL	52			MG/KG	2.0
COPPER, TOTAL	75			MG/KG	4.0
MERCURY, TOTAL	0.13			u MG/KG	0.13
NICKEL, TOTAL	38			MG/KG	4.0
LEAD, TOTAL	72			MG/KG	20
ANTIMONY, TOTAL	6.0			u MG/KG	6.0
SELENIUM, TOTAL	0.39			u MG/KG	0.39
THALLIUM, TOTAL	0.98			u MG/KG	0.98
ZINC, TOTAL	81			MG/KG	2.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0050	02-006-B130	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	11	MG/KG	1.6
		BERYLLIUM, TOTAL	0.76	MG/KG	0.38
		CADMIUM, TOTAL	4.9	MG/KG	0.96
		CHROMIUM, TOTAL	34	MG/KG	1.9
		COPPER, TOTAL	35	MG/KG	3.8
		MERCURY, TOTAL	0.13	u MG/KG	0.13
		NICKEL, TOTAL	21	MG/KG	3.8
		LEAD, TOTAL	58	MG/KG	19
		ANTIMONY, TOTAL	5.7	u MG/KG	5.7
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	0.99	u MG/KG	0.99
		ZINC, TOTAL	52	MG/KG	1.9
-0060	02-006-B50	SILVER, TOTAL	1.7	u MG/KG	1.7
		ARSENIC, TOTAL	3.9	MG/KG	0.4
		BERYLLIUM, TOTAL	0.34	u MG/KG	0.34
		CADMIUM, TOTAL	1.9	MG/KG	0.84
		CHROMIUM, TOTAL	11	MG/KG	1.7
		COPPER, TOTAL	11	MG/KG	3.4
		MERCURY, TOTAL	0.11	u MG/KG	0.11
		NICKEL, TOTAL	9.7	MG/KG	3.4
		LEAD, TOTAL	21	MG/KG	17
		ANTIMONY, TOTAL	5.1	u MG/KG	5.1
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	0.99	u MG/KG	0.99
		ZINC, TOTAL	16	MG/KG	1.7

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0090	02-006-B100	SILVER, TOTAL	2.0	u MG/KG	2.0
		ARSENIC, TOTAL	4.9	MG/KG	0.39
		BERYLLIUM, TOTAL	0.39	u MG/KG	0.39
		CADMIUM, TOTAL	2.7	MG/KG	0.98
		CHROMIUM, TOTAL	26	MG/KG	2.0
		COPPER, TOTAL	13	MG/KG	3.9
		MERCURY, TOTAL	0.13	u MG/KG	0.13
		NICKEL, TOTAL	14	MG/KG	3.9
		LEAD, TOTAL	32	MG/KG	20
		ANTIMONY, TOTAL	5.9	u MG/KG	5.9
		SELENIUM, TOTAL	0.39	u MG/KG	0.39
		THALLIUM, TOTAL	0.97	u MG/KG	0.97
		ZINC, TOTAL	26	MG/KG	2.0
		-0100	02-007-B40	SILVER, TOTAL	1.9
ARSENIC, TOTAL	3.1			MG/KG	0.38
BERYLLIUM, TOTAL	0.39			u MG/KG	0.39
CADMIUM, TOTAL	2.6			MG/KG	0.97
CHROMIUM, TOTAL	19			MG/KG	1.9
COPPER, TOTAL	14			MG/KG	3.9
MERCURY, TOTAL	0.11			u MG/KG	0.11
NICKEL, TOTAL	11			MG/KG	3.9
LEAD, TOTAL	27			MG/KG	19
ANTIMONY, TOTAL	5.8			u MG/KG	5.8
SELENIUM, TOTAL	0.38			u MG/KG	0.38
THALLIUM, TOTAL	0.94			u MG/KG	0.94
ZINC, TOTAL	18			MG/KG	1.9

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0110	02-007-B50	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	2.6	MG/KG	0.4
		BERYLLIUM, TOTAL	0.67	MG/KG	0.38
		CADMIUM, TOTAL	5.8	MG/KG	0.96
		CHROMIUM, TOTAL	58	MG/KG	1.9
		COPPER, TOTAL	21	MG/KG	3.8
		MERCURY, TOTAL	0.11	u MG/KG	0.11
		NICKEL, TOTAL	27	MG/KG	3.8
		LEAD, TOTAL	49	MG/KG	19
		ANTIMONY, TOTAL	5.8	u MG/KG	5.8
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0
		ZINC, TOTAL	42	MG/KG	1.9
-0130	02-007-B90	SILVER, TOTAL	1.8	u MG/KG	1.8
		ARSENIC, TOTAL	2.7	MG/KG	0.39
		BERYLLIUM, TOTAL	0.35	u MG/KG	0.35
		CADMIUM, TOTAL	1.8	MG/KG	0.88
		CHROMIUM, TOTAL	12	MG/KG	1.8
		COPPER, TOTAL	9.5	MG/KG	3.5
		MERCURY, TOTAL	0.12	u MG/KG	0.12
		NICKEL, TOTAL	9.3	MG/KG	3.5
		LEAD, TOTAL	23	MG/KG	18
		ANTIMONY, TOTAL	5.3	u MG/KG	5.3
		SELENIUM, TOTAL	0.39	u MG/KG	0.39
		THALLIUM, TOTAL	0.99	u MG/KG	0.99
		ZINC, TOTAL	18	MG/KG	1.8

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0140	02-007-B100	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	9.1	MG/KG	2.0
		BERYLLIUM, TOTAL	0.65	MG/KG	0.38
		CADMIUM, TOTAL	5.9	MG/KG	0.94
		CHROMIUM, TOTAL	46	MG/KG	1.9
		COPPER, TOTAL	37	MG/KG	3.8
		MERCURY, TOTAL	0.12	u MG/KG	0.12
		NICKEL, TOTAL	27	MG/KG	3.8
		LEAD, TOTAL	59	MG/KG	19
		ANTIMONY, TOTAL	5.6	u MG/KG	5.6
		SELENIUM, TOTAL	0.39	u MG/KG	0.39
		THALLIUM, TOTAL	0.98	u MG/KG	0.98
		ZINC, TOTAL	53	MG/KG	1.9
BLANK1		SILVER, TOTAL	10	u UG/L	10
		BERYLLIUM, TOTAL	2.0	u UG/L	2.0
		CADMIUM, TOTAL	5.0	u UG/L	5.0
		CHROMIUM, TOTAL	10	u UG/L	10
		COPPER, TOTAL	20	u UG/L	20
		NICKEL, TOTAL	20	u UG/L	20
		ANTIMONY, TOTAL	30	u UG/L	30
		ZINC, TOTAL	12	UG/L	10

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	AA	ARSENIC, TOTAL	2.0	u UG/L	2.0
		LEAD, TOTAL	5.0	u UG/L	5.0
		SELENIUM, TOTAL	2.0	u UG/L	2.0
		THALLIUM, TOTAL	5.0	u UG/L	5.0
BLANK1	HG1	MERCURY, TOTAL	0.2	u UG/L	0.2

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK2	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2
BLANK3	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

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WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0
BLANK2	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0



## WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK3	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0
BLANK1	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0

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WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-578

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK2	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0
BLANK3	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
-0010	02-008-B40	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	2.7	MG/KG	0.34
		BERYLLIUM, TOTAL	0.39	u MG/KG	0.39
		CADMIUM, TOTAL	1.6	MG/KG	0.97
		CHROMIUM, TOTAL	11	MG/KG	1.9
		COPPER, TOTAL	14	MG/KG	3.9
		MERCURY, TOTAL	0.1	u MG/KG	0.1
		NICKEL, TOTAL	6.9	MG/KG	3.9
		LEAD, TOTAL	22	MG/KG	19
		ANTIMONY, TOTAL	5.8	u MG/KG	5.8
		SELENIUM, TOTAL	0.34	u MG/KG	0.34
		THALLIUM, TOTAL	0.84	u MG/KG	0.84
		ZINC, TOTAL	15	MG/KG	1.9
		-0020	02-008-B60	SILVER, TOTAL	2.0
ARSENIC, TOTAL	7.4			MG/KG	0.8
BERYLLIUM, TOTAL	0.59			MG/KG	0.39
CADMIUM, TOTAL	4.3			MG/KG	0.98
CHROMIUM, TOTAL	42			MG/KG	2.0
COPPER, TOTAL	27			MG/KG	3.9
MERCURY, TOTAL	0.13			u MG/KG	0.13
NICKEL, TOTAL	27			MG/KG	3.9
LEAD, TOTAL	49			MG/KG	20
ANTIMONY, TOTAL	5.9			u MG/KG	5.9
SELENIUM, TOTAL	0.4			u MG/KG	0.4
THALLIUM, TOTAL	0.99			u MG/KG	0.99
ZINC, TOTAL	44			MG/KG	2.0

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
-0030	02-008-B90	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	5.4	MG/KG	0.71
		BERYLLIUM, TOTAL	0.37	u MG/KG	0.37
		CADMIUM, TOTAL	1.7	MG/KG	0.93
		CHROMIUM, TOTAL	17	MG/KG	1.9
		COPPER, TOTAL	11	MG/KG	3.7
		MERCURY, TOTAL	0.26	MG/KG	0.11
		NICKEL, TOTAL	14	MG/KG	3.7
		LEAD, TOTAL	20	MG/KG	19
		ANTIMONY, TOTAL	5.6	u MG/KG	5.6
		SELENIUM, TOTAL	0.36	u MG/KG	0.36
		THALLIUM, TOTAL	0.88	u MG/KG	0.88
		ZINC, TOTAL	34	MG/KG	1.9
		-0040	02-008-B100	SILVER, TOTAL	1.8
ARSENIC, TOTAL	7.1			MG/KG	0.74
BERYLLIUM, TOTAL	0.54			MG/KG	0.36
CADMIUM, TOTAL	4.2			MG/KG	0.9
CHROMIUM, TOTAL	39			MG/KG	1.8
COPPER, TOTAL	18			MG/KG	3.6
MERCURY, TOTAL	0.11			u MG/KG	0.11
NICKEL, TOTAL	17			MG/KG	3.6
LEAD, TOTAL	38			MG/KG	18
ANTIMONY, TOTAL	5.4			u MG/KG	5.4
SELENIUM, TOTAL	0.37			u MG/KG	0.37
THALLIUM, TOTAL	0.92			u MG/KG	0.92
ZINC, TOTAL	35			MG/KG	1.8

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====		=====
-0050	02-009-B10	SILVER, TOTAL	2.0	u MG/KG	2.0
		ARSENIC, TOTAL	3.5	MG/KG	0.39
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	3.0	MG/KG	1.0
		CHROMIUM, TOTAL	14	MG/KG	2.0
		COPPER, TOTAL	18	MG/KG	4.0
		MERCURY, TOTAL	0.11	u MG/KG	0.11
		NICKEL, TOTAL	15	MG/KG	4.0
		LEAD, TOTAL	28	MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		SELENIUM, TOTAL	0.39	u MG/KG	0.39
		THALLIUM, TOTAL	0.97	u MG/KG	0.97
		ZINC, TOTAL	29	MG/KG	2.0
		-0060	02-009-B30	SILVER, TOTAL	1.9
ARSENIC, TOTAL	3.2			MG/KG	0.38
BERYLLIUM, TOTAL	0.39			u MG/KG	0.39
CADMIUM, TOTAL	1.7			MG/KG	0.97
CHROMIUM, TOTAL	9.0			MG/KG	1.9
COPPER, TOTAL	17			MG/KG	3.9
MERCURY, TOTAL	0.11			u MG/KG	0.11
NICKEL, TOTAL	8.8			MG/KG	3.9
LEAD, TOTAL	26			MG/KG	19
ANTIMONY, TOTAL	5.8			u MG/KG	5.8
SELENIUM, TOTAL	0.38			u MG/KG	0.38
THALLIUM, TOTAL	0.96			u MG/KG	0.96
ZINC, TOTAL	18			MG/KG	1.9

## WESTON ANALYTICS

## INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0070	02-009-B70	SILVER, TOTAL	2.0	u MG/KG	2.0
		ARSENIC, TOTAL	1.7	MG/KG	0.4
		BERYLLIUM, TOTAL	0.69	MG/KG	0.4
		CADMIUM, TOTAL	6.2	MG/KG	1.0
		CHROMIUM, TOTAL	52	MG/KG	2.0
		COPPER, TOTAL	41	MG/KG	4.0
		MERCURY, TOTAL	0.13	u MG/KG	0.13
		NICKEL, TOTAL	27	MG/KG	4.0
		LEAD, TOTAL	59	MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	0.99	u MG/KG	0.99
		ZINC, TOTAL	64	MG/KG	2.0
-0100	02-010-B70	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	2.6	MG/KG	0.37
		BERYLLIUM, TOTAL	0.47	MG/KG	0.38
		CADMIUM, TOTAL	3.3	MG/KG	0.95
		CHROMIUM, TOTAL	51	MG/KG	1.9
		COPPER, TOTAL	15	MG/KG	3.8
		MERCURY, TOTAL	0.12	u MG/KG	0.12
		NICKEL, TOTAL	20	MG/KG	3.8
		LEAD, TOTAL	39	MG/KG	19
		ANTIMONY, TOTAL	5.7	u MG/KG	5.7
		SELENIUM, TOTAL	0.37	u MG/KG	0.37
		THALLIUM, TOTAL	0.93	u MG/KG	0.93
		ZINC, TOTAL	30	MG/KG	1.9

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0110	02-010-B80	SILVER, TOTAL	1.9	u MG/KG	1.9
		ARSENIC, TOTAL	2.4	MG/KG	0.38
		BERYLLIUM, TOTAL	0.46	MG/KG	0.37
		CADMIUM, TOTAL	4.0	MG/KG	0.94
		CHROMIUM, TOTAL	29	MG/KG	1.9
		COPPER, TOTAL	16	MG/KG	3.7
		MERCURY, TOTAL	0.13	u MG/KG	0.13
		NICKEL, TOTAL	20	MG/KG	3.7
		LEAD, TOTAL	45	MG/KG	19
		ANTIMONY, TOTAL	5.6	u MG/KG	5.6
		SELENIUM, TOTAL	0.38	u MG/KG	0.38
		THALLIUM, TOTAL	0.93	u MG/KG	0.93
		ZINC, TOTAL	36	MG/KG	1.9
		-0120	02-010-B90	SILVER, TOTAL	1.9
ARSENIC, TOTAL	2.8			MG/KG	0.38
BERYLLIUM, TOTAL	0.39			u MG/KG	0.39
CADMIUM, TOTAL	1.9			MG/KG	0.97
CHROMIUM, TOTAL	14			MG/KG	1.9
COPPER, TOTAL	11			MG/KG	3.9
MERCURY, TOTAL	0.12			u MG/KG	0.12
NICKEL, TOTAL	12			MG/KG	3.9
LEAD, TOTAL	26			MG/KG	19
ANTIMONY, TOTAL	5.8			u MG/KG	5.8
SELENIUM, TOTAL	0.38			u MG/KG	0.38
THALLIUM, TOTAL	0.94			u MG/KG	0.94
ZINC, TOTAL	19			MG/KG	1.9

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-0130	02-010-B100	SILVER, TOTAL	2.0	u MG/KG	2.0
		ARSENIC, TOTAL	3.2	MG/KG	0.4
		BERYLLIUM, TOTAL	0.39	u MG/KG	0.39
		CADMIUM, TOTAL	2.4	MG/KG	0.98
		CHROMIUM, TOTAL	15	MG/KG	2.0
		COPPER, TOTAL	20	MG/KG	3.9
		MERCURY, TOTAL	0.12	u MG/KG	0.12
		NICKEL, TOTAL	13	MG/KG	3.9
		LEAD, TOTAL	28	MG/KG	20
		ANTIMONY, TOTAL	5.9	u MG/KG	5.9
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	0.99	u MG/KG	0.99
		ZINC, TOTAL	23	MG/KG	2.0
BLANK1	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0



WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
BLANK2	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0
BLANK3	ICP	SILVER, TOTAL	2.0	u MG/KG	2.0
		BERYLLIUM, TOTAL	0.4	u MG/KG	0.4
		CADMIUM, TOTAL	1.0	u MG/KG	1.0
		CHROMIUM, TOTAL	2.0	u MG/KG	2.0
		COPPER, TOTAL	4.0	u MG/KG	4.0
		NICKEL, TOTAL	4.0	u MG/KG	4.0
		LEAD, TOTAL	20	u MG/KG	20
		ANTIMONY, TOTAL	6.0	u MG/KG	6.0
		ZINC, TOTAL	2.0	u MG/KG	2.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK1	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0
BLANK2	AA	ARSENIC, TOTAL	0.4	u MG/KG	0.4
		SELENIUM, TOTAL	0.4	u MG/KG	0.4
		THALLIUM, TOTAL	1.0	u MG/KG	1.0

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
=====	=====	=====	=====	=====	=====
BLANK3	AA	ARSENIC, TOTAL	0.4 u	MG/KG	0.4
		SELENIUM, TOTAL	0.4 u	MG/KG	0.4
		THALLIUM, TOTAL	1.0 u	MG/KG	1.0
BLANK1	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

WESTON ANALYTICS

INORGANICS DATA SUMMARY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	DETECTION LIMIT
-----	-----	-----	-----	-----	-----
BLANK2	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2
BLANK3	HG1	MERCURY, TOTAL	0.2 u	UG/L	0.2

## WESTON ANALYTICS

INORGANICS ACCURACY REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-0010	02-008-B40	SILVER, TOTAL	3.5	4.5	MG/KG	82
		ARSENIC, TOTAL	3.9	3.6	MG/KG	32
		BERYLLIUM, TOTAL	4.0	4.5	MG/KG	88
		CADMIUM, TOTAL	6.9	4.5	MG/KG	119
		CHROMIUM, TOTAL	37	18	MG/KG	149
		COPPER, TOTAL	38	22	MG/KG	108
		NICKEL, TOTAL	50	45	MG/KG	97
		LEAD, TOTAL	64	45	MG/KG	93
		ANTIMONY, TOTAL	2.5	8.9	MG/KG	27
		SELENIUM, TOTAL	0.63	0.9	MG/KG	79
		THALLIUM, TOTAL	4.5	4.5	MG/KG	94
		ZINC, TOTAL	60	45	MG/KG	101

## WESTON ANALYTICS

INORGANICS PRECISION REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-0010	02-008-B40	SILVER, TOTAL	1.7 u	1.7 u	NC
		ARSENIC, TOTAL	2.7	2.8	2.6
		BERYLLIUM, TOTAL	0.35u	0.35u	NC
		CADMIUM, TOTAL	1.6	2.0	24
		CHROMIUM, TOTAL	11	25	81
		COPPER, TOTAL	14	17	19
		NICKEL, TOTAL	6.9	13	63
		LEAD, TOTAL	22	23	3.1
		ANTIMONY, TOTAL	5.2 u	5.2 u	NC
		SELENIUM, TOTAL	0.38u	0.38u	NC
		THALLIUM, TOTAL	0.94u	0.94u	NC
		ZINC, TOTAL	15	18	19

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
BLANK1	LCS	SILVER, TOTAL	5.2	5.0	MG/KG	104
		BERYLLIUM, TOTAL	5.1	5.0	MG/KG	104
		CADMIUM, TOTAL	5.1	5.0	MG/KG	104
		CHROMIUM, TOTAL	20	20	MG/KG	101
		COPPER, TOTAL	26	25	MG/KG	104
		NICKEL, TOTAL	52	50	MG/KG	104
		LEAD, TOTAL	49	50	MG/KG	100
		ANTIMONY, TOTAL	8.3	10	MG/KG	83
		ZINC, TOTAL	51	50	MG/KG	102
BLANK1R	LCS	SILVER, TOTAL	4.9	5.0	MG/KG	98
		BERYLLIUM, TOTAL	5.0	5.0	MG/KG	102
		CADMIUM, TOTAL	4.9	5.0	MG/KG	100
		CHROMIUM, TOTAL	17	20	MG/KG	86
		COPPER, TOTAL	25	25	MG/KG	101
		NICKEL, TOTAL	50	50	MG/KG	100
		LEAD, TOTAL	49	50	MG/KG	100
		ANTIMONY, TOTAL	8.0	10	MG/KG	80
		ZINC, TOTAL	50	50	MG/KG	99
BLANK1T	LCS	SILVER, TOTAL	5.5	5.0	MG/KG	110
		BERYLLIUM, TOTAL	5.1	5.0	MG/KG	104
		CADMIUM, TOTAL	5.2	5.0	MG/KG	106
		CHROMIUM, TOTAL	20	20	MG/KG	101
		COPPER, TOTAL	26	25	MG/KG	103
		NICKEL, TOTAL	52	50	MG/KG	104
		LEAD, TOTAL	50	50	MG/KG	102
		ANTIMONY, TOTAL	8.8	10	MG/KG	88
		ZINC, TOTAL	51	50	MG/KG	101

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
BLANK1	LCS	ARSENIC, TOTAL	3.3	4.0	MG/KG	82
		SELENIUM, TOTAL	1.2	1.0	MG/KG	120
		THALLIUM, TOTAL	5.2	5.0	MG/KG	98
BLANK1R	LCS	ARSENIC, TOTAL	3.3	4.0	MG/KG	83
		SELENIUM, TOTAL	1.2	1.0	MG/KG	120
		THALLIUM, TOTAL	5.2	5.0	MG/KG	99



WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

CLIENT: LUKE AFB

WESTON BATCH #: 8701-581

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
BLANK1T	LCS	ARSENIC, TOTAL	3.5	4.0	MG/KG	88
		SELENIUM, TOTAL	1.3	1.0	MG/KG	130
		THALLIUM, TOTAL	5.2	5.0	MG/KG	99

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
=====	=====	=====	=====	=====	=====	=====
LCS1	HG1	MERCURY, LCS	4.2	4.0	UG/L	105
LCS2	HG1	MERCURY, LCS	3.9	4.0	UG/L	98

WESTON ANALYTICS

INORGANICS LABORATORY CONTROL STANDARDS REPORT 03/03/87

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
-----	-----	-----	-----	-----	-----	-----
LCS3	HG1	MERCURY, LCS	3.6	4.0	UG/L	90
LCS4	HG1	MERCURY, LCS	3.7	4.0	UG/L	93



VOC Results

Sediment

1036B

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-397- Client: LUKE AFB Page: 1

Sample Information	Cust ID:	BLANK		BLNK SPK		02001D001		02002D001		02003D001		02004D001	
		RFW#:	Water	ug/l	Water	ug/l	Soil	mg/kg	Soil	mg/kg	Soil	mg/kg	Soil
Chloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Methylene Chloride.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Acetone.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

RFW Batch Number: 8612-397- Client: LUKE AFB Page: 1  
 Cust ID: BLANK BLNK SPK 02001D001 02002D001 02003D001 02004D001  
 RFW#: BLANK BLNK SPK 0010 0020 0030 0040

	0010	0020	0030	0040
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	0.001 U	0.001 U	0.001 U	0.001 U
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Methyl Ethyl Ketone.....	0.002 U	0.002 U	0.002 U	0.002 U
Methyl IsoButyl Ketone.....	0.002 U	0.002 U	0.002 U	0.002 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-397-

Client: LUKE AFB

Sample Information	Cust ID: 02005D001		02006D001		02007D001		02008D001		02009D001		02010D001	
	RFW#:	0050	0060	0070	0080	0090	0100					
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromomethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Vinyl Chloride.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methylene Chloride.....	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Acetone.....	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Carbon Disulfide.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1-Dichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1-Dichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,2-Dichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroform.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,2-Dichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Butanone.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1,1-Trichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Carbon Tetrachloride.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromodichloromethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,2-Dichloropropane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,3-Dichloropropene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trichloroethene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Dibromochloromethane.....	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
1,1,2-Trichloroethane.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Benzene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
cis-1,3-Dichloropropene.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Chloroethylvinylether.....	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Bromoform.....	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
4-Methyl-2-pentanone.....	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U

RFW Batch Number: 8612-397- Client: LUKE AFB Page: 2  
 Cust ID: 02005D001 02006D001 02007D001 02008D001 02009D001 02010D001  
 RFW#: 0050 0060 0070 0080 0090 0100

	0050	0060	0070	0080	0090	0100
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl Ethyl Ketone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl IsoButyl Ketone.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 J=Present at less than detection limit. NR=Not requested.



WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-397-

Client: LUKE AFB

Cust ID: 02001D101 02006D001 02006D001

RFW#: 0110 0060 DUP 0060 MS

Matrix: Soil Soil Soil

D.F.: 1 1 1

Units: mg/kg mg/kg mg/kg

Sample Information	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	0.004 U	0.004 U
Acetone.....	0.002 U	0.002 U	0.002 U
Carbon Disulfide.....	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U
1,1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U
2-Butanone.....	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	61 §
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	0.001 U	0.001 U	0.001 U

RFW Batch Number: 8612-397- Client: LUKE AFB

Cust ID: 02001D101 02006D001 02006D001  
RFW#: 0110 0060 DUP 0060 MS

Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	0.001 U	0.001 U	0.001 U	0.001 U
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U

H-529

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
J=Present at less than detection limit. NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-433

Client: LUKE AFB

Page: 1

Sample Information	Cust ID:	BLANK	B.S.	TRIP BLANK
	RFW#:	BLANK	B.S.	0120
	Matrix:	Water	Water	Water
	D.F.:	1	1	1
	Units:	ug/l	ug/l	ug/l
Chloromethane.....	1 U	NRP		1 U
Bromomethane.....	1 U	NRP		1 U
Vinyl Chloride.....	1 U	NRP		1 U
Chloroethane.....	1 U	NRP		1 U
Methylene Chloride.....	4 U	NRP	650	
Acetone.....	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA
1,1-Dichloroethene.....	1 U	NRP		1 U
1,1-Dichloroethane.....	1 U	NRP		1 U
Trans-1,2-Dichloroethene.....	1 U	NRP		1 U
Chloroform.....	1 U	116 %		1 U
1,2-Dichloroethane.....	1 U	NRP		1 U
2-Butanone.....	NA	NA	NA	NA
1,1,1-Trichloroethane.....	1 U	NRP		1 U
Carbon Tetrachloride.....	1 U	NRP		1 U
Bromodichloromethane.....	1 U	NRP		1 U
1,2-Dichloropropane.....	1 U	NRP		1 U
Trichloroethene.....	1 U	NRP		1 U
Dibromochloromethane.....	2 U	NRP		2 U
1,1,2-Trichloroethane.....	1 U	NRP		1 U
Benzene.....	1 U	NRP		1 U
cis-1,3-Dichloropropene.....	1 U	NRP		1 U
2-Chloroethylvinylether.....	2 U	NRP		2 U
Bromoform.....	4 U	NRP		4 U
4-Methyl-2-pentanone.....	NA	NRP		NA

RFW Batch Number: 8612-433 Client: LUKE AFB

Cust ID: BLANK B.S. TRIP BLANK  
 RFW#: BLANK B.S. 0120

	fl	fl	fl	fl	fl
Tetrachloroethene.....	1 U	NRP		1 U	
1,1,2,2-Tetrachloroethane.....	1 U	NRP		1 U	
Toluene.....	1 U	NRP		1 U	
Chlorobenzene.....	1 U	NRP		1 U	
Ethylbenzene.....	1 U	NRP		1 U	
Styrene.....	NA	NA		NA	
Total Xylenes.....	1 U	NRP		1 U	
1,2-Dichlorobenzene.....	1 U	111 %		1 U	
1,3-Dichlorobenzene.....	1 U	108 %		1 U	
1,4-Dichlorobenzene.....	1 U	123 %		1 U	
Trichlorofluoromethane.....	1 U	NRP		1 U	
Dichlorodifluoromethane.....	1 U	NRP		1 U	

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-433

Client: LUKE AFB

Sample Information	Cust ID: 03001D001	03002D001	03003D001	03004D001	03005D001	03006D001
RFW#:	0020	0030	0040	0050	0060	0070
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.008	0.004 U	0.008	0.004 U	0.009	0.006
Acetone.....	NA	NA	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA	NA	NA

RFW Batch Number: 8612-433 Client: LUKE AFB Page: 2

Cust ID: 03001D001 03002D001 03003D001 03004D001 03005D001 03006D001  
 RFW#: 0020 0030 0040 0050 0060 0070

	03001D001	03002D001	03003D001	03004D001	03005D001	03006D001
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.002	0.001 U	0.004	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
 NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-433      Client: LUKE AFB      Page: 3

Cust ID: 03007D001    03008D001    03009D001    03010D001

RFW#: 0080            0090            0100            0110

Matrix: Soil            Soil            Soil            Soil

D.F.: 1                1                1                1

Units: mg/kg            mg/kg            mg/kg            mg/kg

	03007D001	03008D001	03009D001	03010D001
Chloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.006	0.007	0.007	0.005
Acetone.....	NA	NA	NA	NA
Carbon Disulfide.....	NA	NA	NA	NA
1,1-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone.....	NA	NA	NA	NA
1,1,1-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	0.004 U	0.004 U	0.004 U
4-Methyl-2-pentanone.....	NA	NA	NA	NA

H  
1  
5  
3  
4

=====  
 RFW Batch Number: 8612-433      Client: LUKE AFB      Page: 3  
 =====

Cust ID: 03007D001    03008D001    03009D001    03010D001  
 RFW#:            0080            0090            0100            0110

	0080	0090	0100	0110
Tetrachloroethene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	NA	NA	NA
Total Xylenes.....	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.002	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank.    NRP=Not Reported  
 NR=Not requested.





WESTON Analytics

LUKE AFB

RFWBN: 8612-433, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15      Analysis Date: 01-02,03-87

Attached is a summary of the second column confirmation results for the above referenced samples. All positives for this batch were submitted to second column confirmation.

Second columns were Poracil C, n-octane, 100/120 mesh, for halocarbons and 5% SP 2100/1.25% Bentone 34, 100/120 mesh for aromatic hydrocarbons.

Levels are not given, but in every instance the data were checked for reasonableness, i.e., levels found in the second column confirmation were checked for similarity to the quantification column results.

CPML  
Carter P. Nulton, Ph.D.  
Organics Section Manager  
WESTON Analytical Laboratories

2-10-87  
DATE

WESTON Analytics

LUKE AFB

RFWBN: 8612-433, VOA SECOND COLUMN CONFIRMATION

W.O. #: 0628-09-15

Analysis Dates: 01-02,03-87

SUMMARY OF  
VOA SECOND COLUMN RESULTS

<u>SAMPLE</u>	<u>COMPOUND</u>	<u>1st COLUMN RESULTS</u>	<u>2nd COLUMN RESULTS</u>
8612-433-0010	Tetrachloroethene	1.2 ug/l	NO
	Acetone	45 ug/l	NO
8612-433-0020	Methylene Chloride	7.6 ug/kg	YES
	Trichlorofluoro- methane	1.8 ug/kg	NO
8612-433-0040	Methylene Chloride	7.9 ug/kg	YES
	Trichlorofluoro- methane	3.6 ug/kg	NO
8612-433-0060	Methylene Chloride	8.5 ug/kg	YES
8612-433-0070	Methylene Chloride	6.3 ug/kg	YES
	Trichlorofluoro- methane	1.3 ug/kg	NO
8612-433-0080	Methylene Chloride	5.9 ug/kg	YES
	Trichlorofluoro- methane	1.9 ug/kg	NO
8612-433-0090	Methylene Chloride	7.1 ug/kg	YES
8612-433-0100	Methylene Chloride	6.6 ug/kg	YES
8612-433-0110	Methylene Chloride	5.2 ug/kg	YES
8612-433-0120	Methylene Chloride	650 ug/kg	YES

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-417 Client: LUKE AFB Page: 1

Sample Information	Cust ID:	B.S.	03011D001	03012D001	03013D001	03014D001
RFW#:	BLANK	B.S.	0030	0040	0050	0060
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil
D.F.:	1	1	1	1	1	1
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	fl	fl	fl	fl	fl	fl
Chloromethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl Chloride.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Methylene Chloride.....	0.004 U	109 %	0.004 U	0.004 U	0.004 U	0.004 U
1,1-Dichloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,2-Dichloroethene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform.....	0.001 U	107 %	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Tetrachloride.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane.....	0.001 U	123 %	0.001 U	0.001 U	0.001 U	0.001 U
Trans-1,3-Dichloropropene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane.....	0.002 U	124 %	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2-Trichloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Benzene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethylvinylether.....	0.002 U	NRP	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform.....	0.004 U	NRP	0.004 U	0.004 U	0.004 U	0.004 U

Client: LUKE AFB

RFW Batch Number: 8612-417

Cust ID: RWF#:	BLANK BLANK	B.S.		03012D001 0040	03013D001 0050	03014D001 0060
		03011D001 0030	03012D001 0040			
Tetrachloroethene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Total Xylenes.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	NRP	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-417 Client: LUKE AFB Page: 2

Sample Information	Cust ID:	RFW#:	Matrix:	D.F.:	Units:	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl	mg/kg	fl
Chloromethane.....	03015D001	0070	Soil	1		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromomethane.....	03016D001	0080	Soil	1		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Vinyl Chloride.....	03017D001	0090	Soil	1		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroethane.....	03018D001	0100	Soil	1		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Methylene Chloride.....	03019D001	0110	Soil	1		0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
1,1-Dichloroethene.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1-Dichloroethane.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,2-Dichloroethene.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Chloroform.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,2-Dichloroethane.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,1,1-Trichloroethane.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Carbon Tetrachloride.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromodichloromethane.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
1,2-Dichloropropane.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trans-1,3-Dichloropropene.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Trichloroethene.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Dibromochloromethane.....						0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
1,1,2-Trichloroethane.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Benzene.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
cis-1,3-Dichloropropene.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
2-Chloroethylvinylether.....						0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromoform.....						0.002	U	0.002	U	0.002	U	0.002	U	0.002	U

RFW Batch Number: 8612-417

Client: LUKE AFB

Page: 2

	Cust ID:	RFW#:	03015D001	03016D001	03017D001	03018D001	03019D001	03020D001
			0070	0080	0090	0100	0110	0120
Tetrachloroethene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Styrene.....	NA	fl	NA	NA	NA	NA	NA	NA
Total Xylenes.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane.....	0.001 U	fl	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.

WESTON ANALYTICS  
GC DATA SUMMARY  
VOLATILE COMPOUNDS

RFW Batch Number: 8612-417      Client: LUKE AFB      Page: 3

Cust ID: 03019D101  
RFW#: 0130  
Matrix: Soil  
D.F.: 1  
Units: mg/kg

Sample Information	Concentration	Units
Chloromethane	0.001	U
Bromomethane	0.001	U
Vinyl Chloride	0.001	U
Chloroethane	0.001	U
Methylene Chloride	0.004	U
1,1-Dichloroethene	0.001	U
1,1-Dichloroethane	0.001	U
Trans-1,2-Dichloroethene	0.001	U
Chloroform	0.001	U
1,2-Dichloroethane	0.001	U
1,1,1-Trichloroethane	0.001	U
Carbon Tetrachloride	0.001	U
Bromodichloromethane	0.001	U
1,2-Dichloropropane	0.001	U
Trans-1,3-Dichloropropene	0.001	U
Trichloroethene	0.001	U
Dibromochloromethane	0.002	U
1,1,2-Trichloroethane	0.001	U
Benzene	0.001	U
cis-1,3-Dichloropropene	0.001	U
2-Chloroethylvinylether	0.002	U
Bromoform	0.004	U

=====  
RfW Batch Number: 8612-417      Client: LUKE AFB      Page: 3  
=====

Cust ID: 03019D101  
RfW#: 0130

=====  
Tetrachloroethene..... 0.001 U  
1,1,2,2-Tetrachloroethane..... 0.001 U  
Toluene..... 0.001 U  
Chlorobenzene..... 0.001 U  
Ethylbenzene..... 0.001 U  
Styrene..... NA  
Total Xylenes..... 0.001 U  
1,2-Dichlorobenzene..... 0.001 U  
1,3-Dichlorobenzene..... 0.001 U  
1,4-Dichlorobenzene..... 0.001 U  
Trichlorofluoromethane..... 0.001 U  
Dichlorodifluoromethane..... 0.001 U  
=====  
f]-----f]-----f]-----f]-----f]

U=Analyzed, not detected. B=Present in blank. NRP=Not Reported  
NR=Not requested.





Petroleum Hydrocarbon and Metals Results  
Sediment

1036B

DATE OF REPORT: 01/31/87

CLIENT: LUKE AFB  
 DATA SUMMARY REPORT FOR  
 SAMPLES RECEIVED: 12-23-86  
 W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-22-86  
 SAMPLE COLLECTED BY: D. JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS	TOTAL ORGANIC CARBON
8612-417-0010	05-107-M001		3.88 MG/L
-001K	05-107-M001		8.37 MG/L
-001K	SPIKE RECOVERY		89.8 %
-001R	REPLICATE		3.88 MG/L
-001S	PRECISION		5.02 %
-0020	05-107-M101		.792 MG/L
-0030	03-011-D001	294 mg/kg	
-0040	03-012-D001	202 mg/kg	
-0050	03-013-D001	53.2 mg/kg	
-0060	03-014-D001	8.40 mg/kg	
-0070	03-015-D001	87.1 mg/kg	
-0080	03-016-D001	5.90 mg/kg	
-0090	03-017-D001	558 mg/kg	
-0100	03-018-D001	7.30 mg/kg	
-010K	MATRIX SPIKE	129 mg/kg	
-010K	SPIKE RECOVERY	99.8 %	
-010R	REPLICATE	8.20 mg/kg	
-010S	PRECISION	11.6 %	
-0110	03-019-D001	694 mg/kg	
-0120	03-020-D001	11.7 mg/kg	
-0130	03-019-D101	390 mg/kg	
	METHOD BLANK	<1.0 mg/kg	
	METHOD SPIKE	108 mg/kg	4.53 MG/L
	SPIKE RECOVERY	89.0 %	90.6 %
	METHOD SPIKE	99.2 mg/kg	
	SPIKE RECOVERY	81.5 %	

RFWSN	DESCRIPTION	OIL AND GREASE BY IR
8612-417-0010	05-107-M001	<.2 mg/l
-001K	MATRIX SPIKE	4.30 mg/l
-001K	SPIKE RECOVERY	100 %
-001R	REPLICATE	.40 mg/l
-001S	PRECISION	NC
-0020	05-107-M101	<.2 mg/l

PREPARED BY Emily C. Carfioli  
 EMILY C. CARFIOLI  
 DATA MANAGER  
 WESTON ANALYTICS

APPROVED BY Earl M. Hansen  
 EARL M. HANSEN, PH.D.  
 MANAGER  
 WESTON ANALYTICS

DATE OF REPORT: 01/30/87

CLIENT: LUKE AFB  
 DATA SUMMARY REPORT FOR  
 SAMPLES RECEIVED: 12-24-86  
 W.O. NUMBER: 0628-09-15

DATE SAMPLE COLLECTED: 12-22-86  
 SAMPLE COLLECTED BY: D. JONES

RFWSN	DESCRIPTION	PETROLEUM HYDROCARBONS	NITRATE	NITRITE
8612-433-0010	EFFLUENT 3-1 (02-003-E00)		.660 MG/L	
-001R	REPLICATE		.640 MG/L	
-001S	PRECISION		3.08 %	
-0020	03-001-D001	14400 mg/kg		
-0030	03-002-D001	5020 mg/kg		
-0040	03-003-D001	2570 mg/kg		
-0050	03-004-D001	<1.0 mg/kg		
-0060	03-005-D001	<1.0 mg/kg		
-0070	03-006-D001	<1.0 mg/kg		
-0080	03-007-D001	<1.0 mg/kg		
-0090	03-008-D001	<1.0 mg/kg		
-0100	03-009-D001	<1.0 mg/kg		
-0110	03-010-D001	8960 mg/kg		
	METHOD BLANK		<.1 MG/L	
	METHOD SPIKE		.990 MG/L	
	SPIKE RECOVERY		99 %	
	METHOD SPIKE		.990 MG/L	
	SPIKE RECOVERY		99 %	

RFWSN	DESCRIPTION	TOTAL ORGANIC CARBON	OIL AND GREASE BY IR
8612-433-0010	02-003-E001	15.8 MG/L	3.60 mg/l
	METHOD BLANK	<.5 MG/L	<.2 mg/l
	METHOD SPIKE		4.00 mg/l
	SPIKE RECOVERY		93.0 %
	METHOD SPIKE		3.70 mg/l
	SPIKE RECOVERY		86.1 %

RFWSN	DESCRIPTION	TOTAL KJELDAHL NITROGEN
8612-433-0010	<del>SAMPLE 2-1</del> 02-003-001	26.1 MG/L
	METHOD BLANK	.130 MG/L
	METHOD SPIKE	3.75 MG/L
	SPIKE RECOVERY	90.5 %
	METHOD SPIKE	3.91 MG/L
	SPIKE RECOVERY	94.5 %

PREPARED BY *Emily C. Carfioli*  
 EMILY C. CARFIOLI  
 DATA MANAGER  
 WESTON ANALYTICS

APPROVED BY *E. M. Hansen*  
 EARL M. HANSEN, PH.D.  
 MANAGER  
 WESTON ANALYTICS

CLIENT: LUKE 397  
 REPORT SUMMARY FOR SOLID SAMPLES  
 RECEIVED DECEMBER 19, 1986  
 UNITS: MG/KG

KFMSN	DESCRIPTION	AG	AS	BE	CD	CR	CU	NI	PB	SP	SE	TL	ZN	HG
8612-397-0010	02-001-0001, SIP-1	<2.0	3.4	0.6	4.7	36	26	34	<20	<6.0	<0.4	<1.0	51	<0.1
8612-397-0020	02-002-0001, SIP-2	<2.0	5.4	<0.4	1.2	6.3	11	11	<20	<6.0	<0.4	<1.0	29	0.1
8612-397-0030	02-003-0001, SIP-3	<2.0	4.8	0.8	6.2	41	53	42	22	<6.0	<0.4	<1.0	95	0.7
8612-397-0040	02-004-0001, SIP-4	<2.0	4.4	0.7	5.5	35	30	33	<20	<6.0	<0.4	<1.0	72	0.2
8612-397-0050	02-005-0001, SIP-5	<2.0	1.8	<0.4	1.2	6.6	13	13	<20	<6.0	<0.4	<1.0	21	0.1
8612-397-0060	02-006-0001, SIP-6	<2.0	4.4	<0.4	2.0	13	19	18	46	<6.0	<0.4	<1.0	34	<0.1
8612-397-0070	02-007-0001, SIP-7	<2.0	4.3	<0.4	2.0	17	21	22	<20	<6.0	<0.4	<1.0	38	<0.1
8612-397-0080	02-008-0001, SIP-8	<2.0	3.5	0.4	2.8	25	31	25	<20	<6.0	<0.4	<1.0	58	0.1
8612-397-0090	02-009-0001, SIP-9	<2.0	3.6	<0.4	2.2	17	21	18	<20	<6.0	<0.4	<1.0	43	<0.1
8612-397-0100	02-010-0001, SIP-10	3.7	2.9	0.9	6.4	50	47	36	57	<6.0	<0.4	<1.0	101	<0.2
8612-397-0110	02-001-0101, SIP-101	<2.0	2.8	0.5	4.0	31	24	30	<20	<5.0	<0.4	<1.0	48	<0.1
8612-397-0110 R	REPLICATE	<2.0	2.9	0.5	3.9	33	24	32	<20	<6.0	<0.4	<1.0	49	<0.1
8612-397-0110 S	SPIKE	75%	80%	91%	72%	78%	90%	89%	222%	16%	40%	97%	76%	96%
87A002-MB1	METHOD BLANK	<2.0	<0.4	<0.4	<1.0	<2.0	<4.0	<4.0	<20	<6.0	<0.4	<1.0	<2.0	<0.2
87A002-MB1R	L.C.S	98%	107%	96%	96%	102%	96%	99%	110%	62%	87%	102%	93%	106%

H-547

PREPARED BY EMILY C. CARFIOLI  
 DATA MANAGER  
 WESTON ANALYTICS

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 WESTON ANALYTICS

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**APPENDIX I**

**CORRESPONDENCE WITH ARIZONA REGULATORY PERSONNEL**

**1874B**

## APPENDIX I

### Communications with Arizona State Regulatory Personnel

A kick-off meeting was held on 22 September, 1986 at Luke AFB with personnel from the Base, USAFOEHL, WESTON, the Arizona Department of Health Services (ADHS) and the Arizona Department of Water Resources (ADWR) attending. A pre-drilling meeting was held at ADHS on 22 October, 1986, with personnel from Luke AFB, WESTON, the drilling subcontractor (Beylik Drilling), ADWR, and ADHS attending.

Summaries of discussions and agreements are presented below:

22 September 1986 Kick-Off Meeting

Attendees:

Lauren G. Evans	ADHS
Pak Shem	ADHS
Sandra Eberhardt	ADHS
Alan L. Roesler	ADHS
Clayton Cady	ADWR
Sherry Evans-Carmichael	ADWR
Kenneth S. Hanks	ADWR
Bob Roberson	Luke AFB - 832CES/DEEVE
Maj. Carl Eckhardt	Luke AFB - 832CSG/JA
Lt. Col. Gary A. Smith	Luke AFB - 832CSG/JA
John Forrest	Luke AFB - 832CSG/DEEV
Col. Donald S. Nash	Luke AFB - 832CSG/Deputy Base Comm.
Maj. Jess Humberd	Luke AFB - 832CSG/BEE
Robert Clark	AFRCE-WR
Lt. Jerald E. Styles	USAFOEHL/TS
Greg Hill	WESTON
Katherine Sheedy	WESTON



Synopsis:

Proposed changes to the Technical Operations Plan (TOP) were discussed, including: the use of California Ring Samplers in the split spoons, the elimination of soil sampling splits for OEHL, and changes to the drilling specifications. It was agreed that the drilling specifications as described in the TOP would be altered as follows:

<u>Previous Drilling Specification</u>	<u>Revised Drilling Specification</u>
o Use of centralizers on long string casing	o Use of wall scratchers
o Casing rotated during emplacement	o Casing not rotated



22 October Pre-Drilling Methods

Attendees:

Lauren Evans	ADHS
Pak Shem	ADHS
Clayton Cady	ADWR
Robert Fifield	ADWR
Kurt Samuelson	Beylik Drilling
Myron Gutzman	Beylik Drilling
Maj. Jess Humberd	Luke AFB
John Forrest	Luke AFB
Richard Johnson	WESTON
Greg Hill	WESTON

Synopsis:

The first portion of the meeting was a general discussion of well specifications and drilling methods. There were no points of contention or controversy. Mentioned were:

- o the use of wall scratchers
- o the "pump and chase" method of grouting

# WESTON

- o the use of air rotary drilling when feasible
- o the lack of casing rotation during grouting

Lauren Evans raised two concerns from the previous facility 993 drilling: the leakage of hydraulic fluids from the drill rig, and the handling of excess drilling fluids. It was agreed that care would be taken relative to these areas during drilling.

Greg Hill discussed water table elevations, and subsequent screen settings. Agreed upon top-of-screen elevations were as follows (reported as feet below ground surface):

Oil/Water Separator Canal	350'
POL Disposal Area	375'
South Fire Training Area	350'
North Fire Training Area	400'

All of these depths were considered approximate and subject to change based on the acquisition of field data.

It was determined that additional field measurements would be necessary at the STP Effluent Canal area prior to the



selection of the screened interval. It was agreed that Lauren Evans, Clay Cady and Greg Hill would meet at the site the week of 10/28/86 to attempt to gather depth to water data in existing irrigation wells in the vicinity.

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**APPENDIX J**

**REFERENCES**

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**APPENDIX J****REFERENCES**

Allaway, W.H., 1968. Agronomic Controls Over the Environmental Cycling of Trace Elements. In A.G. Norman (ED.) Advances in Agronomy, 20:235-274, Academic Press, New York.

Climate of the United States, 1974. Published by Water Information Center, Inc., New York. Vol. II, p. 511.

Cooper, H.H., Jr., 1963. Type Curves for Nonsteady Radial Flow in an Infinite Leaky Artesian Aquifer. In Bentall, Ray Compiler, Shortcuts and Special Problems in Aquifer Tests: USGS Water Supply Paper 1545-C, p. C48-C55.

Fetter, C.W., Jr., 1980. Applied Hydrogeology. Merrill, Columbus, Ohio, 488 pp.

Konikow, L.F., Predictive Accuracy of a Groundwater Model - Lessons from a Post Audit. Groundwater Vol. 24, No. 2, pp. 173-184.

Lohman, S.W., 1972. Groundwater Hydraulics. USGS Professional Paper 708, 70 pp.

McNeil, J.D., April 1982. Electronic Magnetic Resistivity Mapping of Contaminant Plans. Proc. 1982 Hazardous Materials Spill Conference, Milwaukee.

Pressant, E.W., 1971. Geochemistry of Iron, Manganese, Lead, Copper, Zinc, Arsenic, Antimony, Silver, Tin, and Cadmium in the Soils of the Bathurst Area, New Brunswick. Geol. Survey. Can. Bul. No. 174.

Prickett, T.A., 1965. Type Curve Solution to Aquifer Tests Under Water Table Conditions. Groundwater, Vol. 3, No. 3, pp. 5-14.

Robertson, Frederick N., 1975. Hexavalent Chromium in the Groundwater, Paradise Valley, Arizona. Groundwater Vol. 13, No. 6, pp. 516-527.

Stulik, R.S. and F.R. Twenter, 1964. Geology and Groundwater of the Luke Area. Maricopa County, Arizona, USGS Water Supply Paper, 1779p.

U.S. Department of Agriculture (USDA), 1977. Soil Survey of Maricopa County, Arizona. Soil Conservation Service.

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**APPENDIX K**  
**BIOGRAPHIES OF KEY PERSONNEL**

**1874B**



**Peter J. Marks**

**Education**

B.S. Biology, Franklin and Marshall College (1963)

M.S. Environmental Engineering and Science, Drexel University (1965)

**Employment History**

1965-Present          Weston

1963-1964          Lancaster County General Hospital  
Research laboratory for analytical  
methods development

**Relevant Experience**

Mr. Marks has 15 years experience in environmental laboratory and engineering activities as a Project Scientist, Project Engineer, Project Manager, and Vice President of Weston's environmental laboratory. He has analytical laboratory experience, supervision of source emission testing projects, and was the Project Manager on numerous source testing and ambient air monitoring projects, including a major contract with EPA for source sampling and analysis. He also has experience in field testing to determine efficiencies of control equipment, and chemical analysis of atmospheric emissions from various industries.

Mr. Marks was the Project Manager for a major corporate (65 plants) air testing contract (\$350,000/year). The plants included glass, wood, textiles, and asphalt production.

Mr. Marks' industry experience in source emissions testing includes: fossil-fuel-fired steam generators; municipal incinerators; cement plants; nitric acid plants; petroleum refineries and petrochemical plants; iron and steel plants (basic

oxygen and electric arc furnaces); wet process phosphoric acid plants; superphosphoric acid plants; diammonium phosphate plants; triple superphosphate plants; granular triple superphosphate storage facilities; intermediate size steam boilers (10-250 x 10<sup>6</sup> Btu); mercury plants; solvent degreasing facilities; steel foundries; synthetic organic chemical plants; pulp and paper mills; chlor-alkali plants; glass manufacturing facilities; stone crushing facilities; plastic plants; clay and ore processing operations.

Mr. Marks' air contaminant testing experience includes: particulates, NO<sub>x</sub>, fluorides, SO<sub>2</sub>, SO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>, chlorides, hydrocarbons, aldehydes, organic acids, total reduced sulfur, permanent gases, odor, mercury particle size, resistivity, hydrogen sulfide, chloride, ozone, metals, sulfates, vinyl chloride, solvents, TSP, and asbestos.

His field instrumentation experience includes: Orsat apparatus, Teledyne combustible instrument, Lira nondispersive infrared instrument, Servomex oxygen analyzer, Lear-Siegler transmissometer, duPont sulfur dioxide monitoring instrumentation, Anderson cascade impactor, Omega pyrometer, Meloy ozone analyzer, thermoelectron SO<sub>2</sub> analyzer, RAC Hi Voi Samplers, and RAC Nutech control console.

Mr. Marks has the following laboratory instrumentation experience: infrared, ultraviolet, and atomic absorption spectrophotometry; dissolved oxygen analyzer, gas chromatography; and total oxygen demand and total organic carbon analyzers.

Mr. Marks is a member of the Air Pollution Control Association, the American Society for Testing and Materials, the Water Pollution Control Federation, and the Water Pollution Control Association of Pennsylvania.





## Katherine A. Sheedy

### Fields of Competence

Geologic investigation and site evaluation; environmental impact assessment, quantitative and qualitative groundwater analysis, design of groundwater monitoring systems.

### Experience Summary

Nine years experience in geological investigations including environmental impact analysis in geology, groundwater, and soils; hydrogeologic investigations of hazardous waste sites, preparation and delivery of expert testimony; assessment and mitigation of low-level radioactive contamination of groundwater and soils; migration of low-level radioactive contamination of groundwater and soils; migration of radionuclides in groundwater; site stability in limestone terrains; development of evaluation criteria for site search and selection projects; pre-mine opening hydrologic investigations for surface and underground coal mines; development of clean-up strategies for hazardous and radioactive waste disposal sites; Environmental Impact Statement preparation and review; site suitability investigations of waste disposal facilities for industrial and residential developments.

### Credentials

B.A.—Queens College, CUNY (1969)

M.S., Geology—University of Delaware (1975)

American Geophysical Union

Geological Society of America

National Water Well Association, Technical Division

### Employment History

1974-Present      WESTON

1972-1974      University of Delaware

### Key Projects

Preparation of RCRA Part B permit application for facilities in the Midwest and on the West coast.

Initial Assessment Studies to identify possible contamination resulting from past practices at military installations.

Assessment of groundwater contamination from a municipal landfill in the Atlantic Coastal Plain including aquifer simulation to determine migration 10, 20 and 30 years in the future.

Hydrogeologic assessment of a multi-source military installation. The project includes groundwater modeling for the installation and for areas outside the installation in conjunction with State and Federal agencies.

Design of monitoring systems for a large industrial complex in Montana.

Assessment of regulatory requirements for hazardous waste lagoon closure in over forty states.

Assessment and analysis of emerging trends in groundwater research as applied to the utility industry.

Preparation of EPA Remedial Action Master Plans for five uncontrolled hazardous waste sites.

Principal investigator for geology, soils and groundwater portion of an Environmental Impact Statement for the decontamination of a radioactive waste disposal site in Canonsburg, Pennsylvania.

Project manager and principal investigator on clean-up of a site contaminated by pharmaceutical wastes in New Jersey.

Project manager and principal investigator for assistance in EIS preparation for five synthetic fuel plants in east-central United States.

Evaluation of environmental impact and operation of 23 municipal landfills in the Atlantic Coastal Plain.

Hydrogeologic investigations at mine sites prior to, during and after mining operations in Illinois.

Hydrogeologic investigations to determine site suitability for landfills, sewage sludge disposal, spray irrigation and industrial waste disposal.

Principal investigator on a dredge material disposal site feasibility study for Interstate Division for Baltimore City. This project was conducted to evaluate the feasibility of specific sites for disposal of 5 million cubic yards of

material dredged from the Fort McHenry Tunnel in Baltimore. The evaluation included examination of costs, engineering feasibility, site stability, impact on biology and groundwater and ultimate use of the site as an inner-city park.

Supervision of an investigation to determine groundwater quality, delineate the extent of groundwater pollution and develop a groundwater-quality management program for a six-county area. Evaluated the adequacy of existing groundwater-quality standards and interacted with regulatory agencies.

Evaluation of groundwater quality, quantity and facilities; impact on groundwater for sites in semi-arctic environments and within the Columbia River Basin Project area.

Environmental assessment for a 200,000-BPCD refinery on a semi-arid island with extensive groundwater use in the West Indies.

Evaluation of structural stability problems in limestone solution area in Pennsylvania.

Supervision of a leachate collection system and groundwater monitoring program for an industrial landfill.

Investigation of potential sources of petroleum product found to be discharging through the subsurface, at the shore of Lake Erie.

Development of a state-of-the-art study and environmental analysis of the geothermal steam industry.

### Publications

Sheedy, K. A., 1979. "Three-Phase Approach to Determination of Site Stability in Limestone". Presented at Association of Engineering Geologists 1979 Annual Meeting, Chicago, Illinois.

Sheedy, K. A., Schoenberger, R. J., Haderer, P., Dovey, R., 1979. "Solid Waste Disposal in the Coastal Plain: A Case Study." Presented at Association of Engineering Geologists 1979 Annual Meeting, Chicago, Illinois.

Sheedy, K. A., Leis, W., Thomas, A., 1980. "Land Use in Limestone Terrain. Problems and Case Study Solutions". In *Applied Geomorphology*. (The "Binghamton" symposia: 11) George Allen and Unwin, 1982.

Sheedy, K. A., Leis, W., Bopp, F., Anderson, J., "Use of Ground Penetrating Radar in Limestone Terrain". American Geographers Association, 1981.

Sheedy, K. A., "Methodology for the Selection of Low-Level Radioactive Waste Disposal Sites". American Nuclear Society, 1982.



## J. Gregory Hill, P.E.

### Registration

Registered Professional Engineer in the State of Pennsylvania.

### Fields of Competence

Geologic and hydrogeologic site evaluation; contaminant migration assessments; hazardous waste site remediation; groundwater flow system analysis; surface water hydrology.

### Experience Summary

Ten years experience in hydrogeology, environmental engineering and hydrology, including: hydrogeologic investigations of hazardous waste sites; characterization of the migration of organic chemicals in soil and groundwater systems; conducting Superfund responsible-party negotiations for U.S. Environmental Protection Agency (U.S. EPA) groundwater modeling; coal mining impacts on groundwater; deep well injection; hazardous waste site remediation; preparation and delivery of expert testimony; and teaching of professional-level seminars in contaminant hydrogeology.

### Credentials

B.A., Geology—Lafayette College (1973)

B.S., Civil Engineering—Lafayette College (1973)

M.S., Geology—Kent State University (1978)

American Institute of Professional Geologists

Association of Groundwater Scientists and Engineers.  
NWWA

### Employment History

1986-Present	WESTON
1984-1986	U.S. Environmental Protection Agency, Region III
1983-1984	Woodward-Clyde Consultants
1980-1983	SMC Martin, Inc.

1978-1980 Snell Environmental Group

1976-1978 NEFCO

### Key Projects

Project Manager for site evaluation of U.S. Air Force base in Arizona.

Project Manager for hazardous waste site characterization for a chemical company in Philadelphia.

Project Manager for remedial feasibility study at 25-acre uncontrolled hazardous waste landfill.

Project Manager for hydrogeologic investigation of I-95 construction over sludge lagoons at Phila. Southwest Wastewater Treatment Plant.

Project Manager for Bureau of Mines research project on aquifer dewatering caused by deep coal mining.

Gave seminar presentations to U.S. EPA Regions II, III, and V. Topics included groundwater monitoring, contaminant migration, and injection well technology.

Project Manager for environmental impact study of deep injection of hazardous wastes in Tennessee.

Project Geologist for Superfund site investigation at abandoned chemical plant in Ohio.

Project Hydrologist for projects including computer analysis of combined sewer overflow; involved computer modeling of urban and rural runoff, sediment transport, and stream flow.

Project Manager for investigation and remedial studies involving groundwater contamination by organic solvents at industrial site in Pennsylvania.

### Publication

Hill, J.G., and D.R. Price. "The Impact of Deep Mining on an Overlying Aquifer in Western Pennsylvania." Ground Water Monitoring Review, Vol. 3, No. 1, 1985.



## Deborah L. Jones

### Fields of Competence

Field and laboratory soils investigations; analysis of soil characteristics and suitability for specific land use purposes, groundwater contamination detection investigations, soil erosion determination and control.

### Experience Summary

Experience in soil and hydrogeological investigations including evaluation of soil erosion potential, field characterization of soils and evaluation for on-lot waste disposal, sanitary landfills, and sludge disposal; soil and groundwater sampling, soil mapping, pump test performance and analysis, geophysical surveys including use of magnetometer, ground-penetrating radar, and electromagnetic conductivity meter, air monitoring using organic vapor analyzer.

### Credentials

B.S., Environmental Resource Management—Pennsylvania State University (1981)

M.S., Environmental Pollution Control, emphasis in Agronomy — Pennsylvania State University (1983)

American Society of Agronomy

Soil Science Society of America

### Employment History

1983-Present	WESTON
1981-1983	Northeast Watershed Research Center USDA-ARS

### Key Projects

Soil evaluation to determine site suitability for a hazardous waste disposal facility and assisted in preparation of variance request.

Soil suitability investigations for on-lot waste disposal in Chester County, PA.

Evaluation of soils to determine suitability as liner material for a hazardous waste landfill in Central Illinois.

Soils and hydrogeologic investigations to determine extent of fuel oil contamination at an Air Force Base in New York.

Intensive geophysical investigations to characterize a chemical waste disposal site for a government research firm in New Mexico.

Soil sampling and evaluation to determine extent of contamination at an industrial hazardous waste storage area in New Mexico.

Soils investigations to determine extent of pesticide contamination at a storage facility in Minnesota.

Literature search to determine state-of-the-art groundwater measurement and transport modelling techniques.

### Publications

Rogowski, A.S., R.M. Khanbilvardi, and D.L. Jones. "Point Estimates of Erosion." For presentation at the 1984 summer meeting of American Society of Agricultural Engineering, University of Tennessee, Knoxville, TN, June 24-27, 1984.



## Alison L. Dunn, P.G.

### Registration

Registered Professional Geologist in the state of Virginia.

### Fields of Competence

Groundwater flow system analysis and numerical modelling; groundwater contamination assessment and remediation; hydrogeologic evaluation of solid and hazardous waste sites; water supply and recovery well design and testing; monitor well network design and implementation; sampling of soil and water for conventional and hazardous chemical compounds.

### Experience Summary

Three years experience as field hydrogeologist and project geologist in industrial and hazardous waste disposal site investigations including two Superfund sites, in IRP assessments of USAF facilities, and in inventories and assessments of various classes of injection wells. Three years of graduate research in hydraulic properties of shales and mudstones, watershed hydrology, and coastal hydrogeology, including practical applications of numerical groundwater flow models.

### Credentials

B.A., Geology—Mount Holyoke College (1976)  
M.S., Hydrogeology—University of Arizona (1981)  
American Institute of Professional Geologists  
National Water Well Association, Technical Division  
American Geophysical Union, Hydrology Division

### Employment History

1984-Present	WESTON
1981-1984	SMC Martin, Inc.
1978-1981	University of Arizona, Dept. of Hydrology Environmental Research Lab Office of Arid Land Studies

1978 (Summer) Office of the State Geologist  
Montpelier, VT

### Key Projects

Field evaluation (IRP Phase II) of potential groundwater contamination at three Air Force Bases in California, including monitor well installation and sample collection, analysis of hydrogeologic and chemical data.

Site visit and record search (IRP Phase I) at an Air Force Facility in the Mid-Atlantic Region, site identification and report preparation.

Field evaluation of fuel in groundwater at a Gulf Coast Air Force Facility, including monitor well installation, collection and analysis of hydrologic data.

Site assessment and remediation at an uncontrolled hazardous waste disposal site in New Jersey, including field sampling of highly contaminated groundwater and soils, conceptual development of site remediation measures, and testing of remedial measures on a computer groundwater flow model.

Hydrogeologic investigation of a 50-acre site for impact of past electronic components manufacturing operations on ground- and surface water.

Evaluation of the effect of placing an innovative top seal for closure of a 25-acre municipal landfill, including analysis of long-term hydrogeologic and geochemical conditions.

Site assessment and remediation at an uncontrolled hazardous waste disposal site in Ohio including a metal detector survey for buried drums, soil sampling, drilling and well construction supervision, well logging, and data analysis.

Evaluation of surface seepage from a 3-acre wastewater lagoon, including water level monitoring and a detailed water budget.

### Publications

"Trichloroethylene Occurrence and Ground-Water Restoration in Highly Anisotropic Bedrock: A Case Study." Co-author David L. Kraus, in Proceedings of the Third National Symposium and Exposition on Aquifer Restoration and Groundwater Monitoring, National Water Well Association, Columbus, OH, 1983.

"The Impact of Top-Sealing on the Windham, Connecticut Landfill." Co-authors R.M. Schuller and W.W. Beck, Jr., in Proceedings of the 9th Annual U.S. EPA MERL/SHWRD Conference, 1983.

"Leachate Quality Improvements after Top Sealing." Co-authors W.W. Beck, Jr., and G.H. Emrich, in Proceedings of the 8th Annual U.S. EPA MERL/SHWRD Conference, 1982.

"Preliminary Assessment of the Hydrologic Environment of Klamath Marsh, Oregon." Co-authors M.E. Norvelle, S.L. Vierek, and S. Ince, *NADSAT Project Completion Report No. 31*, Office of Arid Land Studies, University of Arizona, 1981, 71 p.

"A Study of Salinity in Effluent Lakes, Puerto Penasco, Sonora, Mexico." *Hydrology and Water Resources in Arizona and the Southwest*, American Water Resources Association, Arizona Section, 1981.

"Analysis of a Saline Ground-Water Flow System in Puerto Penasco, Sonora, Mexico." Presented to the Cordilleran Section Meeting of the Geological Society of America, March, 1981.

"A Bibliography of Vermont Geology." Compiled with Charles A. Ratte and Diane Vanacek, Office of the State Geologist, Montpelier, Vermont, 1980.

**WESTON**

**APPENDIX L**  
**METHODS OF GEOPHYSICAL LOG INTERPRETATIONS**

**1874B**



## APPENDIX L

### METHODS OF GEOPHYSICAL LOG INTERPRETATIONS

#### Spontaneous Potential Curve Interpretation

The deflection furthest to the right (positive) side of the SP graph is considered the shale (clay) baseline. Deflections left (negative) of this baseline are considered to represent increasing degrees of permeability. Correlation with soil borings or well cores is the primary basis for correlating a given millivolt reading to a soil or rock type. In the absence of these data, quantitative estimations are made, defining the far right deflections as "pure clay or shale" and the furthest left (negative) deflections as "pure clean sand" with some local or regional variations. An experienced log analyst can combine prior knowledge of area geology, SP log responses and correlative response of resistivity and gamma ray logs to define geologic soil or rock types on an SP log.

#### Resistivity Log Interpretation

Resistivity log analysis is reasonably straightforward. Both the 16 inch and 64 inch "normal" curves respond to formation resistance to current. Formations which are water saturated are generally lower in resistivity readings due to dissolved salts than zones invaded by "fresh" drilling fluids. Increases in resistivity or "kicks" to the right correspond to porous and permeable zones where drilling fluids have invaded zones of generally lower resistivity.

The resistivity curve is especially useful in zones where fluid salinities have not allowed spontaneous potential curve development in sands or sandy formations. Resistivity curve deflection will generally indicate these sandy conditions by infiltration "kicks".

#### Gamma Ray Log Interpretation

Gamma Ray responses are calibrated in A.P.I. (American Petroleum Institute) gamma-ray units generally on a scale of 80 to 280 units. In areas of higher natural background radiation the scale simply increases. For example, in MW-101, the scale is from 400 to 900 units.



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Quantitatively within the given scale, higher unit readings ("kicks" to the right) indicate fine grained materials and deflections to the left indicate coarser materials. As in the SP curve analysis, if split spoon samples or well cores are not available the unit responses must be approximated to the known stratigraphy of the area.

## Caliper Log Interpretation

The caliper log is very straightforward in interpretation. It simply records the minimum diameter (in inches) of the borehole. The inherent problem with the three pad tool is that if the hole is irregular and two of the pads record an annulus of 10 inches, the third will not record any measurement greater than 10 inches.



**APPENDIX M**  
**TECHNICAL OPERATIONS PLAN AND**  
**HEALTH AND SAFETY PLAN**

**INSTALLATION RESTORATION PROGRAM  
PHASE II — STAGE 2  
TECHNICAL OPERATIONS PLAN**

*FOR*

**Luke Air Force Base  
Arizona**

*PREPARED BY:*

**Roy F. Weston, Inc.  
West Chester, Pennsylvania 19380**

*August, 1986*

*PREPARED FOR:*

**HEADQUARTERS TACTICAL AIR COMMAND  
COMMAND SURGEON'S OFFICE (HQ TAC/SGPB)  
LANGLEY AIR FORCE BASE, VIRGINIA**

**UNITED STATES AIR FORCE  
OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY (USAF OEHL)  
TECHNICAL SERVICES DIVISION (TS)  
BROOKS AIR FORCE BASE, TEXAS 78235-5501**



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TECHNICAL OPERATIONS PLAN  
LUKE AIR FORCE BASE, AZ

1.0 INTRODUCTION

1.1 Purpose and Scope of Study

The purpose of this Technical Operations Plan (TOP) is to document plans for implementing Order 0015 of Contract No, F33615-84-D-4400, between Roy F. Weston, Inc. and the United States Air Force Occupational and Environmental Health Laboratory (USAFOEHL). In Order 0015 the USAFOEHL has requested that WESTON conduct an Installation Restoration Program (IRP) Phase II, Stage 2 Investigation at Luke Air Force Base, Arizona.

The purposes of this investigation are to define the magnitude and extent of soil and groundwater contamination at specified areas within the Base; to determine the rates and directions of migration of soil and ground water contamination; and to determine if there are any hazards to public health and the environment based on applicable State and Federal regulations. The scope of the investigation includes examination of five sites on Base, at which the following activities will be conducted: collection of groundwater samples from 9 existing Base production wells; soil gas analysis of the vadose zone, installation of 11 monitor wells, drilling and sampling of 27 soil borings, collection of 2 surface water samples, collection of 30 canal sediment samples, collection of 9 effluent samples and collection of three (3) rounds of groundwater samples from the newly installed monitor wells. Further detail on individual site activities is given in Section 2.

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All soil and water samples selected for analysis will be analyzed at WESTON's Laboratory facilities located in Lionville, Pennsylvania. Analytical requirements for this investigation are outlined in Section 2. All samples will be analyzed in accordance with standard USEPA Analytical protocols.

## 1.2 Installation Description and History

Luke Air Force Base (LAFB) is located in Maricopa County, AZ. The 4,198 acre Base is 13 miles west of downtown Phoenix. Construction of the Base began in March 1941, after the land had been acquired from the City of Phoenix. Occupation of the Base took place in June 1941, with the primary purpose of providing advanced flight training to fighter pilots. The primary mission of the Base today is to provide Command Supervision of the F-16 training program of the 58th Tactical Training Wing and of the F-15 and F-5 programs of the 405th Tactical Training Wing.

Past Air Force activities at the Base in support of operational missions, especially during the Korean War, have led to the occurrence of several disposal sites within the Base. Task Order 0015 requires evaluation of these sites to determine their impact on public health and the environment. The locations of these sites are shown on Figure 1-1. A brief description of each of the proposed Stage 2 sites is presented below:

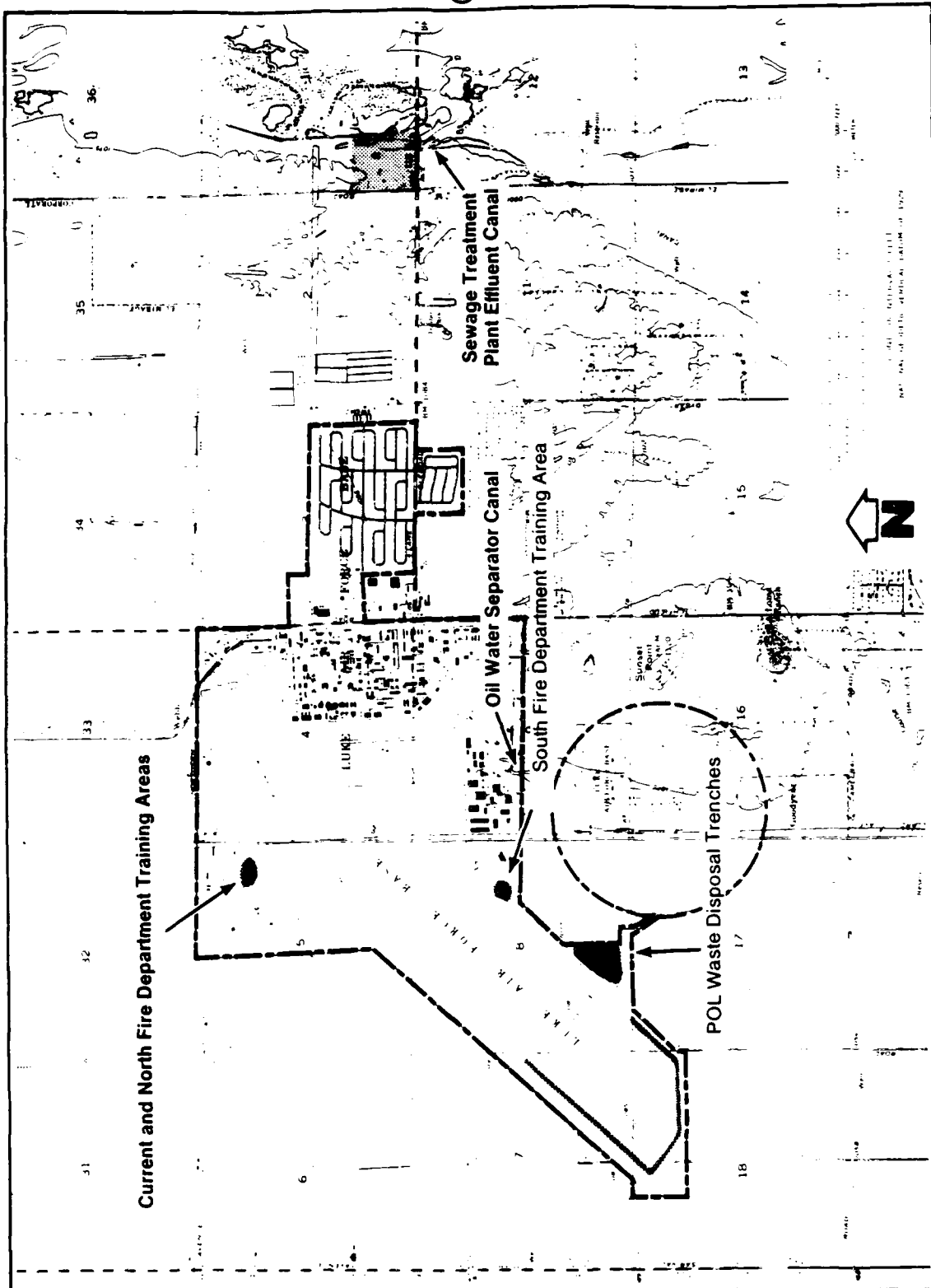


FIGURE 1-1 LOCATIONS OF ALL STAGE 2 SITES,  
LUKE AFB, ARIZONA



### 1.3 Description and History of Individual Sites

#### 1.3.1 Base Production Wells

Locations of the Base production wells to be sampled are presented on Figure 1-2. These wells were installed between 1970 and 1985, and their depths range from 910 to 1004 feet below ground surface. Production wells 2, 3, 5, 6 and 8 are currently not in use.

#### 1.3.2 Sewage Treatment Plant Effluent Canal

Wastewater from Luke AFB is treated at the Sewage Treatment Plant built in the early 1940's. This plant is located on Glendale Avenue, approximately two miles east of the main Base. The plant processes include a comminutor, two sedimentation units, two trickling filters, a secondary clarifier, and a chlorine content chamber. Two anaerobic digestors are used to digest the sludge, which is then dewatered on sludge drying beds. The design capacity of the plant is 0.94 mgd with a peak flow of 3.15 mgd. Presently, the plant is operating at 0.6 to 0.7 mgd. The majority of this flow consists of domestic sewage. Industrial wastewater is estimated to comprise less than 5 percent of the total average daily flow.

The effluent from the plant is discharged into a Canal, which leads to the Agua Fria River. The treated effluent is routinely monitored for conventional parameters including BOD, COD and oil and grease, in accordance with USEPA regulations.

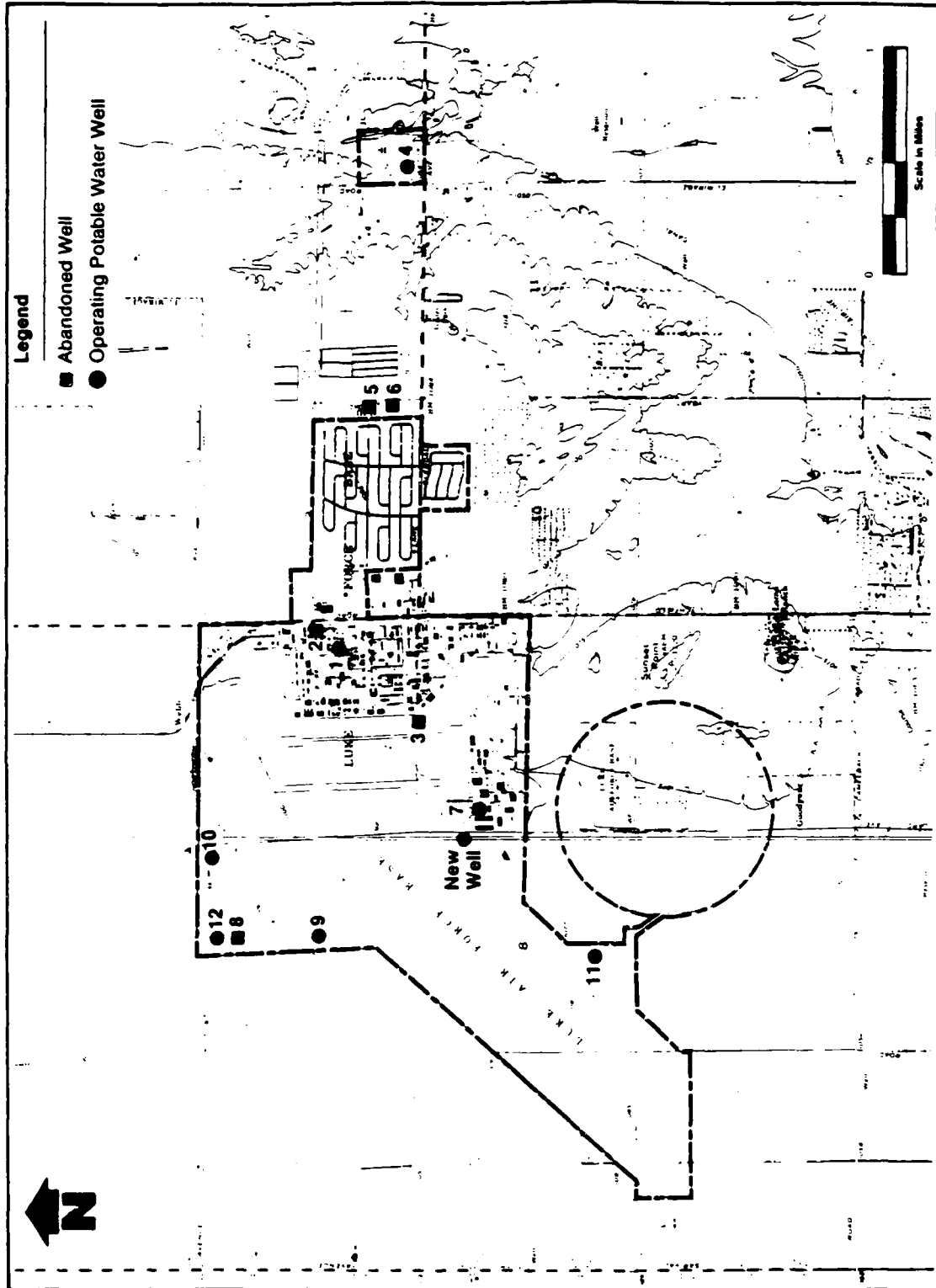


FIGURE 1-2 LOCATIONS OF BASE PRODUCTION WELLS

### 1.3.3 Oil-Water Separator Canal

The oil-water separator canal is located on the south side of the Base as shown on Figure 1-1. This canal collects run-off from the runways and aircraft washing and maintenance areas and flows southwest through an area off-base where subsidence fissures are reported to exist.

### 1.3.4 POL Trenches and Lagoon (Site 5)

Site No. 5 is located south of Building 1013 (Pump House, Well #11) and southeast of the power check pool. The site was used for the disposal of Base-generated petroleum oil and lubricants (POL) wastes from 1970 through 1972. The liquid waste was distributed by tank truck over the site in shallow trenches from 1 to 1.5 feet deep. The waste was left to weather for from four to six weeks, after which the trenches were backfilled and the residual products covered. An estimated volume of 100,000 gallons per year, mostly waste JP-4 fuel, may have been disposed of at this site.

### 1.3.5 South Fire Training Area

This site was the original fire department training area and is located in the south central portion of the Base between Facility 999 and "N" Street. The site was used from 1941 until 1946, and again from 1951 until approximately 1963. Training exercise fires were fueled by a mixture of flammable liquids, including waste POL products, generated by the Base. The waste was poured onto an old aircraft or simulated aircraft in a cleaned area and then ignited. Surface drainage from the site is southerly through erosional gullies into manmade drainageways.

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## 1.3.6 Current and North Fire Training Areas

These sites are located in the northern portion of the Base. The Current Fire Department Training Area is located approximately 1,000 feet east of the North Fire Training Area. The North Fire Training Area was used from approximately 1963 until 1973, while operations at the Current Fire Training Area commenced following closure of the North Area. Training exercises were conducted in a similar fashion to that discussed in Section 1.3.5. There is surficial evidence of past fuel spillage in the general area. Both Current and North Fire Training Areas are generally flat with little or no topographic relief.





## 2.0 SITE INVESTIGATION SUMMARY

### 2.1 Overall Facility Investigation

In order to obtain comprehensive background information about the Base and the individual sites, two types of searches will be implemented. First, all available current and historical aerial photos of the base will be reviewed to determine the aerial extent of the individual sites. Second, a literature search will be conducted to complement the information provided in the Facility 993 report and the Phase II Stage 1 report on local hydrogeologic conditions. Data generated from the literature search will provide site specific information and will aid in selecting locations for monitor wells, soil borings and other sampling points. The data will also aid in determining the appropriate interval to be screened in the monitor wells. Prior to the start of the Stage 2 drilling program, an inventory of all active and abandoned wells on Base will be complete and their locations will be documented.

Soil gas analysis testing will be performed at three of the sites. The results of this testing will be used as a guide in selecting locations for the soil borings and monitor wells. A total of 27 soil borings will be drilled and the total depth of each soil boring will be no more than 100 feet. Soil samples will be collected for chemical analyses at depths suspected of containing waste material and at any major soil interface. At one boring location to be chosen during field operations, samples will be taken to determine the physical and chemical characteristics of the soil. The samples will be sent to a laboratory for analysis of plasticity index, percent organic matter, particle size

determination by sieve and hydrometer, cation exchange capacity, percent moisture, density saturation, calcium magnesium ratio and pH. Confirmatory samples will be collected at other borings which will also be chosen in the field.

A total of 11 monitor wells will be drilled. Each well will be screened at the top of the water table with 60 feet of stainless steel screen. Monitor well depths will range between 270 and 470 feet and based on available data are expected to average approximately 435 feet in depth. A 4-hour aquifer test will be conducted on each well after completion. After the wells have stabilized, groundwater samples will be collected to monitor groundwater quality. Three rounds of groundwater sampling will be conducted at two to three week intervals.

## 2.2 Investigations of Individual Sites

Specific actions which will be conducted at each site are summarized in Table 2-1. A brief description of the rationale for the activities to take place at each site follows. Soil analytes for the individual sites are summarized in Table 2-2 and ground water and surface water analytes are summarized in Table 2-3.

### 2.2.1 Base Production Wells

All nine Base Production Wells will be sampled , as was recommended based on the results obtained in the Phase II Stage 1 investigation in 1984. Water samples from several Base wells were found to contain low levels of volatile organic compounds, and Well No. 4 samples contained low

TABLE 2-1  
 SUMMARY OF SPECIFIC ACTIONS  
 PHASE II, STAGE 2 SITES  
 LUKE AFB, ARIZONA

SITES	ACTIONS									
	Soil Borings	Monitor Wells	Soil Gas	Soil Samples	Groundwater Samples	Effluent Samples	Surface Water Samples	Geophysical Survey		
1. Base Production Wells	--	--	--	--	27	--	--	--		
2. Sewage Treatment Plant Effluent Canal	6	1	30 probes	46*	3	9	--	--		
3. Oil-Water Separator Canal	6	2	20 probes	68**	6	--	2	--		
4. POL Trenches & Lagoon	9	3	30 probes	90	9	--	--	--		GPR and EM
5. South Fire Training Area	2	2	--	40	6	--	--	--		
6. Current & North Fire Training Area	4	3	--	80	9	--	--	--		

\* Includes 10 sediment samples from canal  
 \*\* Includes 20 sediment samples from canal  
 -- Not Analyzed at this site

TABLE 2-2  
 SOIL ANALYTES  
 LUKE AFB, AZ  
 PHASE II, STAGE 2

SITES	ANALYTES				
	VOA*	Priority Pollutant Metals	Petroleum Hydrocarbons	Oil & Grease	MEK
1. Sewage Treatment Plant Effluent Canal	46	46	--	--	--
2. Oil-Water Separator Canal	68	--	68	--	--
3. POL Trenches & Logoon	90	90	--	--	--
4. South Fire Training Area	40	40	--	40	40
5. Current & North Fire Training Area	80	80	--	80	80

\*VOA = SW 8016/8020

-- = Not Analyzed at this site

TABLE 2-3  
 GROUNDWATER AND SURFACE WATER ANALYTES  
 LUKE AFB, AZ  
 PHASE II, STAGE 2  
 (Includes three sampling rounds)

SITES	ANALYTES											
	VOA *PAHs Xylene	BNE**	Oil & Grease	Total Organic Carbon (TOC)	Priority Pollutant Metals	Priority Pollutant Pesticides	MEK	Gross Alpha, Beta, Gamma, Radium-226	DUOP	NALGATE	NATIALE	TNN
1. Base Production Wells	27	27	27	27	27	27	27	27	27	--	--	--
2. Sewage Treatment Plant Effluent Canal	12	12	12	12	12	12	12	--	--	12	12	12
3. Oil-Water Separator Canal	8	8	8	8	8	8	8	--	--	--	--	--
4. FOL Trenches & Lagoons	9	9	9	9	9	9	9	--	--	--	--	--
5. South Fire Training Area	6	6	6	6	6	6	6	--	--	--	--	--
6. Current and North Fire Training Area	9	9	9	9	9	9	9	--	--	--	--	--

\* VOA = EPA 601/e02  
 \*\* BNE = base/neutrals and acid extractable compounds (EPA 625)  
 -- = Not analyzed at this site

levels of gross alpha, beta and gamma radioactivity. These results require confirmation and further quantification. Base personnel have advised that there are seven existing wells which may be sampled, and the new well located near the Air Control Tower may be on-line at the time sampling is scheduled.

## 2.2.2 Sewage Treatment Plant Effluent Canal

Low levels of VOA compounds and phenols were detected in the treatment plant effluent in the Phase II Stage 1 investigation. Soil gas analysis (30 probes maximum) will be performed in this area to detect the presence or absence of volatile organic compounds in the gaseous form in the near surface vadose zone. Based on the results of the soil gas testing, six soil borings will be drilled and a maximum of 36 samples will be collected in areas adjacent to the plant and canal to determine if there has been any vertical migration of contaminants from the effluent stream into the subsoil. Ten sediment samples will be collected from the canal to characterize the sediments downstream from the effluent discharge. One monitor well will be installed in this area to determine if the low level effluent contamination has had any effect on the ground water quality. Nine effluent samples will be collected from the sewage plant to deny or confirm the presence of low levels of VOA compounds in the effluent.

## 2.2.3 Oil-Water Separator Canal

The oil-water separator located on the south side of the Base in the 900 Area collects runoff from the runways and aircraft washing and maintenance areas. On several occasions Base personnel have noted an oil film on the surface of the discharge water in the canal.

A maximum of 20 shallow probes will be used to conduct soil gas analysis at this site to detect the presence or absence of volatile organic compounds in the gaseous form in the shallow vadose zone. Six soil borings will be drilled and sampled and a maximum of 48 soil samples will be collected. The soil sampling will enable WESTON to determine the extent of vertical migration of any contaminants. Twenty sediment samples will be collected from the canal to characterize the sediments downstream from the oil-water separator. Two surface water samples will be collected from the canal to monitor the water quality of the oil-water separator effluent. Two monitor wells will be installed in this area and will be sampled to determine whether the groundwater quality has been adversely impacted.

#### 2.2.4 POL Trenches and Lagoon

Base-generated waste POL products were disposed of in trenches and a shallow lagoon from 1970 to 1972, located in the southwest portion of the Base. There is currently no surficial evidence of the former trenches or lagoon. In the Stage 1 investigation, very low levels of oil and grease and VOA compounds were detected in shallow subsurface soil samples. A geophysical survey, including ground penetrating radar (GPR) and electromagnetic terrain conductivity (EM), will be conducted at this site to delineate the area of the former trenches and lagoon. Soil gas analysis will also be performed at this site using a maximum of 30 shallow probes, to detect the gaseous phase of any volatile organic compounds.

The geophysical and soil gas testing information will be used to locate the nine soil borings and three monitor wells to be placed at the site. Ninety soil samples will be collected from the soil borings to determine the extent of

vertical migration of contaminants, to a maximum depth of 100 feet per boring. The monitor wells will be installed and sampled to determine if the ground water quality has been adversely impacted.

## 2.2.5 South Fire Training Area

This area was used for fire training exercises for a time period of approximately 17 years between 1946 and 1963. In the 1984 Stage 1 investigation, soil contamination was detected in shallow subsurface soil samples. Oil and grease concentrations were high, as well as concentrations of several VOA compounds. Two soil borings will be drilled and a maximum of 40 samples will be collected at this site in order to determine the extent of vertical migration of contaminants. Two monitor wells will be installed to determine if the ground water quality has been adversely impacted by activities at the fire training area.

## 2.2.6 Current and North Fire Training Area

Flammable fuel products have been poured directly onto these areas and ignited for fire training exercises for over 20 years. Some soil contamination from oil and grease and VOA compounds was detected in the 1984 Stage 1 investigation.

Four soil borings will be drilled and sampled to a maximum depth of 100 feet (maximum of 80 samples), to determine the extent of migration of contaminants beyond the 20 feet drilled in 1984. Three monitor wells will also be installed to determine if the underlying ground water quality has been affected by fuel products used in the fire training exercises.



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A records search will be conducted to determine off-base land use adjacent to the Current and North Fire Training Areas. The purpose of the records search is to determine if any additional potential sources of contamination exist in this area.



### 3.0 FIELD SET-UP

#### 3.1 Detailed Work Plan

The Technical Operations Plan (TOP) will be approved by the USAFOEHL before commencement of field work. This work plan details procedures for collecting representative samples, analytical requirements, quality assurance/quality control (QA/QC) protocol and personnel safety for the proposed work. Section 11.0 addresses decontamination procedures; Section 12.0 addresses sample handling and packing procedures; and Section 16.0 addresses field team organization and the WESTON personnel who will be responsible for the implementation of this plan. A copy of the TOP will be available at the site for inspection and the field team leader will ensure that the field work is performed in strict compliance with the plan. Any significant deviation from the TOP will be reported immediately to the Base monitor.

#### 3.2 Health and Safety Plan

A detailed site Health and Safety Plan will be prepared prior to commencement of field work. The plan will designate appropriate levels of safety protection at each site based on USEPA guidelines. WESTON will coordinate this plan with the Arizona Department of Health Services (ADHS) and will provide an information copy to the USAFOEHL.

#### 3.3 Subcontract Information

Monitor well installation will be performed by Beylik Drilling, Inc. of LaHabra California, and soil borings will be performed by Western Technologies, Inc., of Phoenix,

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Arizona. These activities will be accomplished under subcontract to WESTON, and under the direction of WESTON's field team leader. All monitor wells will be installed in accordance with ADHS specifications. The soil gas surveys will be conducted by Tracer Research Corporation (TRC) of Tucson, Arizona, under subcontract to WESTON. The WESTON Field Team Leader will guide and coordinate TRC's activities. Geophysical logging of monitor well borings will be conducted by an as-yet unidentified subcontractor, who will likely be a second level subcontractor arranged for by Beylik Drilling, Inc.



#### 4.0 CALIBRATION OF FIELD EQUIPMENT

The instruments that will be used during the field investigation are listed below:

- o HNu Photoionization Analyzer
- o Organic Vapor Analyzer (OVA)
- o Combustible Gas Indicator or Explosimeter
- o Specific Conductivity Meter
- o pH Meter
- o Ground Penetrating Radar
- o Electromagnetic Terrain Conductivity

The instruments will be calibrated after each field use or prior to each field use if the instruments have not been calibrated during the previous 14 calendar days.

#### 4.1 HNu Photoionization Analyzer

The HNu photoionization analyzer is designed to measure the concentration of trace gases in many industrial or plant atmospheres. The analyzer employs the principle of photoionization for detection. A sensor, consisting of a sealed ultraviolet light source, emits photons which are energetic enough to ionize many trace species, particularly organics. In general, the instrument is calibrated by following the listed procedures:

1. Insert one end of T tube into probe. Insert second end of probe into calibration gas in the 20-200 ppm range. The third end of probe should have the rotometer (bubblemeter) attached.

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2. Set the function switch in the 0-200 ppm range.
3. Crack the valve on the pressured calibration gas container until a slight flow is indicated on the rotometer. The instrument will draw in the volume required for detection with the rotometer indicating excess flow.
4. Adjust the span potentiometer so that the instrument is reading the exact value of the calibration gas. (Calibration gas value is labeled on the cylinder).
5. Turn instrument switch to the standby position and check the electronic zero. Reset zero potentiometer as necessary.
6. Record on form F6264 all original and readjusted settings as specified in the form.
7. Next, set the function switch to the 0-20 ppm. Remove the mid range (20-200 ppm) calibration gas cylinder and attached the low range (0-20 ppm) calibration gas cylinder as described above.
8. Do not adjust the span potentiometer. The observed reading should be  $\pm 3$  ppm of the concentration specified for the low range calibration gas. If this is not the case, recalibrate the mid range scale repeating procedures 1 to 7 above. If the low range reading consistently falls outside the recommended tolerance range, the probe light source window likely needs cleaning. When the

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observed reading is within the required tolerances, the instrument is fully calibrated.

## 4.2 Organic Vapor Analyzer

The portable organic vapor analyzer (OVA) is designed to detect and measure gases and organic vapors in the atmosphere. The instrument utilizes the principle of hydrogen flame ionization for detection. The Organic Vapor Analyzer measures gases and vapors by producing a response to an unknown sample, which can be related to a gas of known composition to which the instrument has been previously calibrated. The instrument is normally calibrated to methane gas. To calibrate the instrument a step-by-step procedure is followed as listed below:

Calibration should be performed on a daily basis in a well ventilated area.

1. Set CALIBRATE switch to 10.
2. Adjust meter reading to zero by rotating the CALIBRATE ADJUST (zero) knob.
3. Attach one end of T assembly to calibration gas cylinder and the other to the probe.
4. Crack open calibration gas cylinder until a slight flow of gas can be detected exiting the open end of the T assembly. (Caution: if the calibration gas is toxic or highly flammable, calibration should occur underneath a hood.)

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5. Adjust GAS SELECT knob on instrument until the meter reads the same level as that of the calibration gas.
6. Turn off calibration cylinder and remove T assembly.
7. The instrument is now calibrated for the specialty gas/vapor. All responses of the instrument should be recorded relative to the specialty gas.
8. Calibration in the X10 range by adjusting the GAS Select knob automatically calibrates the instrument for the X1 and X100 ranges. No further adjustments are necessary.
9. Shut instrument down by closing the H<sub>2</sub> SUPPLY VALVE and H<sub>2</sub> TANK VALVE, and putting the INSTR and PUMP switches in the OFF position.
10. Record on instrument calibration label, the calibration date, span gas and concentration, span setting, and initials of person performing calibration.

#### 4.3 Explosimeter/Combustible Gas Indicator (CGI)

The Explosimeter or Combustible Gas Indicator (CGI) is an air monitoring device designed to indicate a flammable/explosive atmosphere and the level of oxygen present. The CGI registers combustible gas or vapors in terms of their Lower Flammability Limit (L.F.L.), which is the lowest concentration a combustible gas may ignite or explode in



normal atmospheric conditions. Since the instrument measures both the level of oxygen in the atmosphere and the level a combustible gas reaches before igniting, the calibration of the instrument enfolds a two-step process.

The oxygen portion of the instrument is calibrated by the operator placing the meter in normal atmospheric air and rotating the CAL. OXYGEN control knob until the oxygen meter reads exactly 20.9% oxygen. This calibration should be done once daily per use.

The Combustible gas detector is calibrated to methane at the laboratory to indicate directly percent L.F.L. of methane in air.

It is recommended that the gas detector be calibrated at least once every month, and whenever the detector filament is replaced. The calibration kit included with the CGI contains a calibration gas cylinder, a valve attachment to release the calibration gas, flexible tubing (delivery tube), and a cylinder to encapsulate the sensor probe.

#### Recalibration Instructions

1. Disassemble case by removing the four retaining screws.
2. Allow the instrument to warm up for 15 minutes.
3. Assemble the calibration gas tank and delivery tube/cylinder.



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4. Carefully open the valve on the gas tank to bathe the sensor with just enough gas to cause the needle on the L.F.L. meter to move.
5. Adjust the L.F.L. CAL. control screw (refer to Figure 2) on circuit board until the percent L.F.L. meter indicates exactly the correct L.F.L. as indicated on the calibration gas cylinder.

## c) Calibration in an Atmosphere of Combustible Gases

Calibration in an atmosphere of combustible gases requires a source of methane test gas and a source of compressed air:

1. Using compressed air, bathe the gas sensor in a flow of air and adjust the ZERO L.F.L. control knob.
2. Calibrate the oxygen meter by rotating the CAL OXYGEN control knob until the oxygen meter indicates 20.9%.
3. Using the methane test gas, bathe the sensor in a flow of test gas and calibrate, if necessary, by adjusting the L.F.L. CAL control screw on circuit board.

## 4.4 Specific Conductivity Meter

The Yellow Springs Instruments Model 333 S-C-T Meter is a portable battery operated, transistorized instrument used to

measure salinity, conductivity, and temperature in surface, groundwater, and waste systems.

The meter is calibrated prior to each use by turning the MODE control to REDLINE and adjusting the REDLINE control so the meter lines up with the redline on the meter face.

#### 4.5 pH Meter

The Fisher Scientific Accumet Model 156 pH Meter is a portable pH monitoring instrument for determining pH in surface and groundwaters, waste systems and other water quality applications.

The instrument requires field calibration prior to each use. Distilled water, buffer solution (pH 7) and pH 4 solution are required for field calibration. All solutions must be at the same temperature since this reduces time to stabilize and improves accuracy. The instrument is calibrated by:

1. Rinse the electrode in distilled water.
2. Place the electrode in the pH 7 buffer solution and allow the reading to stabilize.
3. Adjust the pH 7 control using the knob on the front panel of the instrument until the meter reads pH 7.
4. Rinse the electrode in distilled water.



5. Place the electrode in pH 4 solution and allow to stabilize.
6. Adjust the control knob until the meter reads the correct value of the pH 4 solution.
7. Rinse probe in distilled water.
8. Repeat steps 2 through 7.
9. Record results in logbook.

#### 4.6 Ground Penetrating Radar

Ground Penetrating Radar (GPR) is a method of profiling subsurface features by means of reflected radar impulses. It utilizes a downward-directed thin line pulsed radar beam to transmit an electromagnetic signal into the earth. Subsurface interfaces, including trenches, soil discontinuities, buried materials, etc., reflect the signal back to a receiver and printer where return pulses are analyzed and recorded. The result is an accurate, continuous, linear plot of subsurface features. Prior to conducting the survey, the instrument will be depth calibrated to a theoretical dielectric value of the site specific soils or to a reflector of a known depth, such as buried utility conduit or storm drain.

#### 4.7 Electromagnetic Conductivity Meter (EM)

The Geonics EM-34 will be used to conduct the electromagnetic (EM) survey. The EM instrumentation involves surface application of electromagnetism to measure

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matrix conductivity. An alternating current set up in the transmitter coil produces a time-varying magnetic field. This magnetic field induces very small currents in the earth, generating a secondary magnetic field which is sensed, along with the primary field, by the receiver coil. Under certain constraints, the ratio of the secondary to the primary magnetic field is proportional to the terrain conductivity.

The instrument is factory calibrated but fine adjustments may be made in the field according to manufacturer's guidelines. A base station will be established at the site and measurements will be taken at this location at least once every four hours as a quality control procedure.



## 5.0 PREVENTATIVE MAINTENANCE OF FIELD EQUIPMENT

As discussed in Section 4.0, the field equipment will have been properly calibrated, charged, and in good general working condition prior to the beginning of each working day.

All subcontractor equipment (i.e. drill rig, water truck, etc.) will arrive each day in proper working condition. All lubrication, hydraulic, and motor oils will be checked prior to the start of each day making certain all fluid reservoirs are full.

## 6.0 FIELD ANALYTICAL PROCEDURES AND DATA REPORTING

### 6.1 Chemical Data

The on-site field team will analyze groundwater samples from each well for temperature, specific conductance, and pH. Samples for these analysis will be collected from the pump discharge immediately after completion of well purging. The pH will be measured with a Fisher Scientific Accumet Model 156 pH meter. Temperature and specific conductance will be measured with a YSI Model 333 conductivity meter. These field measurements will be reported on a field sampling sheet, which will be included in the report. An example of the form to be used is included in Figure 13-1. Each sample will be taken directly from the pump line and collected in a clean plastic container for measurement.

### 6.2 Hydraulic Data

Prior to well purging, static water level measurements will be taken in all monitor wells and referenced to the top of the surveyed casing (Section 6.4). Water level measurements will be made with an electric probe. During the pump test to be conducted at each well, the probe will be placed in the well port at the start of the test and water levels will be recorded for the duration of the test. Information concerning the pump tests is presented in Section 9.0. These data will be used to develop a groundwater contour map and to calculate the groundwater seepage velocities at the site.



### 6.3 Soil Boring Data

The WESTON field geologist/soil scientist will record all pertinent data gathered from the collected soil samples. Logs of the borings will be prepared using the Unified Soil Classification System. Information to be recorded will include blow counts, grain size distribution, color, texture and any visible soil staining or noticeable odor. A sample boring log form to be used is included in Figure 6-1.

### 6.4 Surveying Data

The tops of the well casings of all monitor wells will be surveyed for elevation to the nearest 0.01 foot by an Arizona State licensed surveyor. The wells will also be horizontally located to an accuracy of 1 foot and recorded on site maps. All casing survey measurements will be tied to the State Planar Coordinate System.





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## 7.0 SAMPLE NUMBERING SYSTEM

A numbering system has been developed to identify each sample taken during the water and soil sampling programs. This numbering system will provide a tracking procedure to allow retrieval of information concerning a particular sample. A listing of the sample identification numbers will be maintained by the WESTON field team leader.

### 7.1 Site Identification and Sequence Number

Each sample number will consist of three components to conform with the USAF Information Management System (IMS) which is currently being developed. The three components will consist of site, location and sample identifiers, and are described below.

Site Identifier - a two-digit designation will be used to identify the particular site where the sample is being collected (such as the South Fire Training Area). The site number will be cross-referenced to the actual site name in the sampler's field logbook and in the Technical Operations Plan (T.O.P.).

Location Identifier - a three digit designation will be used to identify the sample location within each site, such as the number of a monitor well or soil boring.

Sample Identifier - a four character alpha-numeric designation will be used to identify the samples according to sample type. The first character will be a letter to identify the sample type as follows:

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S	-	Shallow Soils (test pits, hand trowels)
M	-	Monitor Wells
B	-	Soil Borings
W	-	Surface Water
D	-	Sediment Samples
E	-	Effluent
P	-	Production Wells
G	-	Soil Gas

The remaining three characters will be digits and will be used to provide additional information depending on the type of sample. For a groundwater, surface water, production well or effluent sample, the three digits will indicate from which sampling round the sample came, i.e. 001, 002, etc. For a soil or sediment sample, the three digits will indicate the depth sequence from which the soil sample was obtained, i.e. 001, 002, 010, (S-1, S-2, S-10, etc). The depth interval for that sample number will be cross-referenced in the field logs.

The sample number will not be related to date of collection, however, the date will be documented in the samplers field logbook and the chain-of-custody form. All sample numbers will also be documented by the WESTON field team leader.

## 7.2 Example of Sample Numbers

While provision will be made where circumstances require a slight modification to the number sequence for a specific sample, two typical sample numbers follow:

e.g. 02-115-M002

Sewage Treatment Plant (cross referenced in T.O.P.) groundwater sample collected from monitor well 115, second sampling round.

e.g. 03-100-B019

Oil-Water Separator Canal (cross referenced in T.O.P.) soil sample S-19 taken from boring 100 at a depth of 95 feet (cross-referenced in the boring logs).

### 7.3 Blanks and Duplicates Sample Numbering

The last four characters of the numbering system established in Section 7.1, will be used to denote that a sample is a field duplicate or field blank. The site and location identifier will not change.

#### 7.3.1 Field Duplicate

The first character of the sample identifier will be a letter to identify the sample type, as discussed in Section 7.1. For duplicate samples the second character will always be the number 1, which will indicate that the sample is a duplicate of the sample denoted in the location identifier.

e.g. 02-115-M102

Field duplicate of the groundwater sample collected from monitor well 115, Sewage Treatment Plant, sampling round 2.

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e.g. 04-100-B103

Soil sample taken from boring 100 at site 4 (POL Trenches and Lagoon), duplicate of sample S-3 (02-100-B003).

## 7.3.2 Field Blanks

The first character of the sample identifier will denote the sample type. The next three characters will be digits, the first of which will always be a 2 to indicate a field blank. The next two digits will indicate from which sampling round the sample was collected. The site and location identifiers for the field blank will be the numbers of the location, and corresponding site which was sampled immediately prior to collecting the field blank.

e.g. 03-121-M202

Field blank collected during round 2, immediately after sampling monitor well 121 at site 3 (Oil-Water Separator Canal).

## 7.4 Split Samples

Ten percent of all samples will be collected in duplicate for analysis by USAFOEHL. A Base representative will be responsible for packing the samples to be sent to the OEHL laboratory. WESTON personnel will be responsible for completing the AF Form 2752 which will accompany the samples.

7.5 Assignment of Site Numbers

The following sequence of two-digit numbers will be used as site identifiers to denote the individual sites to be investigated during the Stage 2 study:

- 01 - Base Production Wells
- 02 - Sewage Treatment Plant Effluent Canal
- 03 - Oil-Water Separator Canal
- 04 - POL Trenches and Lagoon
- 05 - South Fire Training Area
- 06 - Current and North Fire Training Area

## 8.0 DRILLING OPERATIONS

### 8.1 Soil Gas Analysis

The soil gas contaminant investigation will be conducted by Tracer Research Corporation (TRC) of Tucson, Arizona, under subcontract to WESTON. The method has been developed by TRC for investigating underground contamination from volatile chemicals, such as industrial solvents and petroleum products, by measuring their vapors in the shallow soil gas. The presence of contaminants in the soil gas means that there is contamination from the observed compound either in the soil near the probe or in the groundwater below the probe.

#### 8.1.1 Soil Gas Sampling Procedure

The investigation will begin by setting up transects across the site. A hollow probe will be driven into the ground at points along the transects and a small amount (10 to 20 liters) of air will be evacuated. The sample is collected in a syringe during the evacuation step by inserting a needle through the evacuation line and drawing a sample from the gas stream. The sample is analyzed immediately in the TRC mobile analytical van. Most soil gas plume investigations are performed with probes driven to a depth of five feet. The complete operation of sampling to a depth of five feet, soil gas analysis, and probe removal takes 15 to 20 minutes. Typically, 15-20 probes can be measured in a 10-hour day.

## 8.1.2 Documentation

The TRC analytical field van is operated by a two-person crew consisting of an analytical chemist and a hydrogeologist. The chemist is responsible for checking and interpreting each day's chromatograms. The hydrogeologist is responsible for plotting probe locations on the map, and entering the date, time, and location number of sampling points into the log book. A numbering system for the soil gas probes will be established prior to sampling. The probe location number for the soil gas will be assigned a number based on the system discussed in Section 7.0. Calculations of contaminant concentrations for each probe location will be compiled on TRC data sheets by the chemist and checked by the hydrogeologist.

## 8.1.3 Quality Assurance/Quality Control Procedures

TRC has developed a QA/QC program that has been accepted by EPA and is followed on all jobs. It includes:

- o Steel probes are used only once during the day, then are steam-cleaned to prevent cross-contamination.
- o Probe adaptors are checked continually for contamination by running system blanks. They are also cleaned at the end of each working day by baking in the GC oven.
- o Glass syringes are purged with carrier gas (nitrogen) and baked out between probe samplings.



In addition, a WESTON hydrogeologist or soil scientist will be on-site during this effort. The responsibilities of the WESTON representative include:

- o Quality Assurance and subcontract supervision of TRC
  
- o Immediate evaluation of the data as a basis for field decisions to meet the goal of this task. The goal is to make a preliminary determination of the extent of contamination so that the locations for soil borings and wells can be directed to define the potential plume. Field decisions may result in planned probe locations being altered based on the data as it is collected in order to define the boundary of contamination.

## 8.2 Monitor Well Drilling

Monitor well drilling and installation will be performed by Beylik Drilling, Inc. of LaHabra, California under subcontract to WESTON, and under the supervision of an on-site WESTON Project Scientist. All monitor wells will be installed in accordance with ADHS recommended specifications and procedures. Prior to the start of drilling, the subcontractor will obtain all necessary permits for installation of the wells. A total of eleven (11) monitoring wells will be installed, keyed to the water table, with 60 feet of stainless steel screen and double-wall black iron riser pipe and will be completed above-ground with approximately two feet of stick-up. Wells are expected to range between 270 and 470 feet in depth. The estimated screened intervals of the 11 monitor wells are presented in Table 8-1. The screened intervals were determined based on water level





TABLE 8-1  
ESTIMATED SCREEN INTERVALS OF MONITOR WELLS

<u>Well #</u>	<u>Site #</u>	<u>Location</u>	<u>Estimated Screen Interval (Feet)</u>
101	02	Sewage Treatment Plant	210-270
102	03	Oil Water Sep/Canal	350-410
103	03	Oil Water Sep/Canal	350-410
104	04	POL Trenches & Lagoons	350-410
105	04	POL Trenches & Lagoons	350-410
106	04	POL Trenches & Lagoons	350-410
107	05	South Fire Training Area	350-410
108	05	South Fire Training Area	350-410
109	06	Current & North Fire Training Areas	400-460
110	06	Current & North Fire Training Areas	400-460
111	06	Current & North Fire Training Areas	400-460

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information obtained from the Arizona Department of Water Resources in November 1985. Additional water level information that has been recorded since then will be reviewed to further substantiate the estimated screened intervals.

The monitor well drilling will start using air rotary techniques so that perched water tables can be identified if present. However, if this is not feasible due to excessive caving, drilling will be switched to mud rotary technique.

## 8.2.1 Monitoring Well Construction and Completion

Each monitoring well will be drilled with a 14-3/4 inch diameter bit to approximately 20 feet below ground surface. A 10-inch diameter steel surface casing will be installed, and the annular space between the formation and the casing will be sealed with quick-set cement and allowed to set for approximately 6 hours. A 9-7/8 inch I.D. hole will be drilled inside the surface casing to approximately 10-15 feet above the water table. At this stage a geophysical log will be conducted down hole as discussed in Section 8.2.2. A 6-5/8 inch I.D. intermediate casing will then be installed with centralizers and cemented in place with a mixture of quick-set cement and bentonite at a ratio of 20:1. Five to six gallons of water will be used to mix a 94 pound bag of cement. A quick setting cement mix will be used capable of reaching a strength of 500 psi in 6 hours. Prior to grouting, water will be pumped under pressure through the intermediate casing to clean out the borehole. The volume of the annular space will be calculated along with the volume of the 10-foot cement plug that would be placed at the bottom of the casing. Without interrupting the circulation of clear water, pumping of fluid will be switched immediately to grout slurry. The slurry will be pumped until it is exhausted. This will immediately be

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followed by pumping a chase fluid (water) equal to the volume of the casing and the hoses (excluding the 10-foot cement plug) until it is exhausted or until the undiluted grout is at the surface of the annulus, whichever comes first. The intermediate casing is then forced to sit on the bottom of the hole; trapping a 10-foot cement plug within the bottom of the casing.

During the grouting, the intermediate casing will be rotated until the cementing procedure is completed to avoid possible channeling and to ensure removal of any mud filter cake that is left during the drilling processes.

The final portion of the well will be advanced with a 6-inch ID bit through the 10-foot cement plug at the bottom of the intermediate casing to approximately 60 feet below the water table. At the completion of the final borehole, the second geophysical log will be run as discussed in Section 8.2.2. An inner casing consisting of 60 feet of 4-inch ID wire wound stainless steel screen threaded to 4-inch ID black iron riser pipe with collars welded over the threads will be installed. No artificial gravel pack will be used. The production zone will be developed to provide its own natural gravel pack. The three stages of well construction are shown in Figure 8-1.

## 8.2.2 Geophysical Logging

The geophysical logs will be run by a subcontractor under the supervision of a WESTON scientist. The logs will include self-potential (SP), natural gamma, point-source resistivity, 6-foot separation resistivity, and caliper log. Downhole geophysical logging operations will be conducted

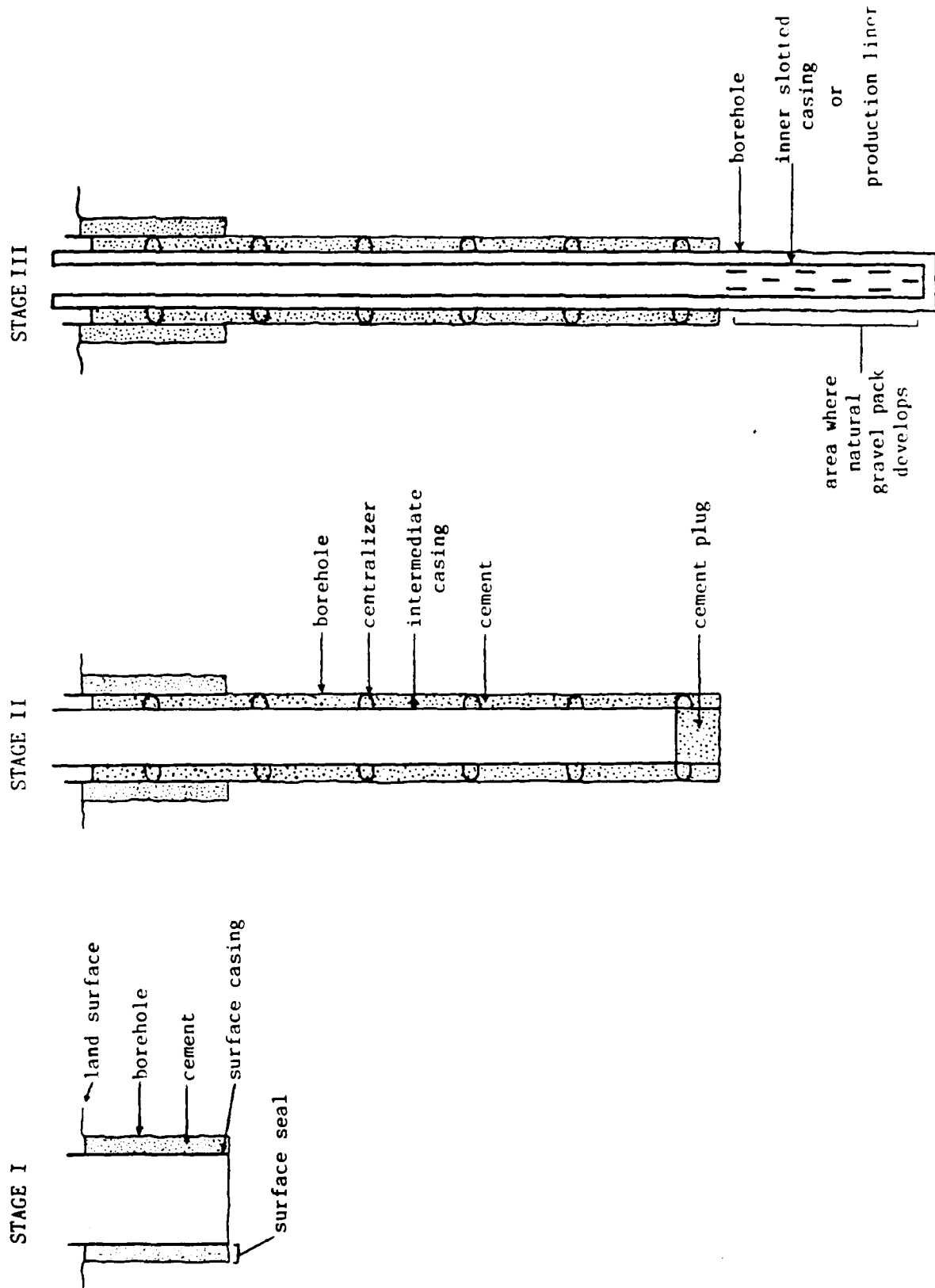


Figure 8-1. Monitor Well Design and Construction Stages - Luke APB, AZ

twice for each monitor well. As described in Section 8.2.1, the hole will be drilled to a target area of within approximately 10 feet above the regional water table. After the target area has been reached, drilling will stop and, if air rotary techniques have been used to this point, the hole will be "mudded up" and all drilling tools will be removed. If mud rotary drilling has been used, the hole will already be mud-filled and the drilling tools will then be removed. The five types of logs which were listed above are then conducted in the uncased borehole. The hole will then be drilled to its final depth, approximately 60 feet into the uppermost portion of the aquifer. The drilling tools will be removed again and the geophysical logging operations will be conducted in the lower, uncased portion of the borehole. The geophysical logs will aid in classifying the lithology and in identifying saturated sediments. The geophysical logs will be presented in the final report.

### 8.2.3 Well Development

The completed monitor wells will be developed with a combination of swabbing and bailing techniques. The swab will be moved up and down through the screened interval to ensure that all portions of the screen are clean and free of clogged sediment. After the well has been swabbed and bailed to the satisfaction of the on-site WESTON scientist, the submersible pump will be installed. The pump will initially be set at the bottom of the well, then later moved towards the top of the screen to ensure water is drawn through all portions of the screen. Development will continue until the discharge water is clear of suspended solids to the maximum extent practical. Development is expected to take approximately four hours.



### 8.3 Soil Sampling

Two types of soil sampling for chemical analysis will be conducted during the Phase II Stage 2 investigation: surface sediment sampling and subsurface soil sampling. The total number of soil samples to be taken and the specific soil analytes are shown in Tables 2-1, 2-2, and 2-3. Soil samples will be collected during monitor well drilling for physical description purposes only.

#### 8.3.1 Sediment Sampling

Sediment samples will be collected by WESTON personnel from two sites; the sewage treatment plant effluent canal, and the oil-water separator canal. Sample locations within each site will be chosen in order to characterize the canal sediments downstream from the potential contaminant source. At each location, one sample (0-12 inches) will be taken with a trowel or bucket auger. A sample from each location will be composited and placed in laboratory prepared sample bottles. Every attempt will be made to exclude debris, rocks, twigs, and vegetation from the sample. Sample locations will be logged in the field book. Equipment will be decontaminated between sampling locations according to procedures outlined in Section 11.5. Field equipment for this task includes the following:

- o Sampling equipment (stainless steel spatula and trowel, bucket auger)
- o Sample bottles
- o Decontamination equipment
- o Sample packaging equipment

## 8.3.2 Soil Borings

All soil borings will be drilled by Western Technologies, Inc. of Phoenix, Arizona, under subcontract to WESTON, and under the supervision of an on-site WESTON project scientist. Boring locations will be staked out at each site based on information obtained from the literature search, previous soil borings, and the soil gas analysis testing which will be conducted prior to the drilling.

A total of 27 soil borings will be drilled at the sites specified in Table 2-1, for the purpose of collecting soil samples for chemical analyses at depths suspected of containing waste material, and at any major soil interface. Each boring will be advanced with an auger rig using conventional 3-1/4 inch inner-diameter hollow stem augers. Samples will be collected using stainless steel split spoon samplers (ASTM Method D1586) at depths determined by the on-site project scientist. Samples will be logged by the on-site project scientist according to procedures outlined in Sections 6.3 and 7.0. HNu vapor readings will be taken in the borehole and in sample jar headspaces. Results will be recorded in the drilling logs. Sample depths may be based on vapor detection, soil discoloration, or other field indicators.

The sampler will be driven to the appropriate interval, recovered, opened, and the soil will be divided into sections. The soil samples will be transferred to the appropriate containers with a stainless steel sampling utensil, and the containers will be appropriately labelled. The samples to be taken for VOC analysis will be collected immediately after opening the split spoon to minimize the

soil contact with air and the escape of any volatiles that may be in the soil. All samples will be placed on ice in an insulated cooler immediately after collection, and will be maintained on ice until they are released for shipment. Sample packing requirements are outlined in Sections 12.3 - 12.5. All sampling equipment and augers will be decontaminated between sampling locations as outlined in Section 11.5. All boreholes will be grouted at completion to prevent the disturbed soils from acting as a conduit for contaminants.

Field Equipment for this task includes the following:

- o Hollow stem auger drilling rig
- o Two or more 18-inch long split-spoon samplers
- o HNu photoionization detector, OVA, Explosimeter
- o Sample bottles
- o Decontamination equipment
- o Sample packaging equipment
- o Field log book, chain-of-custody forms, sample log sheets

### 8.3.3 Quality Assurance/Quality Control - Soil Sampling

In order to validate field and analytical techniques, duplicate soil samples will be collected which will amount to fifteen percent of the total samples collected. The duplicate sample locations will be chosen at the direction of the WESTON field team leader. It may be desirable to collect duplicate samples from areas of higher suspected contamination, based on vapor detection, soil discoloration or odor. The duplicate sample locations will be documented in the logbook, and the sample will be numbered according to



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the numbering system described in Section 7.3. Due to the heterogeneous nature of soils, the duplicate samples will be taken as splits of a single sample rather than as separate samples. There will be no field "blanks" collected for soil samples.

## 9.0 PUMP TEST

After completion and development of each well, a short-duration pump test will be conducted. The test will be run using the submersible pump which has been dedicated to each well. The pump model is capable of 5-10 gpm. The aquifer testing will be conducted concurrently with the first round of groundwater sampling. The well must be purged of three to five volumes of water prior to sampling.

As the well is being purged, the aquifer test will be on-going. A static water level measurement will be taken prior to starting the pump. The time and water level will be recorded and pumping will begin. Drawdown measurements will be recorded every 0.5 minutes for the first 10 minutes, then every minute for the next 20 minutes, then every 10 minutes for the remainder of the aquifer test until the water level has stabilized. The water level will be defined as stabilized when three successive 10 minute readings fall within 0.01 feet of each other. Flow will be periodically checked by timing discharge into a 5 gallon pail. The pumping will be conducted for a minimum of one hour and a maximum of 4.0 hours, and the test will be terminated when the water level stabilizes.

When the water level has stabilized, the pump will be turned off and recovery measurements will be recorded every 0.5 minutes for the first 10 minutes, then every minute for the next 20 minutes. It is expected that the water level will recover to static levels within 30 minutes. If recovery measurements have not stabilized within 30 minutes, water level recovery measurements will continue to be recorded at 5 minute intervals for another thirty minutes. At the end

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of this time, the aquifer test will be complete. The groundwater samples will be collected after the calculated purging time has passed, and will have no effect on the aquifer test.

Drawdown and recovery data from these tests will provide data for estimating transmissivity of the producing aquifer zone adjacent to the wells.

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## 10.0 GROUNDWATER MONITORING AND SAMPLING

All groundwater sampling will be done after the wells have been properly developed. Permanent pumps will be dedicated to each monitor well. Because drilling and well construction disturb the natural groundwater system, some time should pass before sampling to allow the groundwater system to return to chemical equilibrium. Groundwater sampling will occur no earlier than 7 calendar days after well development has been completed.

### 10.1 Water Level Measurements

As discussed in Section 6.2, groundwater level measurements will be taken in all wells prior to sampling. Measurements will be taken from a surveyed reference point marked on the top of the PVC casing using an electric water level probe. This data will determine the amount of water to be evacuated from each well prior to sampling (see Section 10.4). The surface water levels will be measured with a ruler against a wooden staff gauge to the nearest 0.01 foot.

### 10.2 Groundwater Elevation Survey

As discussed in Section 6.4, all wells will be surveyed to the nearest 0.01 foot by an Arizona State licensed surveyor. The purpose of the survey will be to establish a common datum from which to measure groundwater elevations in each well, in order that the gradient and direction of flow of groundwater can be established.

## 10.3 Sampling for On-site Analysis

As discussed in Section 6.1, groundwater samples will be taken from each well for analysis of pH, temperature, and specific conductance. After initially calibrating the instruments with the appropriate buffer and standard solutions, measurements will be taken by dipping the selected probes into the grab samples. All pertinent data will be recorded in the field log and on the field sampling sheet. The instrument probes will be flushed with distilled water between sample measurements to maintain sample integrity.

## 10.4 Sampling for Off-site Analysis

### 10.4.1 Monitor Well Sampling

Procedures for sampling wells are as follows:

1. The depth from the top of the casing to the top of the water will be measured and recorded. All measuring devices used in the well will be thoroughly rinsed with distilled water prior to use.
2. The depth to the top of the water will be subtracted from the depth to the bottom of the casing to determine the height and volume of standing water in the casing.
3. The well pump will be started and a quantity of water will be removed from the well equal to five

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times the calculated volume of water in the well casing (4" I.D. casing contains approximately 0.65 gal/foot of standing water).

4. A sample will be obtained for chemical analyses immediately after pumping is complete directly from the discharge port. Care will be taken to avoid splashing or turbulence.
5. All sampling equipment will be decontaminated after sampling to prevent cross contamination between sampling wells. Sampling equipment will be protected from the ground surface by clean plastic sheeting.
6. All samples for chemical analyses will be placed in specially prepared bottles. The bottles will be filled to the top and capped securely. The sample bottles will be placed in an insulated cooler with ice immediately after sampling and delivered to WESTON's laboratory in Lionville, Pennsylvania. Sample handling and packing procedures are discussed in Section 12.

## 10.4.2 Production Well Sampling

Groundwater sampling of the Base Production Wells will be accomplished using their permanent pumps. Wells which are

on-line at the time of sampling will be purged by allowing water to flow through the sampling petcock for five minutes. Wells not on-line but serviceable at the time of sampling will be restarted by a Base escort and allowed to run for approximately 20 minutes prior to opening the sampling petcock. After the wells have been purged, each sample container will be gently filled from the pump line, taking care to avoid aeration and turbulence in the sample. Base production wells which are not on-line, and which are also not serviceable, can not be sampled--their condition will be noted in the field log to document the inability to obtain samples.

#### 10.4.3 Quality Assurance/Quality Control-Water Sampling

In order to validate field and analytical techniques, field blanks and field duplicates of the water samples will be collected, which will amount to fifteen percent of the total samples collected. One field blank will be collected per day of sampling, for the duration of the sampling round. Field blanks will consist of deionized water, identical to the water used in equipment decontamination. They will be collected using methods and equipment the same as, or as close as possible to, those used in actual sample collection. This procedure will be repeated for each sampling round. Field duplicates will be collected at selected stations, which will be chosen by the WESTON field team leader prior to initiation of water sampling. Duplicates will be collected as separate samples not as splits of a single sample. The field blanks and duplicates will be documented in the samplers log book, and the samples will be numbered according to the numbering system described in Section 7.3.



## 11.0 DECONTAMINATION PROCEDURES

### 11.1 Drilling, Soil Sampling, and Monitor Well Installation

The drilling rig and materials will arrive on site in clean condition. Prior to the start of the drilling, all drill rods, augers, bits, tank, and split-spoons will be steam cleaned at an area on-site set up for this purpose. Augers, tools, drill rods, and casing will be inspected to ensure that all residue such as muds and machine oils have been removed. Similar decontamination procedures will be implemented between each bore hole to prevent cross-contamination and ensure the integrity of the samples.

### 11.2 Well Development

Each well will be developed after installation is complete, using a pump rig with a swab and bailer. This equipment will be washed with clean potable water following development of each successive well. A well will be considered developed when the discharge water is clear and free of sediment.

### 11.3 Water Level Measurements

The water level indicator used for determining water levels in the wells will be decontaminated before measuring each well. The instrument will be decontaminated by flushing the electrical probe with copious amounts of distilled water. Solvents will not be used because the parameters of concern at many of the sites include solvents.





#### 11.4 Water Sampling

Each monitor well will have its own dedicated submersible pump so no pump decontamination will be necessary between wells. All parameters will be sampled directly from the pump discharge rather than from a bailer. If it becomes necessary to re-use any piece of sampling equipment, the decontamination procedure is as follows:

- a. Place dirty equipment on plastic ground sheet at the head of the "decon line."
- b. Rinse equipment in tub of potable water to remove surface dirt and mud, if necessary.
- c. Scrub equipment with a bristle brush in a basin filled with detergent and potable water.
- d. Rinse soap off in a tub of potable water.
- e. Rinse with methanol.
- f. Final rinse with distilled water.
- g. Place decontaminated equipment on clean plastic ground sheet for drying.



### 11.5 Sediment Sampling

The drill rig, bucket auger, teflon or stainless steel scoops, as well as other miscellaneous soil sampling equipment will be decontaminated between soil borings or excavations.

The procedure for decontaminating the sampling equipment is as follows:

- a. All drill rods, augers, bits, tools, backhoe buckets, and drill rigs will be steam cleaned at an approved area on-site.
- b. All other dirty equipment (i.e. split-spoons, stainless steel trowels, teflon scoops, etc.) will be placed on a plastic sheet at the head of the "decon line."
- c. Rinse equipment in tub of potable water to remove surface dirt and mud, if necessary.
- d. Scrub equipment with a bristle brush in a basin filled with detergent and potable water.
- e. Rinse soap off in a tub of potable water.

- f. Rinse with methanol.
- g. Final rinse with distilled water.
- h. Place decontaminated equipment on clean plastic ground sheet for drying.

## 11.6 Sample Handling

All soil samples will be taken with care to ensure that they will be as undisturbed as possible prior to analysis in order that any contaminants present will not be winnowed out of the sample. All soil and water samples will be collected and shipped to the laboratory as quickly and efficiently as possible. Only specially prepared sample jars will be used for taking and storing samples for pending analyses.

# WESTON

## 12.0 SAMPLE HANDLING AND PACKING

### 12.1 Split Sample Procedures

Duplicates of all soil and water samples will be collected for potential analysis by the USAFOEHL laboratory. Sample containers and sampling procedures will be identical to those used for collection of samples to be analyzed by the WESTON laboratory. One set of samples will be delivered on the same day that collection took place to the field government point-of-contact (POC). The field POC will select 10% of the samples for analysis, package them using packaging material supplied by WESTON and deliver them to the WESTON field personnel for shipment within 24 hours of receipt.

### 12.2 Sample Container and Preservation

All sample containers and preservation techniques will conform to USEPA standards.

Table 12-1 lists the sample containers, amount of sample needed, preservation techniques and holding times for the soil and water samples to be collected during the Stage 2 investigation.

### 12.3 Sample Handling and Packing - General

Samples obtained at uncontrolled hazardous waste sites are classified as either environmental or hazardous samples. Environmental samples are those which contain low levels of contaminants and require implementation of limited precautionary measures. Environmental samples are collected beyond

TABLE 12-1  
 SAMPLE AMOUNT, CONTAINER, PRESERVATION AND MAXIMUM ALLOWABLE HOLDING TIME

Parameter	Matrix	Amount	Container	Preservation	Maximum Holding Time
1. Volatile Organics plus xylene	Water	40 mL	40 mL glass vial	Cool, 4°C	14 days
2. Base/Neutral Acid compounds	Water	1 liter	1 liter amber glass	Cool, 4°C	7/40 days*
3. Oil and Grease	Water	1 liter	1 liter glass	H <sub>2</sub> SO <sub>4</sub> , pH <2	28 days
4. Total Organic Carbon (TOC)	Water	250 mL	250 mL glass	HCl or H <sub>2</sub> SO <sub>4</sub> pH <2	28 days
5. Priority Pollutant Metals	Water	1 liter	1 liter plastic	HNO <sub>3</sub> , pH <2	6 months
6. Mercury (Hg)	Water	500 mL	500 mL plastic	HNO <sub>3</sub> , pH <2	28 days
7. Priority Pollutant Pesticides	Water	1 liter	1 liter amber glass	Cool, 4°C	7/40 days*
8. MEK	Water	40 mL	40 mL glass	Cool, 4°C	14 days
9. Gross Alpha, Beta, Gamma, Radium-226	Water	1 gallon	plastic	Cool, 4°C	6 months
10. DBCP	Water	40 mL	40 mL glass vial	Cool, 4°C	14 days

\*Extraction/Analysis

Table 12-1 (Continued)

Parameter	Matrix	Amount	Container	Preservation	Maximum Holding Time
11. Nitrate	Water	500 mL	Plastic	Cool, 4°C	48 hours
12. Nitrite	Water	500 mL	Plastic	Cool, 4°C	48 hours
13. Total Kjeldahl Nitrogen (TKN)	Water	500 mL	Plastic	H <sub>2</sub> SO <sub>4</sub> , pH <2	28 days
14. Volatile Organics	Soil	50 gm	40 mL glass vial	Cool, 4°C	14 days
15. Priority Pollutant Metals	Soil	250 gm	1 liter glass	Cool, 4°C	6 months
16. Petroleum Hydrocarbons	Soil	200 gm	1 liter glass	Cool, 4°C	28 days
17. Oil and Grease	Soil	200 gm	1 liter glass	Cool, 4°C	28 days
18. MEK	Soil	50 gm	40 mL glass	Cool, 4°C	14 days

# WESTON

the perimeter of the waste or spill site, and have no visible staining or odor. All samples collected from the five sites at Luke AFB during the Stage 2 investigation are expected to be environmental samples. Hazardous samples are those which are collected directly in or below an active or former waste site and could possibly contain dangerous levels of contaminants.

All sample containers will be handled with gloves. The outside of all sample containers will be decontaminated prior to shipment by washing off any soil residue with potable water. WESTON will supply all packing and shipping materials for all samples. The field POC will pack the samples to be sent to OEHL, and WESTON will pack the other set of samples.

## 12.4 Procedures for Packing Low Concentration Samples

Samples assumed to have low concentrations of contaminants, environmental samples, will be collected in the appropriate containers as detailed in Section 12.2. The sealed and labeled container is then placed inside a watertight ziplock polyethylene bag. The sealed packages are then placed inside an ice chest and packed with an absorbent packaging material, such as vermiculite, to prevent breakage. Ice will be placed on top of the samples (blue ice, if possible) to keep them cool during shipment. The ice chests will be sealed with a custody seal and strapping tape.

## 12.5 Procedures for Packing Medium Concentration Samples

Samples suspected of having medium levels of contaminants, hazardous samples, will be packed according to the following procedure:

# WESTON

The sample container will be placed in a separate 2-mil thick (or heavier) watertight ziplock polyethylene bag. Each sealed bag will be placed inside an appropriate sized metal can with enough non-combustible, absorbent packaging material (i.e. bentonite, vermiculite, or diatomaceous earth) to prevent breakage and provide for absorption of liquid, with one bag per can. The can will be pressure closed and clips or tape will be used to hold the lid securely.

The metal cans will be placed in a strong outside container, such as an ice chest, and surrounded with vermiculite or similar substitute for stability during transport. Ice will be placed on top of the samples to keep them cool during shipment. The ice chest will be sealed with a custody seal and strapping tape. The appropriate stickers will be placed on the ice chest to indicate its contents may be hazardous, as specified by the U.S. DOT or the State DOT, whichever is more stringent.



## 13.0 SAMPLE CUSTODY AND DOCUMENTATION

### 13.1 Sample Identification Documents

Samples are to be collected following the procedures described in Section 8.3 for soil sampling and Section 10.4 for groundwater and surface water sampling. A field sampling sheet (see Figure 13-1) will be used to document water sampling. This sheet will include information such as time and date of sampling, sample identification number (see Section 7.0), equipment used to collect the sample, depth to water in the well, and field measurements of pH, temperature, and conductance.

Soil sampling will be documented in the field log books. Information will include time and date of sampling, the sample identification number, the depth at which the soil sample was collected, and a physical description of the soil sample. Also, any soil discoloration or odor will be noted. These entries will be organized into easily understandable tables if possible.

### 13.2 Chain-of-Custody Records

To maintain a record of sample collection, transfer between personnel, shipment, and receipt by the laboratory, a "chain-of-custody" record will be filled out for each sample at each sampling location. Each time the samples are transferred, signatures of the persons relinquishing and receiving the samples, as well as the date and time, will be documented. A separate chain-of-custody record will be maintained for the OEHL samples. A sample chain-of-custody record is shown in Figure 13-2.



Figure 13-1

FIELD SAMPLING SHEET

Site Location \_\_\_\_\_ Well No.: \_\_\_\_\_  
\_\_\_\_\_  
Date: \_\_\_\_\_  
\_\_\_\_\_  
Time: \_\_\_\_\_

Samplers: \_\_\_\_\_

Well Condition

Protective Casing: Intact/Damaged: \_\_\_\_\_  
Locked: Yes/No \_\_\_\_\_  
Concrete Pad: Intact/Damaged: \_\_\_\_\_

Well Specs

Diameter: \_\_\_\_\_ in.  
Depth to Water \_\_\_\_\_ ft. Reference Pt.: \_\_\_\_\_  
Total Well Depth \_\_\_\_\_ ft.  
Conversion Factors: 2" = 0.1632 gpf 4" = 0.6528 gpf 6" = 1.4688 gpf  
Volume H<sub>2</sub>O In Casing: \_\_\_\_\_ gal. Total Purged Volume: \_\_\_\_\_ gal.

Sampling

Evacuation By: Bailing/Pump/Other \_\_\_\_\_  
Sampling By: Bailing/Pump/Other \_\_\_\_\_  
Purge Times: Start: \_\_\_\_\_ hrs. Stop: \_\_\_\_\_ hrs.  
Duplicate Taken: Yes/No # \_\_\_\_\_

Field Measurements

Temp: \_\_\_\_\_ °C pH: \_\_\_\_\_ Conductance: \_\_\_\_\_ umhos/cm

Comments:



# Custody Transfer Record/Lab Work Request

Figure 13-2

Received By \_\_\_\_\_ Client \_\_\_\_\_ RFW Contact \_\_\_\_\_  
 Date \_\_\_\_\_ Client Contact \_\_\_\_\_ Date Due \_\_\_\_\_  
 Assigned to \_\_\_\_\_ Phone \_\_\_\_\_ Project Number \_\_\_\_\_

### SAMPLE IDENTIFICATION

Sample No.	Client ID No.	Description	Date Collected	Container/Preservative	ANALYSES REQUESTED																		

### SPECIAL INSTRUCTIONS

Items/Reason	Relinquished By	Received By	Date	Time	Items/Reason	Relinquished By	Received By	Date	Time														

FW 13 23 001 A 2 85

### 13.3 Field Log books

All data collecting activities performed at a site will be documented in the field notebook. Entries will be as detailed and descriptive as possible, so that a particular situation could be recalled without reliance on the collector's memory. All log book entries will be dated. Field notebooks will be bound books and will be assigned to individual field personnel for the duration of the project.

The cover of each notebook will contain the following information:

- o Person to whom the book is assigned.
- o Project Name.
- o Start Date
- o End Date

### 13.4 Sample Labelling

All samples will be identified with a label which will be attached directly to the container. Sample labels will be completed with a waterproof pen. The labels will contain the following information:

- o sample number
- o time and date of collection
- o installation (Base) name
- o parameter to be analyzed
- o preservative (if any)

- o sample source/location
- o samplers initials

As each sample is collected, it will be placed in a labelled container. Sample numbers will have been determined before the field investigation begins. See Section 7.0 for descriptions of the sample numbering system.

#### 13.5 Corrections to Documentation

All measurements made and samples collected will be recorded. All entries will be made in pen. No erasures are permitted.

If an incorrect entry is made, the data will be crossed out with a single strike mark and initialled.

#### 13.6 Traffic Reports

All packages will be accompanied by the chain-of-custody record showing identification of the contents. The original record will accompany the shipment, and a copy will be retained by the field team leader.

A copy of the shipping bill will also be kept as part of the sample tracking documentation.

#### 13.7 Shipping Information

Each ice chest or container to be shipped will be marked with "Laboratory Supplies" and "This Side Up" or "This End Up" and arrows pointing upward will be placed on the exterior of the container.

# WESTON

All samples will be shipped via courier such as Federal Express, Emery, or other overnight delivery service. Hazardous or environmental samples may be transported by WESTON personnel in private vehicles if the samples are properly packaged and labelled.



#### 14.0 SITE CLEAN-UP

All monitor well and soil boring drill cuttings will be removed from the general area following the completion of each well and boring. Drill cuttings suspected as being hazardous materials (based on discoloration, odor, or HNu/OVA detection) will be properly containerized and moved by the drilling subcontractors to approved locations on Luke Air Force Base. New, unused drums will be supplied by the drilling subcontractors to containerize the suspected hazardous drill cuttings. Suspected hazardous waste will be sampled and tested for EP toxicity, ignitability, oil and grease, and total organic halogens (TOX). The ultimate disposal of the containerized hazardous waste will be conducted by Base personnel using Base resources.



## 15.0 FIELD TEAM ORGANIZATION AND RESPONSIBILITIES

A WESTON Project Team has been organized to meet the needs and objectives of the program. The organization and delegation of responsibilities is discussed below.

### 15.1 Organization and Responsibilities

The Project Manager for WESTON's IRP tasks is Katherine Sheedy, P.G. Ms. Sheedy is responsible for the overall management of this project and is the direct contact individual between OEHL and WESTON. Kwasi Boateng, P.G., is the Task Manager who is responsible for the technical management of this Task assignment, including scheduling, subcontracting communications, technical supervision and execution of the field effort. Deborah Jones is the field Team Leader for this task who will be responsible for organizing the field team and directing the work of subcontractors in the field. Ms. Jones will be directly responsible for implementation of the Technical Operations Plan, daily review of field logs, and providing daily communication with the Task Manager to report project progress, identify problems and implement solutions.

### 15.2 Training

Prior to commencement of the field work, the field Team Leader will call a meeting of all field personnel to discuss, in detail, the implementation of the TOP and the Site Safety Plan, and each team member's responsibilities. A copy of each plan will be given to each member and the Team Leader will ensure that each member is familiar with the field plans.



# WESTON

Once the field work begins, the field Team Leader will call meetings in the field to review each day's work and also identify existing and potential problems and implement solutions. The field team will maintain daily contact with the Task Manager.



Table 16-1  
 LDRE AFB SCHEDULE  
 PHASE II, STAGE 2  
 1986-1987

Activity	1986			1987		
	September	October	November	December	January	February
Project Start-up Meeting	1 8 15 22 29 *	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26	2 9 16 23
Locate soil gas probes obtain clearances	*					
Soil Gas Analysis	***					
Locate soil borings, obtain clearances	*					
Geophysical Surveys (GPR and EM)	****					
Drill 27 soil borings		*****				
Install 2 Monitor Wells, Facility 993			***			
Install 11 Monitor Wells			*****			
Well Stabilization				*****		
Ground Water Sampling Round 1				****		
Ground Water Sampling Round 2					****	
Ground Water Sampling Round 3						****

Site Safety Plan



WORK LOCATION PERSONNEL PROTECTION  
AND SAFETY EVALUATION FORM

Attach Pertinent Documents/Data

Fill in Blanks As Appropriate

WO # 0628-09-15

Reviewed by \_\_\_\_\_

Division Geosciences

Date \_\_\_\_\_

Office West Chester, PA

Approved by \_\_\_\_\_

Prepared by Deborah Jones

Date \_\_\_\_\_

Date 26 August 1986

A. Work Location Description

1. Name Luke Air Force Base

2. Location \_\_\_\_\_

Arizona

13 miles west of

Phoenix, AZ

3. Type: HW Site ( X )

Industrial ( )

Spill ( )

Construction ( )

( ) Existing WESTON Work Location

( ) Existing Client Work Location

Other ( ) Describe Five locations on Base, including Fire

Training Areas, Oil-Water Separator and Sewage TP Canal and POL  
Trenches

4. Status Active and inactive

5. Anticipated activities: Soil gas probes, soil borings,

monitor wells, soil and water sampling (see Table 1)

6. Size varied

7. Surrounding Population On-Base housing, small trailer park 1 mi.

8. Buildings/Homes/Industry Salt-mining operation 2 mi. from

Base.



9. Topography Flat

10. Anticipated Weather Dry, warm to hot (90° 's)

11. Unusual Features Depth to groundwater 350 - 400 feet

12. Site History Fire Training Areas South and North inactive;  
Oil-water separator and sewage TP active, current Fire Training  
Area active, POL Trenches and Lagoon - inactive (See attached  
sheets for more detail).

**B. Hazard Description**

1. Background Review: Complete ( X ) Partial ( )

If partial, why? \_\_\_\_\_

2. Hazard Level: A ( ) B ( )

Unknown ( ) C ( ) D ( X )

Justification \_\_\_\_\_

3. Types of Hazards: (Attach additional sheets as necessary)

A. Chemical ( X ) Inhalation ( X ) Explosive ( )

Biological ( ) Ingestion ( X ) O<sub>2</sub> Def. ( )

Skin Contact ( X ) Toxic ( )

Describe \_\_\_\_\_

B. Physical ( ) Cold Stress ( ) Noise ( )

Heat Stress ( X ) Other ( )



Describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C. Radiation ( )

Describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Nature of Hazards:

Air ( ) Describe No ambient air monitoring information.  
available.

Soil ( X ) Describe See attached sheets.

Surface Water ( X ) Describe Some portions of oil-water  
separator canal have thick oil film at times.

Groundwater ( X ) Describe Only production wells have been  
sampled to date. Very low levels of VOA's in some.

Other ( ) Describe \_\_\_\_\_  
\_\_\_\_\_

5. Chemical Contaminants of Concern ( ) N/A

1 = Inhalation  
 2 = Absorption  
 3 = Ingestion  
 4 = Contact

<u>Contaminant</u>	<u>TLV (PPM)</u>	<u>I.D.L.H. (PPM)</u>	<u>Source/Quantity Characteristics</u>	<u>Route of Exposure</u>	<u>Symptoms of Acute Exposure</u>	<u>HNU W/10.2 EV Instruments Used to Monitor Contaminant</u>
Benzene	10 (C)	2000	Soils at Facility 993	1,2,3,4	Irrit eyes, nose, resp. system.	IP=9.25
Toluene	100	2000	Soils	1,2,3,4	Ftg., weak, throat choke	IP=8.82
Xylene	100	10000	Soils	1,2,3,4	Dizz, drowsiness irrit eyes, nose throat.	IP=8.6
TCE	50	1000	Soils	1,2,3,4	Headache, tremors vomit, irrit eyes	IP=9.47 EV
1,2 Dichloro-ethane	100	4000	Soils	1,2,4	Skin irrit, drowsiness	IP=9.6
trans-1,2-Dichloro-ethylene	200	4000	Soils	1,2,4	Irrit eyes resp. system	IP=9.6
1,1 Dichloroethylene						
Bromodichloro-methane	200	5000	Soils	1,2,4	Dizziness, irrit, eyes, throat, skin	IP=10.8
Chloroform	10	1000	Soils	1,2,4	Dizziness, nausea headache, fatigue	IP=11.42
1,1,1-Trichloro-ethane	10	500	Soils	1,2,3,4	Irrit nose, eyes depression	

6. Physical Hazards of Concern ( ) N/A

<u>Hazard</u>	<u>Description</u>	<u>Location</u>	<u>Procedures Used to Monitor Hazard</u>
Heat Stress	If Level C is necessary, body core temperature must be maintained below 99°.	On-site at any drilling/sampling locations	Monitor personnel: - appearance - responsiveness provide water and electrolyte replacement





7. Work Location Instrument Readings ( X ) N/A

No ambient work location monitoring has been performed to date.

Location \_\_\_\_\_

% O<sub>2</sub> \_\_\_\_\_

% LEL \_\_\_\_\_

Radioactivity \_\_\_\_\_

PID \_\_\_\_\_

FID \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Location \_\_\_\_\_

% O<sub>2</sub> \_\_\_\_\_

% LEL \_\_\_\_\_

Radioactivity \_\_\_\_\_

PID \_\_\_\_\_

FID \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Location \_\_\_\_\_

% O<sub>2</sub> \_\_\_\_\_

% LEL \_\_\_\_\_

Radioactivity \_\_\_\_\_

PID \_\_\_\_\_

FID \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Location \_\_\_\_\_

% O<sub>2</sub> \_\_\_\_\_

% LEL \_\_\_\_\_

Radioactivity \_\_\_\_\_

PID \_\_\_\_\_

FID \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

8. Hazards expected in preparation for work assignment. ( ) N/A

Describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



C. Personnel Protective Equipment

1. Level of Protection

A ( ) B ( ) C ( ) D (X) Location/Activity:

Level D will be used during field activities. Readings on the HnU which exceed 25ppm will dictate the need to upgrade. At locations where chloroform is suspect, Drager Tubes will be used to screen for chloroform in the top 20 feet of drilling.

A ( ) B ( ) C (X) D ( ) Location/Activity:

When HnU exceeds 25ppm (w/10.2 probe); when HnU exceeds 5ppm in benzene suspect area; if chloroform is detected after consult w/h.S.

2. Protective Equipment (specify probable quantity required)

Respiratory ( ) N/A

- ( ) SCBA, Airline
- (X) Full Face Respirator  
(Cart. GMC-H)

( ) Escape Mask

( ) None

( ) Other \_\_\_\_\_

( ) Other \_\_\_\_\_

Head & Eye ( ) N/A

(X) Hard Hat

( ) Goggles

( ) Face Shield

( ) Chemical Eyeglasses

( ) None

( ) Other \_\_\_\_\_

Clothing ( ) N/A

( ) Fully Encapsulating Suit

( ) Chemically Resistant  
Splash Suit

( ) Apron, Specify \_\_\_\_\_

(X) Tyvek Coverall

( ) Saranex Coverall

( ) Coverall, Specify \_\_\_\_\_

( ) Other \_\_\_\_\_

( ) Other \_\_\_\_\_

Hand Protection ( ) N/A

(X) Undergloves Latex  
Type

(X) Gloves \_\_\_\_\_  
Type

( ) Overgloves \_\_\_\_\_  
Type

( ) None

( ) Other \_\_\_\_\_

Foot Protection ( ) N/A

(X) Safety Boots

(X) Disposable Overboots

( ) Other \_\_\_\_\_

3. Monitoring Equipment ( ) N/A

(X) CGI

( ) PID

( ) O<sub>2</sub> Meter

( ) FID

( ) Rad Survey

(X) Other HNu (2) with 10.2 probe

( ) Detector Tubes

and one 11.7 probe

Type: \_\_\_\_\_

(X) Other Drager tubes for

chloroform

D. Personnel Decontamination (Attach Diagram)

Required ( )

Not Required (X) unless Level C is warranted

Equipment Decontamination (Attach Diagram)

Required (X)

Not Required ( )

If required, describe and list equipment \_\_\_\_\_

Split Spoons Decontaminate with water and soap

Augers Decontaminate with water and soap

Sampling Instruments Decontaminate with water and soap

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**E. Personnel**

<u>NAME</u>	<u>WORK LOCATION TITLE/TASK</u>	<u>MEDICAL CURRENT</u>	<u>FIT TEST CURRENT</u>	<u>CERTIFICATIO LEVEL</u>
1. Deborah Jones	Field Team Leader	( yes )	( yes )	( C-T )
2. Kwasi Boateng	Geologist/Task Manager	( X )	( no )	( D-T )
3. Rich Johnson	Geologist/Proj. Manager	( X )	( X )	( B-T )
4. Steve Michelson	Geologist	( X )	( X )	( B-T )
5. Chris Krumm	Geologist	( X )	( X )	( B-T )
6.		( )	( )	( )
7.		( )	( )	( )
8.		( )	( )	( )
9.		( )	( )	( )
10.		( )	( )	( )

Site Safety Coordinator Deborah Jones

F. Activities Covered Under this Plan

Task No.	Description	Preliminary Schedule
1	Soil Borings & Sampling (100 ft.)	10/6 - 10/23
2	Sediment and surface water sampling	10/6 - 10/23
3	Monitor well installation (350 - 400 ft.)	11/3 - 11/26
4	Groundwater sampling	12/15 - 12/19, 1986 1/5 - 1/12, 1987 1/26 - 2/2, 1987

See Table 1 for summary of specific actions at each site.

G. Subcontractor's Health and Safety Program Evaluation ( ) N/A

Name and Address of Subcontractor (s): 1) Western Technologies, Inc. - Phoenix, AZ  
2: Beylik Drilling, Inc. - Lahabra, CA

Activities to be Conducted by Subcontractor(s): 1) Soil borings  
2) Monitor well drilling and installation

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EVALUATION CRITERIA

<u>Item</u>	<u>Adequate</u>	<u>Inadequate</u>	<u>Comments</u>
Medical Surveillance Program	( X )	( )	
Personal Protective Equipment Availability	( X )	( )	
On-Site Monitoring Equipment Availability	( )	( )	
Safe Working Procedures Specification	( )	( )	
Training Protocols	( )	( )	
Ancillary Support Procedures (if needed)	( )	( )	
Emergency Procedures	( )	( )	
Evacuation Procedures Contingency Plan	( )	( )	
Decontamination Procedures Equipment	( )	( )	
Decontamination Procedures Personnel	( )	( )	

GENERAL HEALTH AND SAFETY PROGRAM EVALUATION: ADEQUATE ( ) INADEQUATE ( )

ADDITIONAL COMMENTS: Both subcontractors are aware that Level C may be required if elevated contaminant levels are detected with the HNu or CGI.

EVALUATION CONDUCTED BY: Deborah Jones

DATE: 28 August 1986



H. Contingency Contacts

<u>Agency</u>	<u>Contact</u>	<u>Phone Number</u>
Fire Department		117
Police Department		856-6322
Health Department		856-7823
Poison Control Center		
State Environmental Agency	Lauren Evans Clay Cady	602-257-2350 602-255-1586
EPA-Regional Office	N/A	
EPA-ERT. ICOM	N/A	
Spill Contractor	N/A	
State Police	N/A	
F.A.A.	N/A	
Civil Defense	N/A	
On Site Coordinator	Mjr. Jesse Humberd Lt. Cathy Vogel	602-856-7521
Site Telephone	None	
Nearest Telephone	BEE Office - Building 1130 (Location)	
Other	Gas station on Base	

I. Contingency Plans

- Spill, Accidental Release; Describe If an injury occurs on-site,  
personnel will receive first aid if minor, and professional medical attention if necessary. The director of corporate H&S will be informed.
- MINU/CGI READINGS: If readings exceed 25 ppm consistently, work will stop and  
personnel will upgrade to Level C. The director of health and safety will be notified and an established decon line will be set up. If the CGI indicates critical levels all work will halt and personnel will consult with the director of corporate health and safety, base personnel and the task manager.
- Exit Routes, Communication Systems; Describe Field personnel can be reached by telephone through Mjr Humberd or Lt. Vogel. If teams are working at separate sites, each team will have a vehicle.



MEDICAL EMERGENCY

Name of Hospital Luke Air Force Base Hospital

Address: Bldg. 1130, Litchfield Road Phone No. 856-7891

Name of Contact \_\_\_\_\_

Address: \_\_\_\_\_ Phone No. \_\_\_\_\_

Route to Hospital: (Attach Map) Figure 1

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Travel Time  
From Site (Minutes) 5 min.

Distance to  
Hospital (Miles) 1

Name/Number of 24 Hr. Ambulance Service 856-7517

Base Ambulance





HEALTH AND SAFETY PLAN  
APPROVAL/SIGN OFF FORMAT

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

<u>Deborah L. Jones</u> Name	<u>[Handwritten Signature]</u> Signature	_____ Date
_____ Name	_____ Signature	_____ Date
_____ Name	_____ Signature	_____ Date
_____ Name	_____ Signature	_____ Date
_____ Name	_____ Signature	_____ Date
<u>Site Safety Co-ordinator</u>	_____ Signature	_____ Date
<u>George M. Crawford</u> Director, Corporate Health and Safety	_____ Signature	_____ Date
_____ Project Manager	_____ Signature	_____ Date
_____ Project Director/ Department Manager	_____ Signature	_____ Date
<u>Personnel Health and Safety Briefing Conducted By:</u>		
_____ Name	_____ Signature	_____ Date



SITE HISTORIES

# WESTON

## SAFETY PLAN

LUKE AFB

### Site History

#### 1. North Fire Training Area (& Current Fire Training Area)

These sites are in close proximity to Base Production Wells 8, 9, 10 and 12, the northern Base boundary and two off-Base irrigation wells. They are being combined for the purposes of the Stage 2 investigation. Four borings were drilled in this area in 1984 to a maximum depth of 20 feet. An HNu was used to monitor the air for presence of organic vapors in the open borehole. Readings ranged from 100-300 ppm in the upper five feet, and from 3-35 ppm from 15-20 feet. Table 2 summarizes the soil chemistry data for this site obtained from the 1984 Stage 1 investigation. High levels of oil and grease were found in surface soils, with concentrations decreasing with depth. The VOA compounds found most commonly included 1,1-Dichloroethylene; chloroform; bromodichloromethane; 1,2-Dichloroethane, and 1,1-Dichloroethane. Some contamination was detected in groundwater samples taken from Well 10, which is adjacent to the Fire Training Areas. Table 3 summarizes water quality data from all Base production wells. VOA compounds detected in Well 10 included 1,2-Dichloroethane and trans 1,2-Dichloroethylene.

## Site History

### 2. South Fire Training Area

This site is located close to the southern Base boundary and off-base irrigation wells. Soil samples were taken from depths of 2 to 3 feet in a construction area in the Stage 1 investigation. No organic vapor readings are available. The results of analytical testing are summarized in Table 4. Oil and grease concentrations were high in S-1 and S-2, and VOA compounds 1,1,1-trichloroethane, chloroform, trichloroethylene and bromodichloromethane were detected in varying concentrations. As shown in Table 3, a groundwater sample from Well 11 had 50 ug/l of lead.

### 3. POL Trenches and Lagoon

This site was used for disposal of fuel, oils and solvents. Liquid wastes were distributed in shallow trenches and allowed to weather before the trenches were backfilled. A shallow lagoon was also used for storage of liquid wastes. During the Stage 1 investigation, ten soil borings were drilled and sampled to a maximum depth of 20 feet. HNu readings obtained during drilling were very low (a few ppm above background). Table 5 summarizes soil chemistry for the soil samples. Lead concentrations ranged from 53 to 304 ug/kg, and oil and grease concentrations were low. Five VOA compounds were detected, the most common of which was chloroform.

## Site History

### 4. Sewage Treatment Plant (STP) Effluent Canal

This site is located two miles east of the main Base. An area adjacent to the STP was used as a landfill from 1953 until 1970. A small quantity of low-level radioactive electron tubes was buried at this site in 1956. The tubes were encased in concrete and disposed of in a pit 12 feet deep with 4 feet of concrete cover and 6 feet of earth cover. A radiological survey by Luke AFB in 1984 showed no measurable radiation above background at the site. Well 4, located adjacent to the STP, was found to have low levels of gross beta and gross gamma when analyzed in 1984. These results are shown in Table 3. Also as part of the Stage 1 investigation, the influent and effluent of the STP were analyzed for VOA compounds. Results are shown in Table 6.

### 5. Oil-Water Separator Canal

This site was not part of the 1984 Stage 1 investigation. It is located adjacent to the southern Base boundary, and effluent is discharged to a canal, which crosses onto private property less than one mile downstream. An oil film has been noted on the surface of the water in the canal on several occasions. No soil sampling or ambient air monitoring has been done at this site.

TABLE I  
 SUMMARY OF SPECIFIC ACTIONS  
 PHASE II, STAGE 2 SITES  
 LUKE AFB, ARIZONA

SITES	ACTIONS									
	Soil Borings	Monitor Wells	Soil Gas	Soil Samples	Groundwater Samples	Effluent Samples	Surface Water Samples	Geophysical	Soil	Soil
1. Base Production Wells	--	--	--	--	27	--	--	--	--	--
2. Sewage Treatment Plant Effluent Canal	6	1	30 probes	46*	3	9	--	--	--	--
3. Oil-Water Separator Canal	6	2	20 probes	68**	6	--	2	--	--	--
4. POL Trenches & Lagoon	9	3	30 probes	90	9	--	--	--	GPR and EM	--
5. South Fire Training Area	2	2	--	40	6	--	--	--	--	--
6. Current & North Fire Training Area	4	3	--	80	9	--	--	--	--	--

\* Includes 10 sediment samples from canal  
 \*\* Includes 20 sediment samples from canal  
 -- Not Analyzed at this site



Site History

## 6. Facility 993

This site, Facility 993, was former underground storage tank area for storage of contaminated jet fuel, oils and solvents. It is being investigated in order to obtain a RCRA closure permit. Three monitor wells were installed in December 1985 using mud rotary technique, and two more monitor wells are to be installed in November 1986. Air monitoring with an HNu was performed during monitor well installation and no detectable levels of organic vapors were observed. It is expected that the use of mud during drilling will reduce the volatilization of organic vapors, and eliminate the need for respiratory protection at this site.



TABLE 3 : SUMMARY OF WATER QUALITY DATA FROM PRODUCTION WELLS (cont'd)

Sample No.	DRCP	Lead	Oil & Grease	Fe, P, S <sup>2-</sup>	Mn-226	Gross / liter	Gross beta	Gross gamma	VOC Compounds <sup>4</sup>			
									1,2-Dichloroethane	1,2-Dichlorobenzene	(Trans) 1,2-Dichloroethylene	
Well No. 1	<0.1	NR <sup>1</sup>	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Well No. 4	<0.1	NR	100	1	<0.004	2	14.4	38.4	1.4	NR	NR	0.1
Well No. 7	<0.1	NR <sup>2</sup>	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Well No. 8 <sup>5</sup>												
Well No. 9 <sup>5</sup>												
Well No. 10	0.1	NR	100	50	NR	NR	NR	NR	10.8	NR	NR	100.0
Well No. 11	<0.1	50	100	50	NR	NR	NR	NR	0.07	NR	NR	0.10
Well No. 12	<0.1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

1. NR indicates not required by task order
2. As 2,4-Dimethylphenol
3. Picocuries per liter
4. For a complete list of compounds analyzed see Table 4-2. Compounds listed in Table 4-2, but not found at the Method 601 or 602 detection limits are not reported here.
5. These wells were not serviced and not be sampled.

Table 4 : SUMMARY OF SOIL CHEMISTRY DATA  
SOUTH FIRE DEPARTMENT TRAINING AREA

Sample	Approximate Depth (feet)	Oil and Grease (mg/g)	1,1,1-tri- chloroethane	Chloroform	Chloro- ethylene	Bromodi- chloromethane	Unidentified Peaks
S-1	1	14,600	0.004	0.162	0.022	0.003	0
S-2	2	36,500	<0.001	0.033	<0.001	<0.001	0
S-3	2	1,250	<0.001	<0.001	<0.001	<0.001	0
S-4	1	197	0.002	0.057	0.016	0.001	1

1 - For a complete list of compounds analyzed see Table 4-1. Compounds listed in Table 4-2, but not found at a detection limit of 0.001 mg/g are not reported here. Methylene Chloride was detected in all samples, QA duplicates and blanks - cross-contamination within laboratory is indicated, so no methylene chloride results are included here.

TABLE 5 : SUMMARY OF SOIL CHEMISTRY DATA,  
WASTE POL DISPOSAL TRENCHES

Boring No./ Sample No.	Sample Depth (ft.)	HNO <sub>3</sub> Residue (1%)	Oil & Grease (ug/g)	Lead (ug/kg)	VOA Compounds (ug/b) <sup>1</sup>					
					1,2-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	(Trans) 1,2-Dichloroethylene	Chloroform	Unidentified Peaks
B1-4	4.5-6.0	6	209	161	.001	.001	.001	.001	.001	0
B1-14	19.5-21.0	3	16	100	.001	.001	.001	.001	.001	0
B2-4	4.5-6.0	5	26	103	.001	.001	.001	.001	.001	0
B2-15	19.5-21.0	3	75	53	.001	.001	.001	.001	.001	0
B3-6	7.5-9.0	5	10	304	.003	.001	.001	.001	.008	0
B3-14	19.5-21.0	2	10	145	.012	.014	.010	.011	.001	0
B4-9	8.0-9.0	6	10	151	.001	.001	.001	.001	.001	0
B5-5	4.0-5.0	5	18	104	.001	.001	.001	.001	.120	0
B6-15	14.0-15.0	5	38	101	.001	.001	.001	.001	.200	0
B7-20	19.0-20.0	But	43	112	.001	.001	.001	.001	.160	0
B8-6	5.0-6.0	5	63	114	.001	.001	.012	.001	.055	0
B10-10	9.0-10.0	5	10	103	.001	.001	.001	.001	.001	0

<sup>1</sup> For a complete list of compounds analyzed see Table 4-2. Compounds listed in Table 4-2 but not found at a detection limit of .001 ug/g are not reported here. Methylene chloride was detected in all samples, BA duplicates and blanks - cross-contamination within laboratory is indicated, so no Methylene chloride results are included here.

TABLE 6 : SUMMARY OF WATER QUALITY DATA,  
WASTEWATER TREATMENT PLANT (ug/l)

<u>Analyte</u>	<u>Influent</u>	<u>Effluent</u>
Phenol	53.0	5.0
1,2-Dichloroethane <sup>2</sup>	1.0	2.9
1,1,1-Trichloroethane	4.8	< 0.03
1,1-Dichloroethane	2.5	< 0.07
Chloroform	0.17	2.0
1,2-Dichlorobenzene	3.8	< 0.15
Bromodichloromethane	< 0.10	0.15
1,3-Dichlorobenzene	15.00	< 0.32
(Trans)-1,2-Dichloroethylene	1.5	< 0.10
1,3-Dichloropropylene (displistrans)	0.30	< 0.20
Tetrachloroethylene	2.3	< 0.03
Trichloroethylene	2.2	0.63
Unidentified Peaks	5	0

1 As 2,4-Dimethylphenol

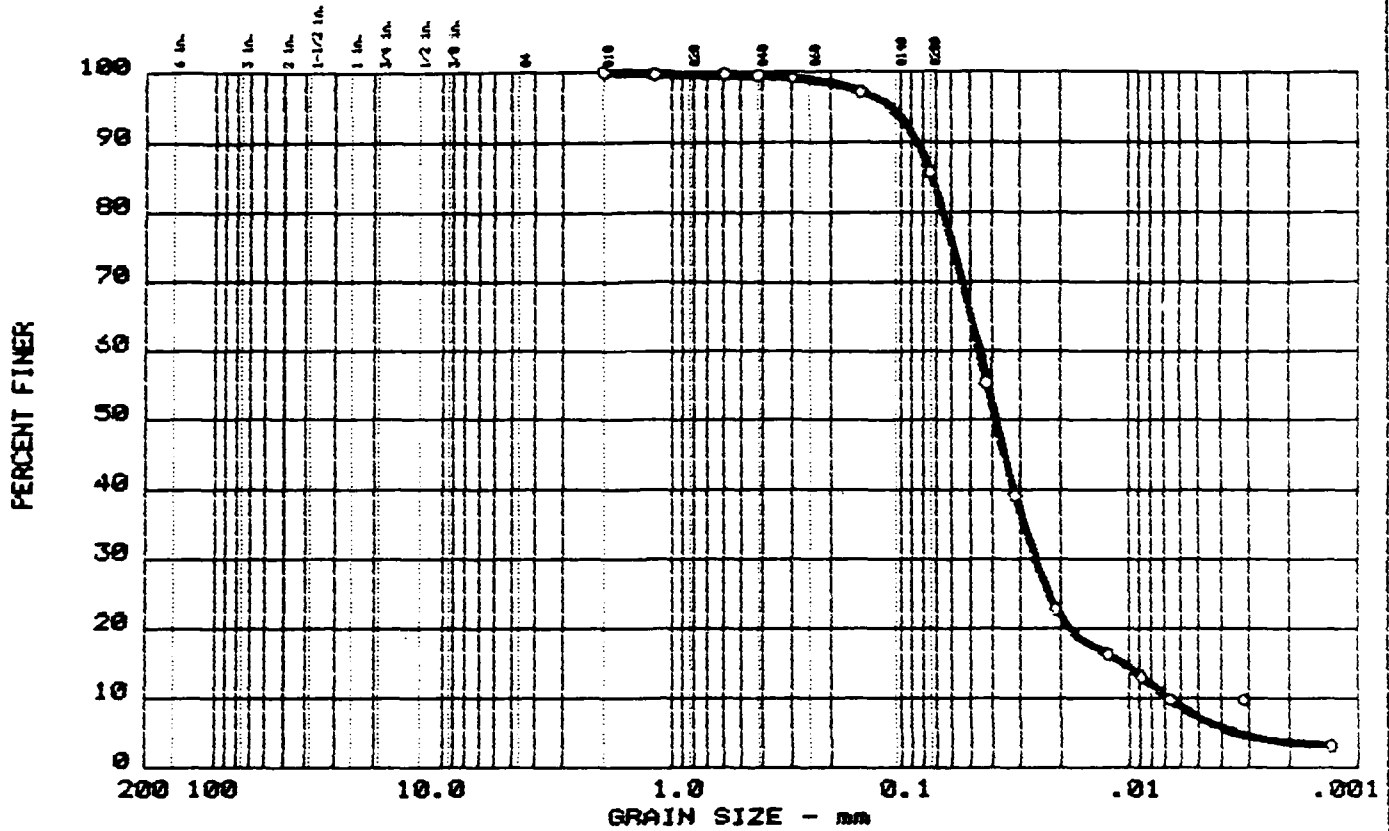
2 For a complete list of compounds analyzed see Table 4-2.  
Compounds listed in Table 4-2, but not found at the method  
601 or 602 detection limits are not reported here.

**WESTON**

**APPENDIX N**  
**GRAIN SIZE DISTRIBUTION CURVES AND**  
**PHYSICAL PROPERTIES DATA**

**1874B**

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
18	0.0	0.0	14.4	78.4	7.2

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
36	8	0.07	0.05	0.04	0.025	0.0106	0.0068	2.20	6.7

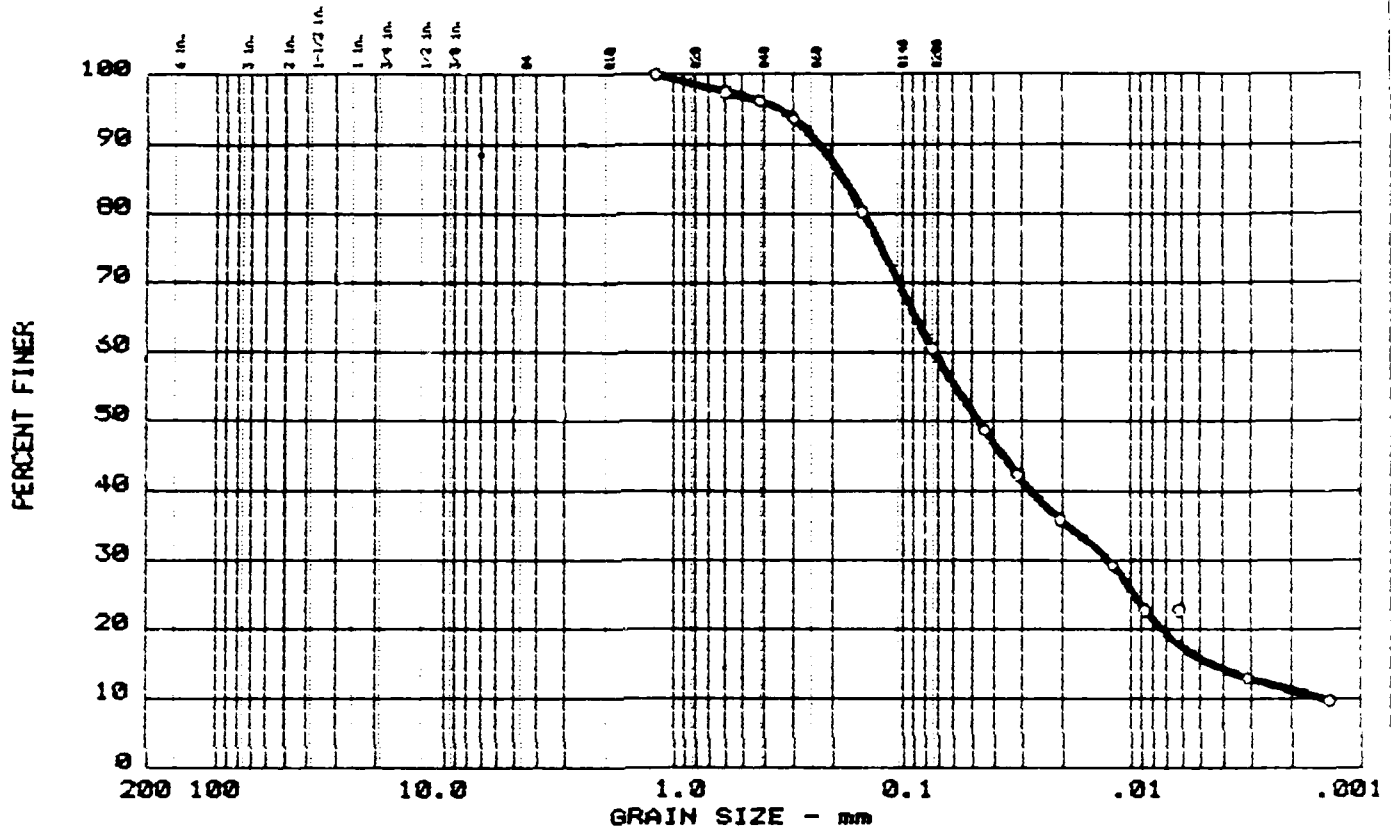
MATERIAL DESCRIPTION	USCS	AASHTO
	ML	

Project No.: 2186J030 Project: LUKE AFB Location: 03-04-B025  Date: 3-20-87	Remarks: Sample No. 1/2
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GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 1

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
19	0.0	0.0	39.5	44.8	15.7

LL	PI	D <sub>95</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
36	16	0.18	0.07	0.05	0.013	0.0045	0.0014	1.58	52.5

MATERIAL DESCRIPTION	USCS	AASHTO
	CL	

Project No.: 2186J030  
 Project: LUKE AFB  
 Location: 03-04-B060

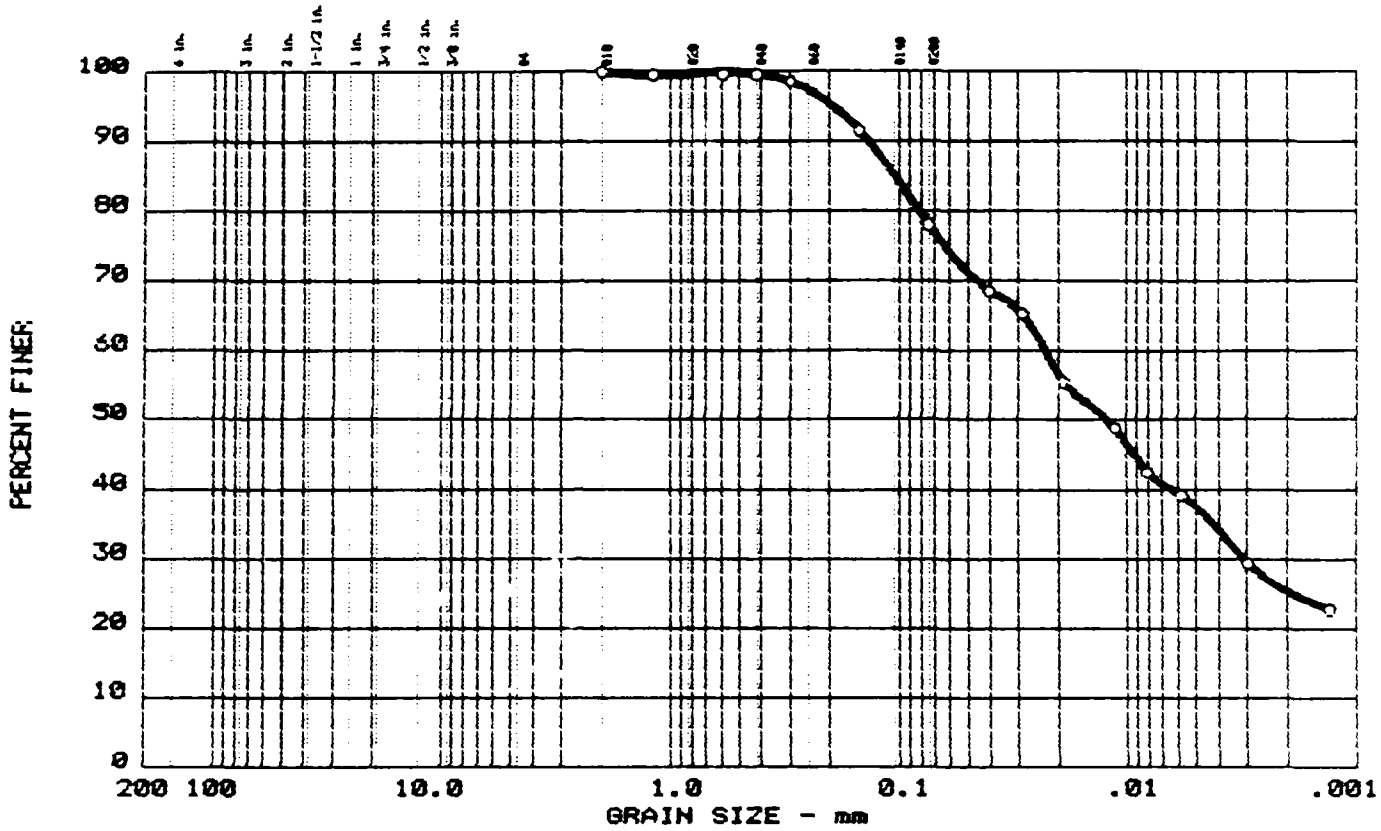
Remarks:  
 Sample No. 3

Date: 3-20-87

GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 2

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
○ 20	0.0	0.0	22.0	40.6	37.4

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
○ 53	32	0.10	0.02	0.01	0.003				

MATERIAL DESCRIPTION	USCS	AASHTO
○	CH	

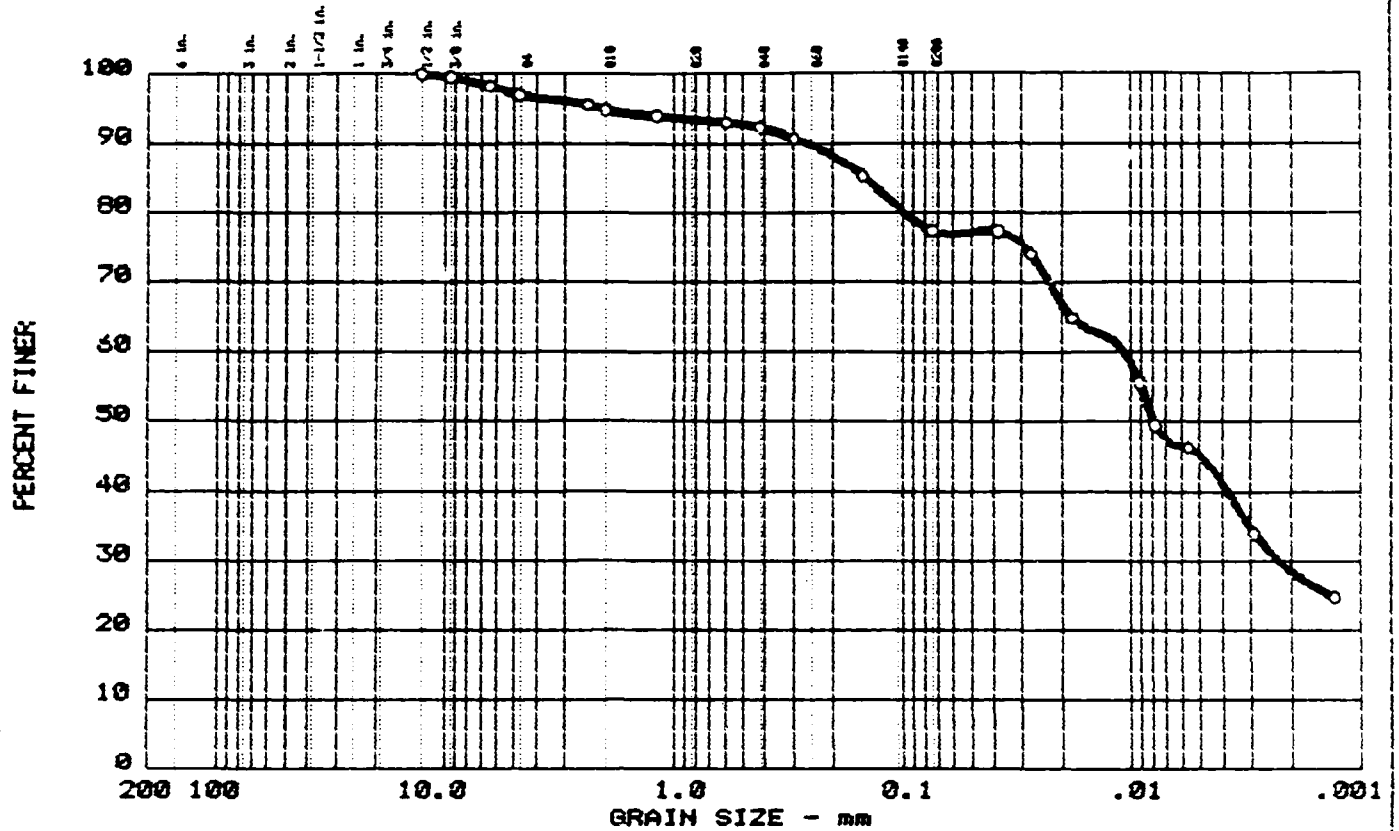
Project No.: 2186J030 Project: LUKE AFB ○ Location: 03-05-B035  Date: 3-20-67	Remarks: Sample No. 4
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GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 3



# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
0	0.0	3.0	19.6	32.0	45.3

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
52	22	0.14	0.01	0.01	0.002				

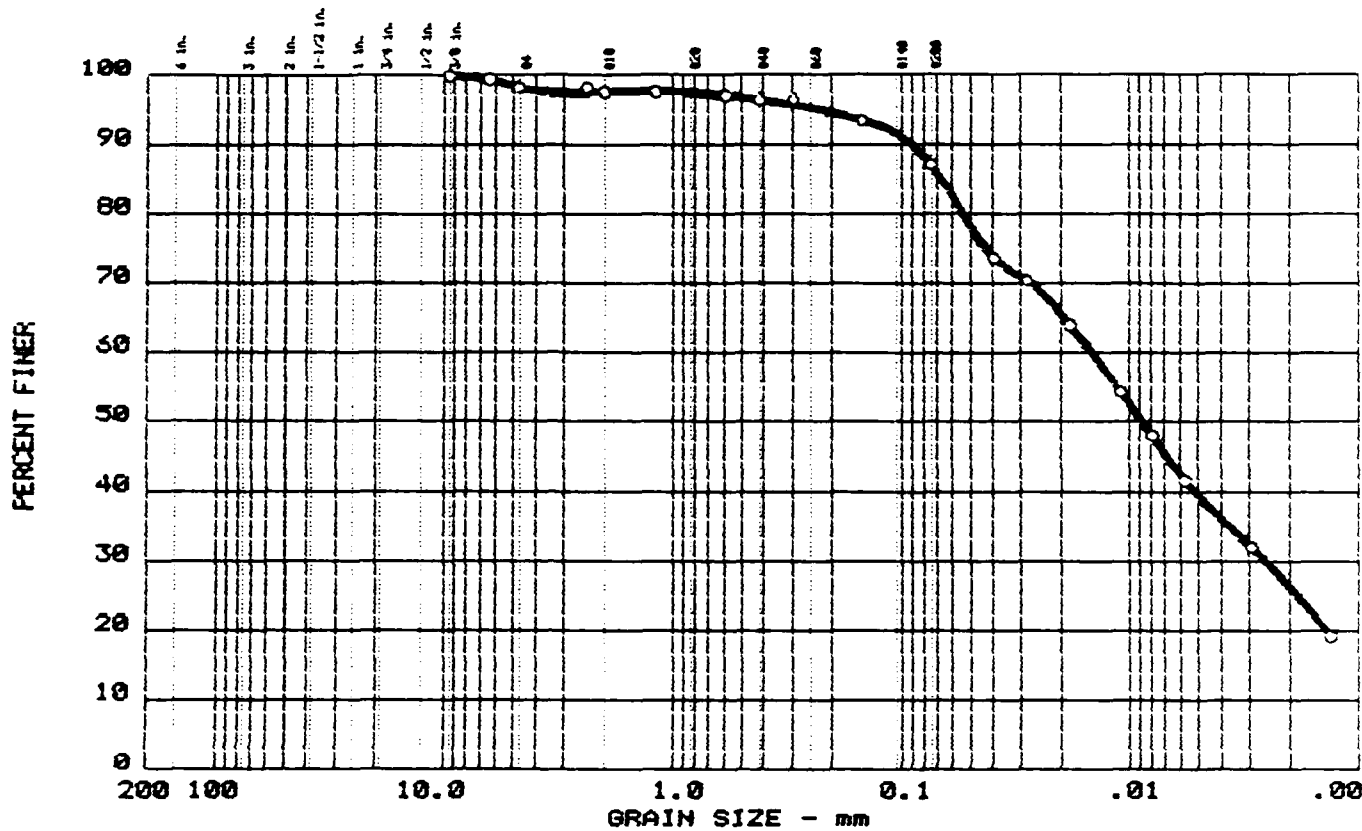
MATERIAL DESCRIPTION	USCS	AASHTO
	MH	

Project No.: 2186J030 Project: LUKE AFB Location: 03-05-8085  Date: 3-20-87	Remarks: Sample No. 6
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GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 4

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
9	0.0	1.8	11.2	47.7	39.3

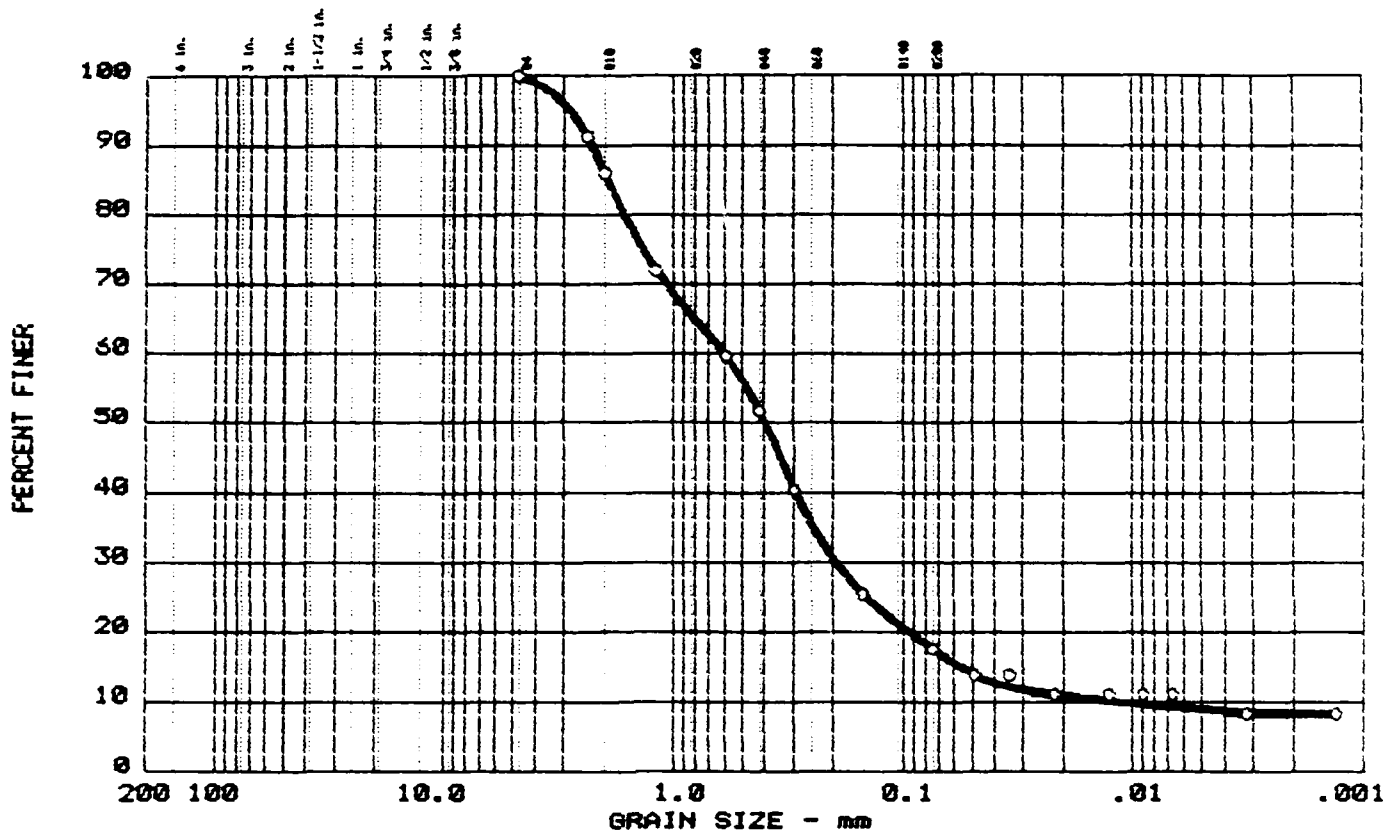
LL	PI	D <sub>95</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
44	18	0.07	0.01	0.01	0.003				

MATERIAL DESCRIPTION	USCS	AASHTO
	CL	

Project No.: 2186J030 Project: LUKE AFB Location: 04-05-3090  Date: 3-20-87	Remarks: Sample No. 7
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GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

# GRAIN SIZE DISTRIBUTION TEST REPORT



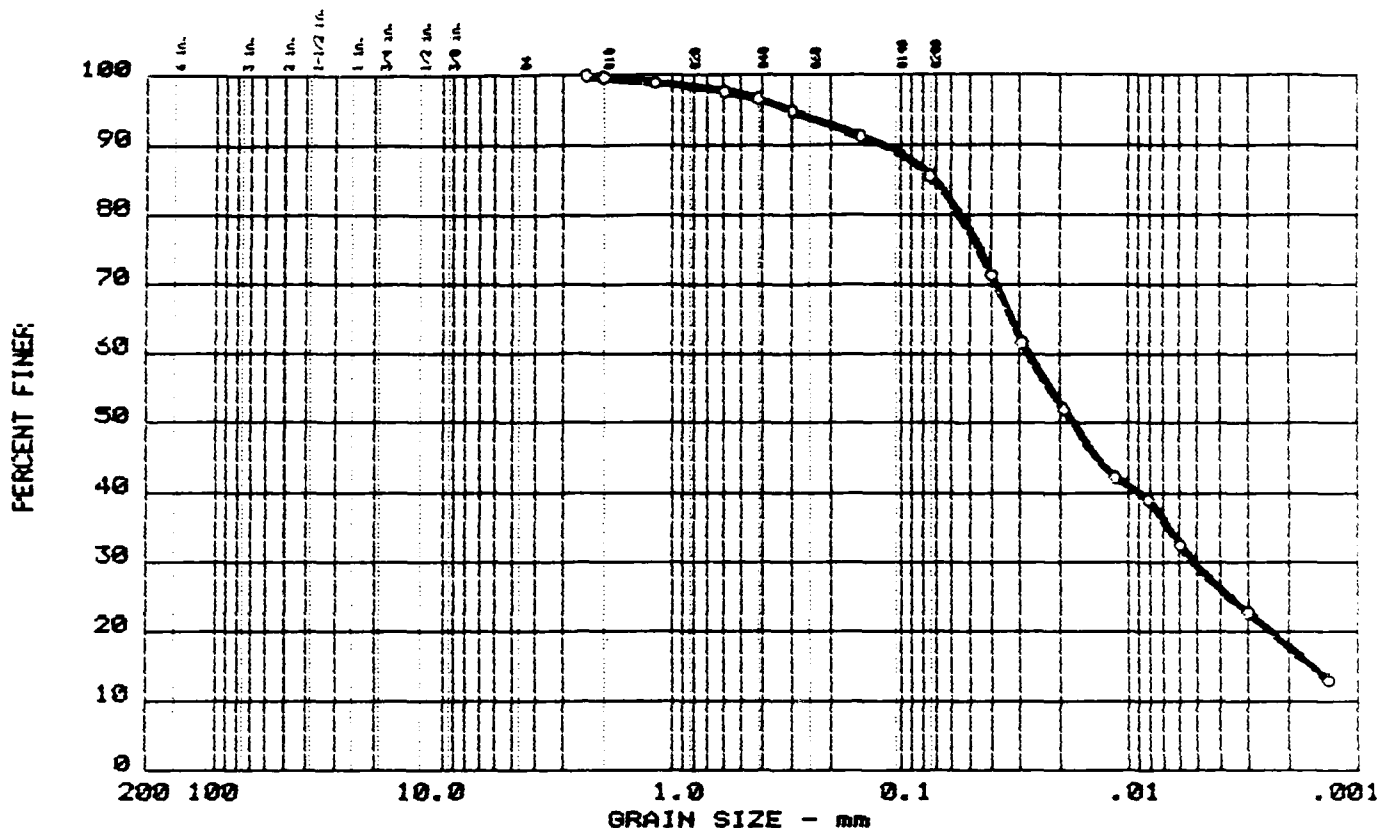
Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
10	0.0	0.0	82.5	8.6	8.9

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
	NP	1.93	0.60	0.40	0.194	0.0560	0.0097	6.50	61.2

MATERIAL DESCRIPTION	USCS	AASHTO
	SM	

<p>Project No.: 2186J030                  Project: LUKE AFB                  Location: 04-06-B025</p> <p>Date: 3-20-87</p> <p style="text-align: center;"><b>GRAIN SIZE DISTRIBUTION TEST REPORT</b>  <b>WESTERN TECHNOLOGIES INC.</b></p>	<p>Remarks:                  Sample No. 9</p> <p style="text-align: right;">Fig. No. 6</p>
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# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
○ 11	0.0	0.0	14.6	56.1	29.3

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
○ 44	18	0.07	0.03	0.02	0.005	0.0016			

MATERIAL DESCRIPTION	USCS	AASHTO
○	CL	

Project No.: 2186J030  
 Project: LUKE AFB  
 ○ Location: 04-06-8050

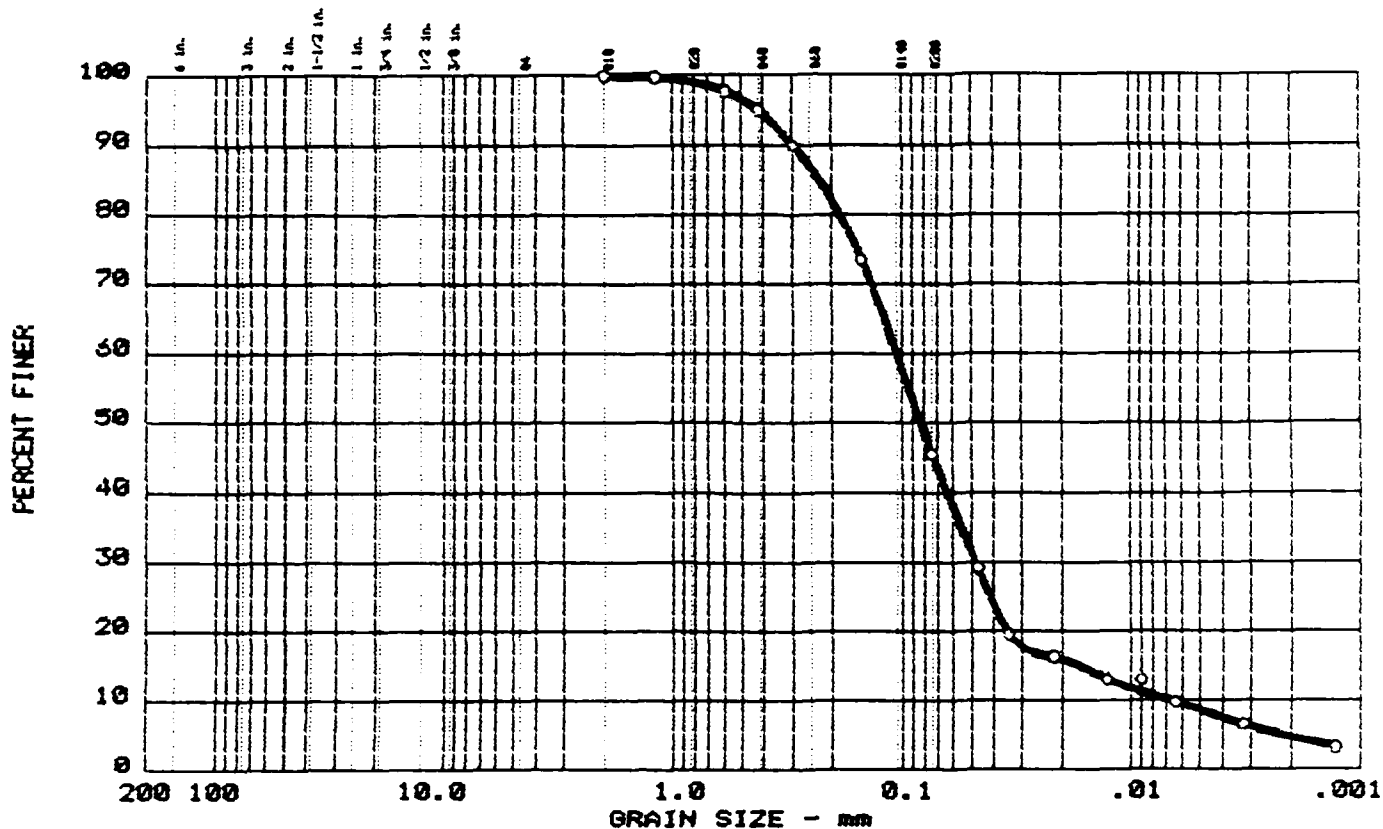
Date: 3-20-97

Remarks:  
 Sample No. 11

GRAIN SIZE DISTRIBUTION TEST REPORT  
 WESTERN TECHNOLOGIES INC.

Fig. No. 7

## GRAIN SIZE DISTRIBUTION TEST REPORT



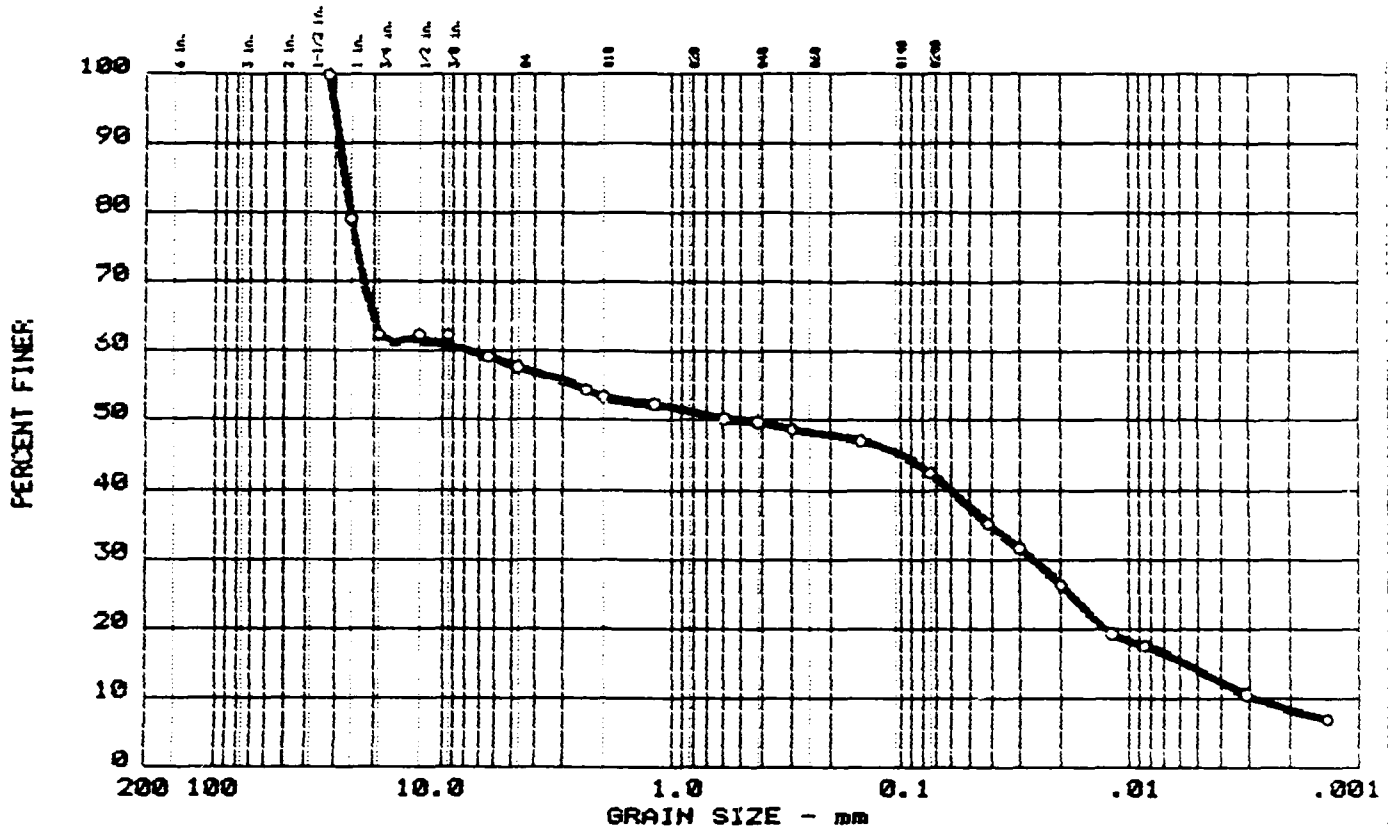
Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
12	0.0	0.0	54.5	36.9	8.6

LL	PI	D <sub>95</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
	NP	0.23	0.10	0.08	0.043	0.0170	0.0058	3.24	15.5

MATERIAL DESCRIPTION	USCS	AASHTO
	SM	

Project No.: 2186J030 Project: LUKE AFB Location: 04-06-8075	Remarks: Sample No. 12/13
Date: 3-20-67  <b>GRAIN SIZE DISTRIBUTION TEST REPORT</b> <b>WESTERN TECHNOLOGIES INC.</b>	Fig. No. 8

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
13	0.0	42.4	15.2	29.4	14.1

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
34	11	27.16	7.57	0.47	0.026	0.0056	0.0027	0.03	2754.2

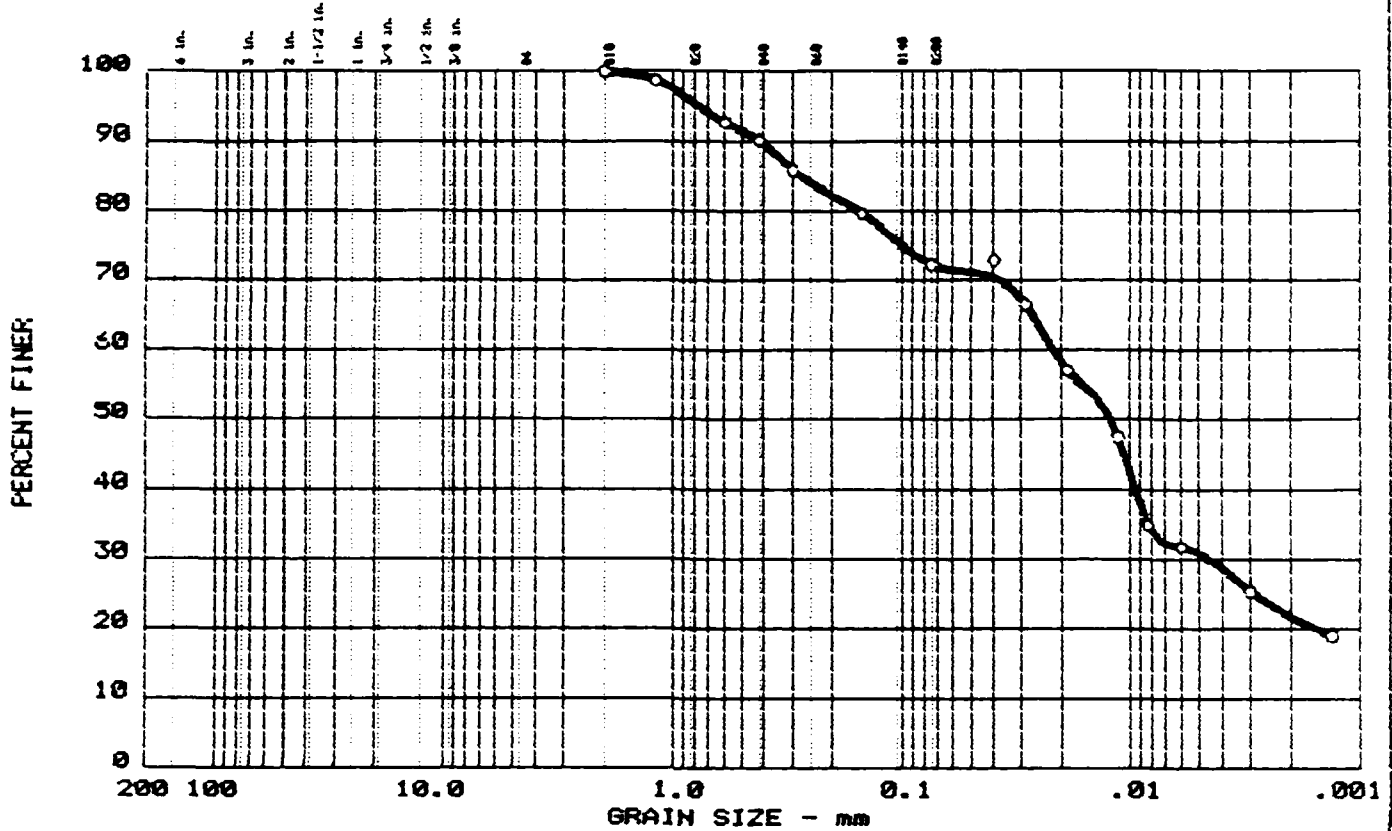
MATERIAL DESCRIPTION	USCS	AASHTO
	GC	

<p>Project No.: 2186J030                  Project: LUKE AFB                  Location: 04-06-B098</p> <p>Date: 3-20-07</p>	<p>Remarks:                  Sample No. 14</p>
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**GRAIN SIZE DISTRIBUTION TEST REPORT**  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 9

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
14	0.0	0.0	27.8	41.5	30.8

LL	PI	D <sub>95</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
36	16	0.25	0.02	0.01	0.005				

MATERIAL DESCRIPTION	USCS	AASHTO
0	CL	

Project No.: 2186J030  
 Project: LUKE AFB  
 Location: 06-01-B010

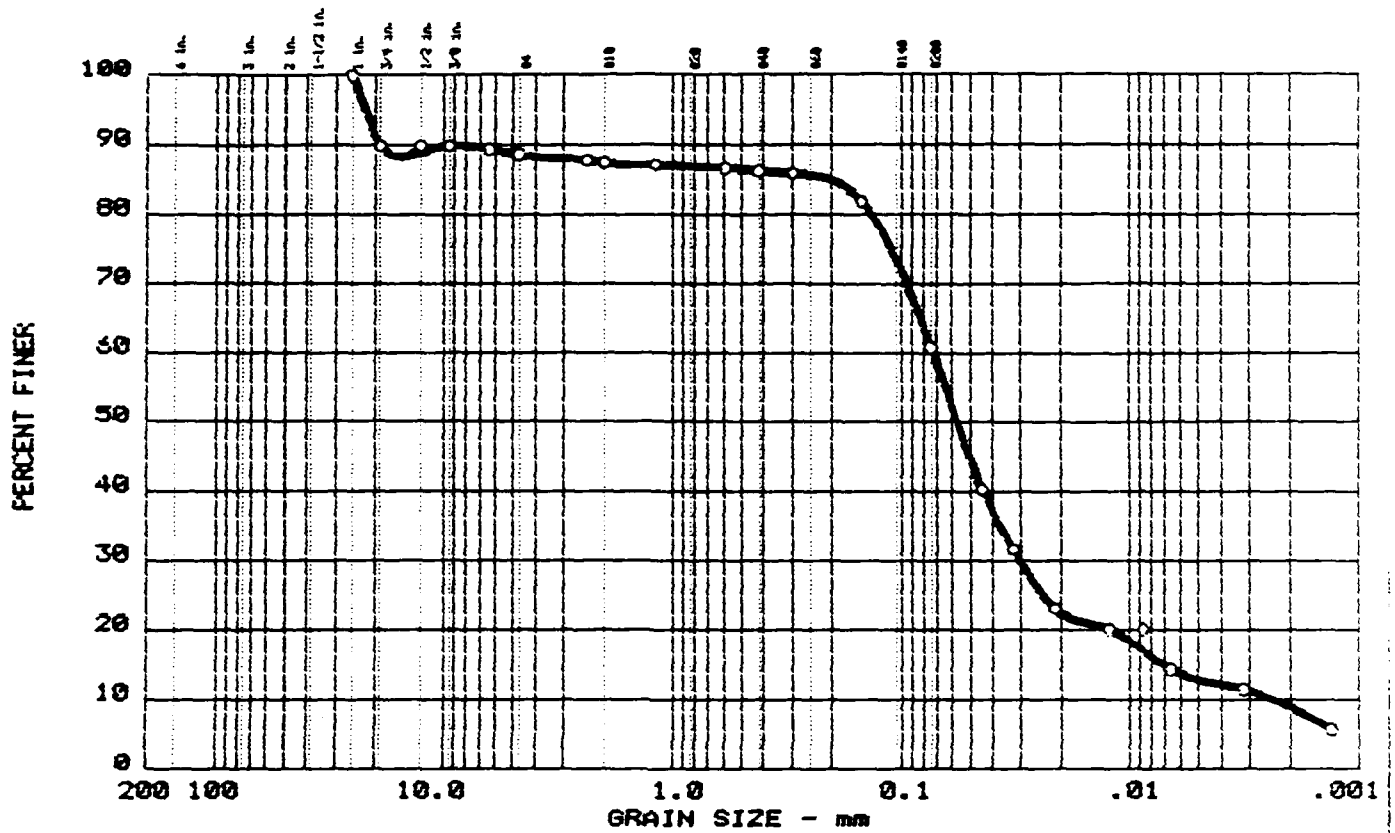
Date: 3-20-87

Remarks:  
 Sample No. 15

GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 10

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
15	0.0	11.5	27.7	48.1	12.9

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
36	NP	0.20	0.07	0.06	0.030	0.0071	0.0024	5.41	30.7

MATERIAL DESCRIPTION	USCS	AASHTO
	ML	

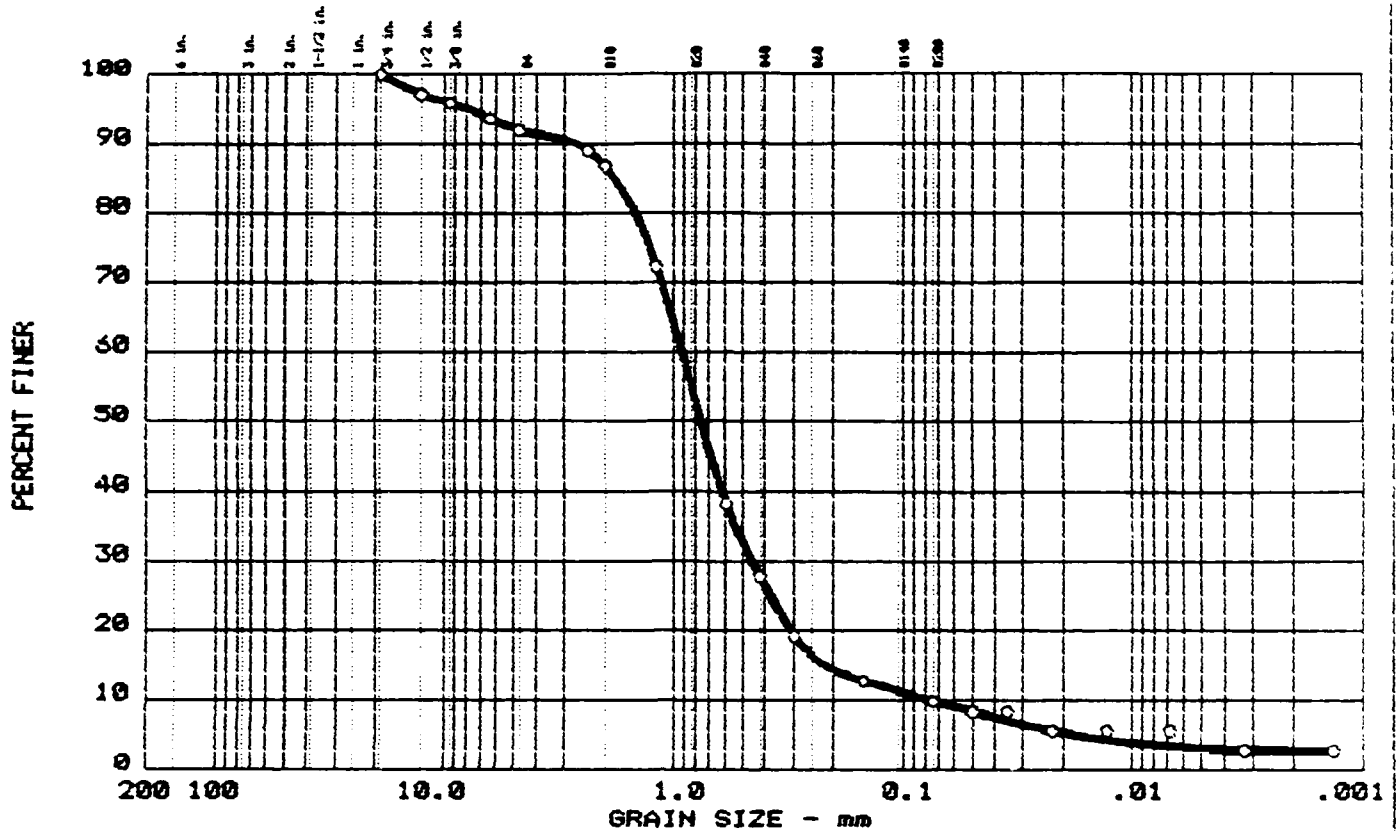
Project No.: 2186J030  
 Project: LUKE AFB  
 Location: 06-01-B100  
 Date: 3-20-87

Remarks:  
 Sample No. 16

**GRAIN SIZE DISTRIBUTION TEST REPORT**  
**WESTERN TECHNOLOGIES INC.**



## GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
16	0.0	9.1	82.0	6.9	3.1

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
	NP	1.82	0.92	0.76	0.454	0.2198	0.0745	3.00	12.4

MATERIAL DESCRIPTION	USCS	AASHTO
	SP-SM	

Project No.: 2186J030  
 Project: LUKE AFB  
 Location: 06-03-B025

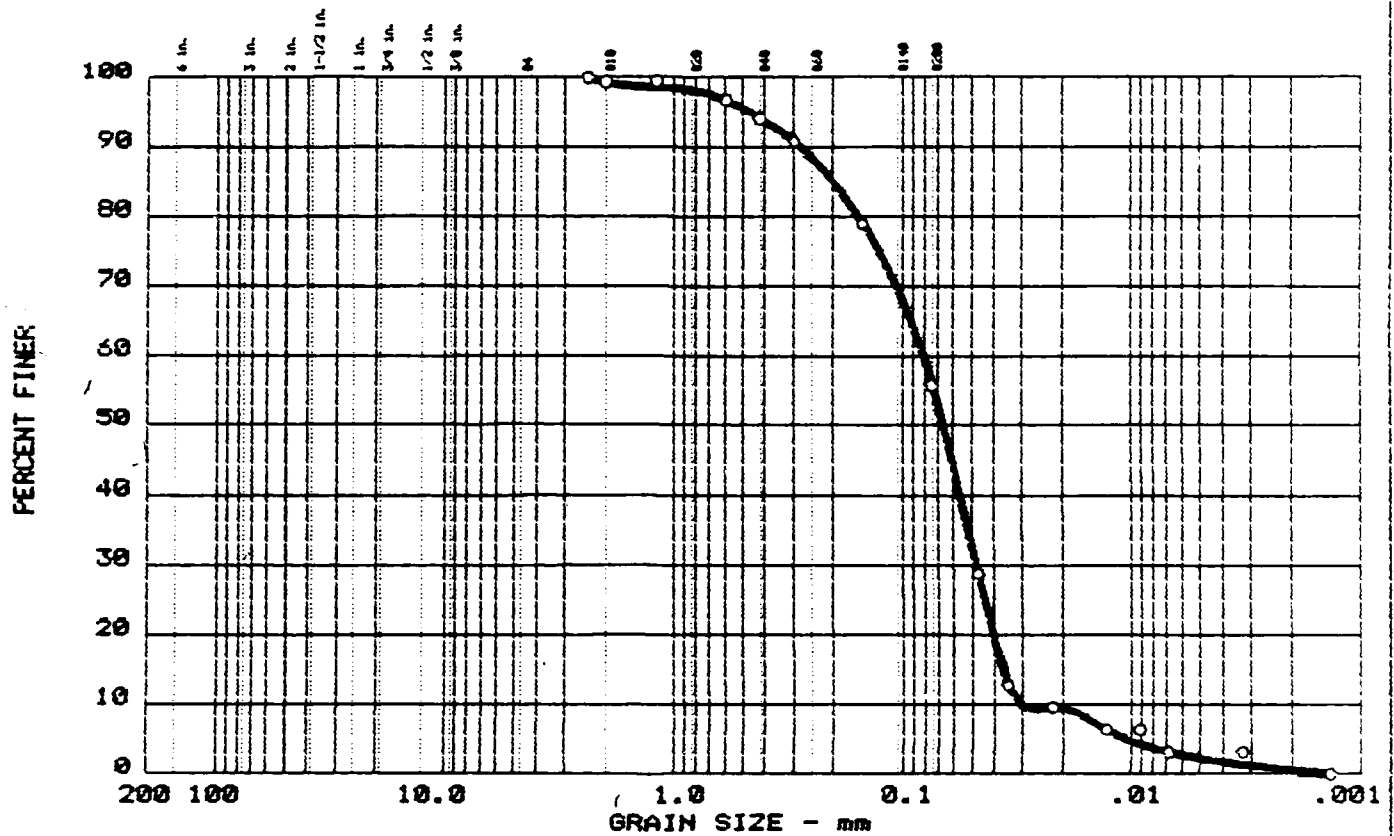
Remarks:  
 Sample No. 21

Date: 3-20-67

GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 12

# GRAIN SIZE DISTRIBUTION TEST REPORT



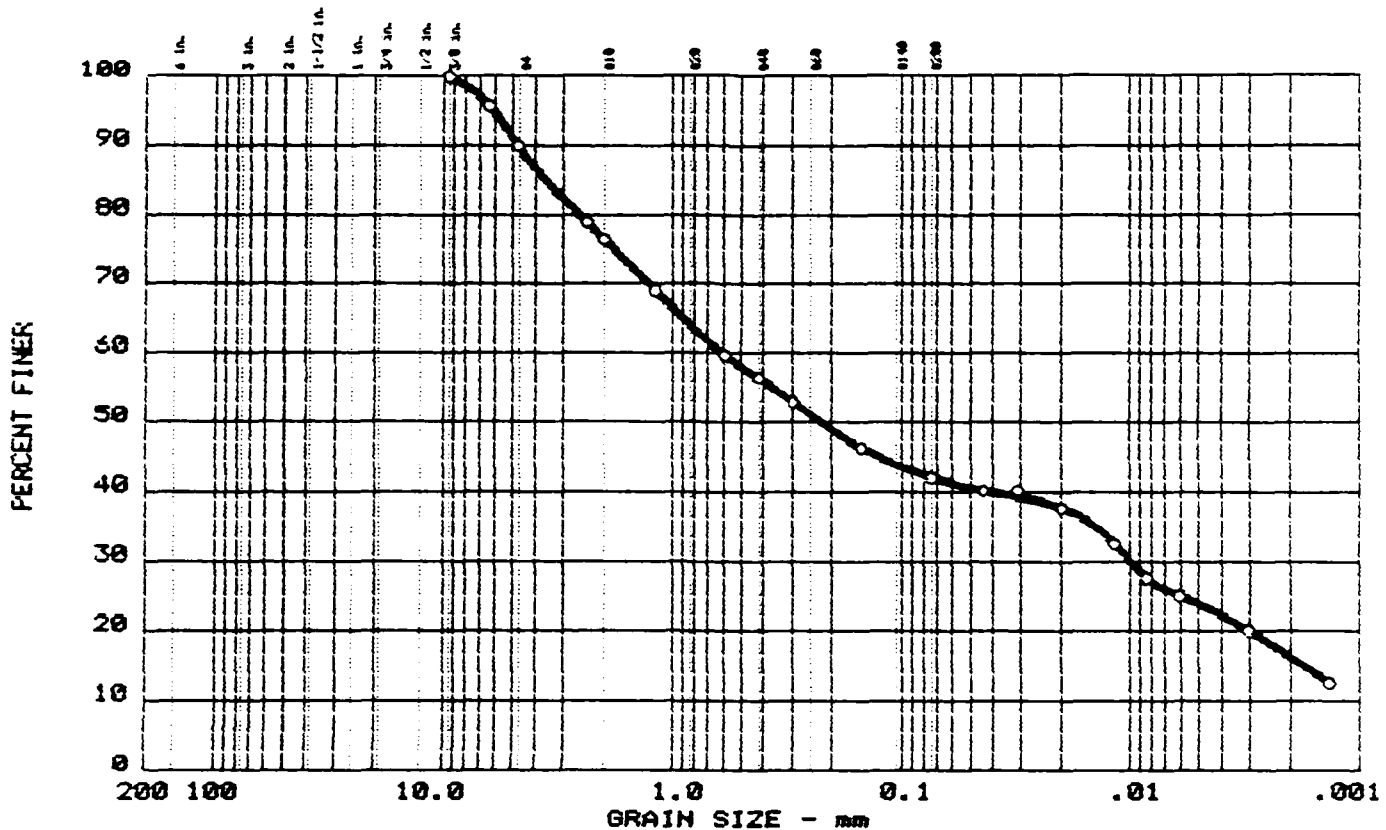
Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
17	0.0	0.0	44.2	53.5	2.3

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
	NP	0.20	0.08	0.07	0.043	0.0369	0.0307	0.92	2.3

MATERIAL DESCRIPTION	USCS	AASHTO
	ML	

Project No.: 2186J030 Project: LUKE AFB Location: 06-03-B035  Date: 3-20-87	Remarks: Sample No. 17
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# GRAIN SIZE DISTRIBUTION TEST REPORT



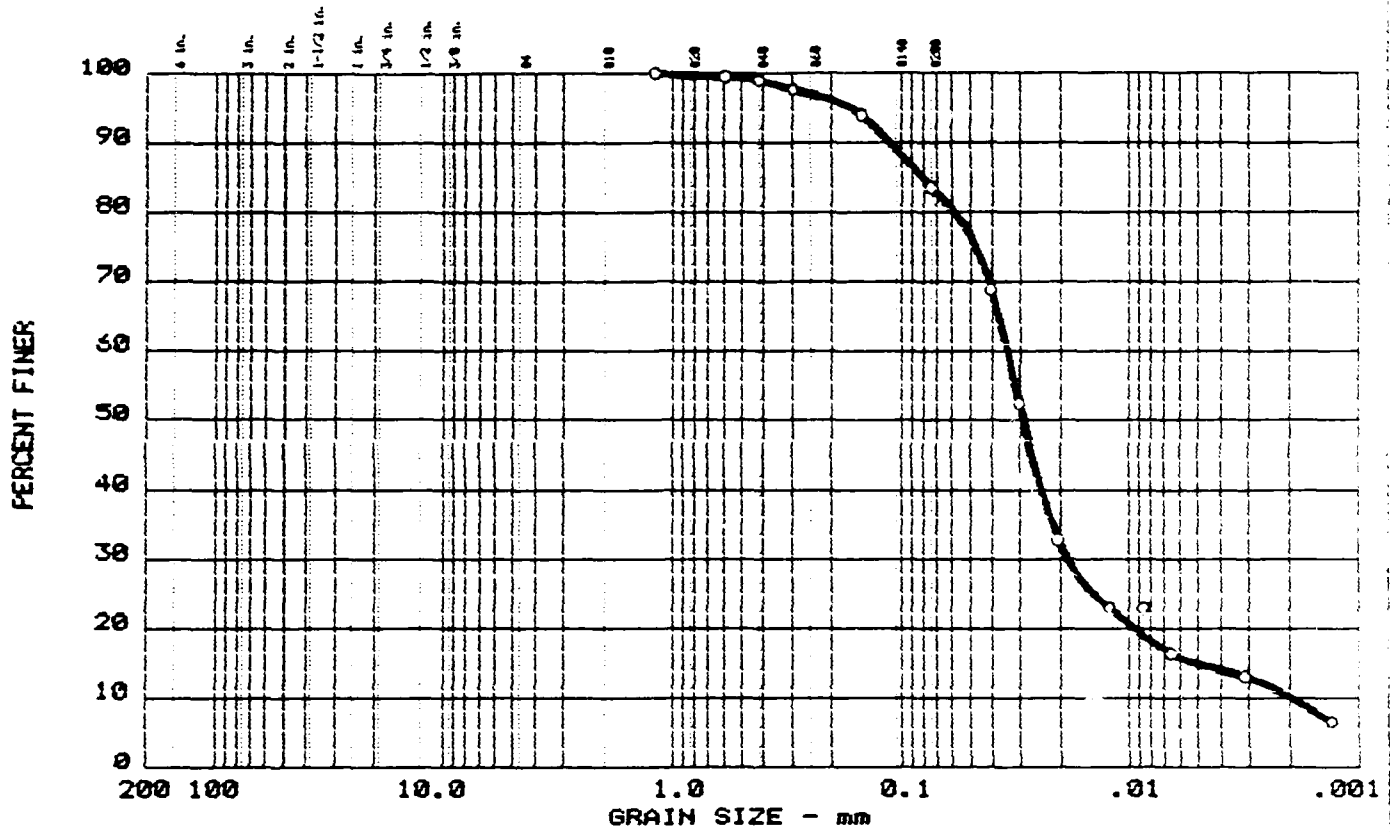
Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
19	0.0	10.1	47.9	19.2	23.9

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
63	34	3.59	0.50	0.22	0.010	0.0017			

MATERIAL DESCRIPTION	USCS	AASHTO
	SC	

<p>Project No.: 2186J030                  Project: LUKE AFB                  Location: 06-03-B075</p> <p>Date: 3-20-87</p> <p style="text-align: center;"><b>GRAIN SIZE DISTRIBUTION TEST REPORT</b>  <b>WESTERN TECHNOLOGIES INC.</b></p>	<p>Remarks:                  Sample No. 19</p> <p style="text-align: right;">Fig. No. 14</p>
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# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	%+3"	% GRAVEL	% SAND	% SILT	% CLAY
19	0.0	0.0	16.5	68.6	14.9

LL	PI	D85	D60	D50	D30	D15	D10	Cc	Cu
	MP	0.08	0.03	0.03	0.019	0.0051	0.0019	5.28	17.7

MATERIAL DESCRIPTION	USCS	AASHTO
	ML	

Project No.: 2186J030 Project: LUKE AFB Location: 06-03-8085  Date: 3-20-87	Remarks: Sample No. 20
---	---------------------------

GRAIN SIZE DISTRIBUTION TEST REPORT  
**WESTERN TECHNOLOGIES INC.**

Fig. No. 15

## PHYSICAL PROPERTIES

Project No.: 2186J030

Project: Luke AFB

Date: January 6, 1987

<u>LOCATION</u>	<u>SAMPLE NUMBER</u>	<u>ATTERBERG LIMITS</u>		<u>INSITU CONDITIONS</u>		<u>ASSUMED SPECIFIC GRAVITY</u>	<u>DEGREE OF SATURATION PERCENTAGE</u>
		<u>LL</u>	<u>PI</u>	<u>DENSITY pcf</u>	<u>MOISTURE CONTENT PERCENT</u>		
03-04-B025	1/2	36	8	92.1	12.5	2.70	41.1
03-04-B060	3	36	16	81.6	21.6	2.70	55.1
03-05-B035	4	56	32	94.8	27.7	2.72	97.2
03-05-B085	6	52	22	92.6	29.0	2.72	96.5
04-05-B090	7	44	18	96.0	26.2	2.72	94.5
04-06-B025	9	--	NP	103.7	16.1	2.65	69.6
04-06-B050	11	44	18	88.7	24.2	2.72	73.2
04-06-B075	12/13	--	NP	92.3	8.9	2.68	29.1
04-06-B098	14	34	11	113.2	14.1	2.65	79.3
06-01-B010	15	36	16	102.3	14.1	2.70	59.5
06-01-B100	16	--	NP	111.5	10.2	2.65	54.7
06-03-B025	21	--	NP	102.9	4.3	2.65	18.2
06-03-B035	17	--	NP	Disturbed	7.8	2.65	--
06-03-B075	19	63	34	95.0	17.0	2.65	59.9
06-03-B085	20	--	NP	98.2	13.7	2.68	52.3

NOTE: NP = Nonplastic  
 -- = Not tested or unable to calculate



IAS LABORATORIES

2543 EAST UNIVERSITY DRIVE  
 SUITE 113  
 PHOENIX, ARIZONA  
 (602) 273-7248

SOIL ANALYSIS REPORT

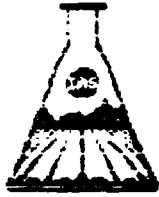
ORDER : WESTERN TECH. LOGS, INC.  
 SUBMITTED BY : MIKE JAHN  
 SEND REPORT TO : MIKE JAHN  
 REPORT NUMBER : 631922 P-457 # : 1 DATE : 11/24/86  
 CROP : PUMPKIN

SENDER SAMPLE NUMBER	LAB #	CALCIUM	MAGNESIUM	SODIUM	POTASH	IRON	ZINC	MANGANESE	COPPER	SALINITY	NITRATE	PHOSPHORUS
		(CA) PPM	(MG) PPM	(NA) PPM	(K) PPM	(FE) PPM	(ZN) PPM	(MN) PPM	(CU) PPM	(EC) (K) MMS/CM	(NO3-N) PPM	(P) PPM
1	209	1200	270									
2	209	1200	300									
4	210	500	320									
5	211	5100	1500									
7	212	3200	1250									
9	213	500	275									
11	214	2100	1250									
12/13	215	1600	400									

VL = VERY LOW      L = LOW      M = MEDIUM      H = HIGH      VH = VERY HIGH

SENDER SAMPLE NUMBER	CM	CATION	COMPLETED	ORGANIC	SULFUR	BORON	FREE	GYPSUM	PARTICLE SIZE ANALYSIS			
		EXCHANGE CAPACITY MEG/100G	% SODIUM CSP	MATTER %	(S) %	(B) PPM	LIME LEVEL	REQUIREMENT TONS/ACRE	% SAND	% SILT	% CLAY	SOIL TEXTURE
1	2.7	20		1.4								
2	2.5	15		1.4								
4	2.1	20		1.5								
5	2.2	11		1.30								
7	2.1	30		1.26								
9	2.2	9.1		1.13								
11	2.3	23		1.28								
12/13	2.2	11		1.10								





IAS LABORATORIES

2643 EAST UNIVERSITY DRIVE  
 SUITE 113  
 PHOENIX, ARIZONA  
 (602) 273-7248

SOIL ANALYSIS REPORT

GROWER : WESTERN TECHNOLOGIES  
 SUBMITTED BY : MIKE JAHN  
 SEND REPORT TO : MIKE JAHN  
 REPORT NUMBER : 631906 PAGE # : 3 DATE : 11/24/86  
 TROP : -----

SENDER SAMPLE NUMBER	LAB #	CALCIUM (CA) PPM	MAGNESIUM (MG) PPM	SODIUM (NA) PPM	POTASH (K) PPM	IRON (FE) PPM	ZINC (ZN) PPM	MANGANESE (MN) PPM	COPPER (CU) PPM	SALINITY (EC 1:1) MMHOS/CM	NITRATE NITROGEN (NO3-N) PPM	PHOSPHORUS (P-CARB - SOLUBLE P) PPM
14	216	4200 VH	560 VH									
15	217	5600 VH	740 VH									
16	218	6200 VH	1140 VH									
17	219	2100 VH	370 VH									
18	220	6100 VH	840 VH									
19	221	3650 VH	640 VH									
21	222	1600 VH	470 VH									

VH = VERY HIGH    H = HIGH    \* = MEDIUM    L = LOW    VL = VERY LOW

SENDER SAMPLE NUMBER	CATION EXCHANGE CAPACITY MEQ/100G	COMPLETED % SODIUM (ESP)	ORGANIC MATTER %	SULFUR (S04-S) PPM	BORON (B) PPM	FREE LIME LEVEL	SYSLIM REQUIREMENT TONS/ACRE	PARTICLE SIZE ANALYSIS				
								% SAND	% SILT	% CLAY	SOIL TEXTURE	
14	8.4	12	1.4									
15	8.2	16	1.6									
16	8.4	24	1.7									
17	8.6	25	1.3									
19	8.8	23	1.5									
18	9.7	17	1.3									
21	9.2	18	1.5									



**WESTON**

**APPENDIX 0**

**SOIL-GAS SAMPLING RESULTS - TRC REPORT**

**1874B**

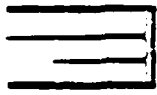


CONDENSED DATA

CONTAMINANT		TCA		TCE		PCE	
sample	depth	date	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration
20-G005	5'	10/7	0.002	0.4	0.01		
21-G004	4'	10/7	0.0008	0.003	0.0006		
22-G005	5'	10/7	0.0006	0.009	0.0006		
23-G005	5'	10/7	0.002	0.0002	0.0004		
24-G004	4'	10/7	0.001	<0.000008	0.0004		
25-G005	5'	10/7	0.0006	0.0002	0.0002		
26-G005	5'	10/7	0.02	0.4	0.04		
27-G005	5'	10/7	0.2	2	0.04		
28-G005	5'	10/7	0.08	2	0.08		
29-G005	5'	10/7	0.008	1	0.04		
30-G005	5'	10/7	0.002	0.05	0.003		
31-G003	3.5'	10/9	0.02	0.4	0.02		
32-G005	5'	10/9	0.002	0.05	0.003		
33-G004	4'	10/9	0.002	0.06	0.004		
34-G005	5'	10/9	0.004	0.4	0.02		
35-G005	5'	10/9	0.001	0.06	0.004		
36-G005	5'	10/9	0.003	0.3	0.01		
37-G005	5'	10/9	0.001	0.04	0.001		

Notations: RF response factor  
 I interference with adjacent peaks  
 NA not analyzed

Summarized by: M. Favero  
 Checked by: C. Scott  
 Proofed by: L. Langlander



CONDENSED DATA

CONTAMINANT		Benzene		Toluene		Xylene		Total Hydrocarbons	
sample	depth	date	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration
20-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.2
21-G004	4'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.3
22-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.3
23-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.3
24-G004	4'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.3
25-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.4
26-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.4
27-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.8
28-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.8
29-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.8
30-G005	5'	10/7	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.2
031-G003, 5'	3, 5'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.4
032-G005	5'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.2
033-G005	4'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.2
034-G005	5'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.4
035-G005	5'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.2
036-G005	5'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	0.4
037-G005	5'	10/9	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.2

Notations: RF response factor  
 I interference with adjacent peaks  
 NA not analyzed

Summarized by: M. Favero  
 Checked by: C. Scifia  
 Proofed by: L. Laplander

CONDENSED DATA

CONTAMINANT		TCA		TCE		PCE	
sample	depth	date	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration
SG-01	3'	10/7	0.0008	0.0002	0.2		
SG-02	3'	10/7	0.0006	0.0006	0.06		
SG-03	3'	10/8	0.0007	0.0001	0.02		
SG-04	4'	10/8	0.001	0.0004	0.03		
SG-05	3'	10/8	0.0007	0.0005	0.06		
SG-06	5'	10/8	0.0007	0.0008	0.2		
SG-07	4'	10/8	0.0006	0.02	0.4		
SG-08	4'	10/8	0.0007	0.0002	0.006		
SG-09	3'	10/8	0.0008	<0.0001	0.007		
SG-10	3.5'	10/8	0.0008	<0.0001	0.005		
SG-11	3'	10/8	0.0006	0.0002	0.01		
SG-12	2'	10/8	0.001	0.0006	0.03		
SG-13	4'	10/8	0.001	0.0005	0.002		
SG-14	4'	10/8	0.0007	0.0001	0.006		
SG-15	2'	10/8	0.0008	<0.0001	0.0005		
SG-16	4'	10/8	0.0008	<0.0001	0.006		
SG-17	3.5'	10/8	0.0009	0.0003	0.1		
SG-18	3'	10/8	0.0006	0.03	0.1		
SG-19	4'	10/8	0.0006	0.0002	0.002		
SG-20	3'	10/8	0.0008	0.0006	0.02		

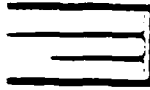
Notations:

- RF response factor
- I interference with adjacent peaks
- NA not analyzed

Summarized by: M. Favero

Checked by: C. Scola

Proofed by: E. Laplander



CONDENSED DATA

CONTAMINANT		CONDENSED DATA				
sample	depth	date	Benzene mean ug/l concentration	Toluene mean ug/l concentration	Xylene mean ug/l concentration	Total Hydrocarbons mean ug/l concentration
SG-01	3'	10/7	<0.2	<0.2	<0.1	1
SG-02	3'	10/7	<0.2	<0.2	<0.1	0.2
SG-03	3'	10/8	<0.2	<0.2	<0.1	0.4
SG-04	4'	10/8	<0.2	<0.2	<0.1	0.3
SG-05	3'	10/8	<0.2	<0.2	<0.1	0.8
SG-06	5'	10/8	<0.2	<0.2	<0.1	0.8
SG-07	4'	10/8	<0.2	<0.2	<0.1	49
SG-08	4'	10/8	<0.2	<0.2	<0.1	0.4
SG-09	3'	10/8	<0.2	<0.2	<0.1	0.3
SG-10	3.5'	10/8	<0.2	<0.2	<0.1	<0.3
SG-11	3'	10/8	<0.2	<0.2	<0.1	0.3
SG-12	2'	10/8	<0.2	<0.2	<0.1	0.3
SG-13	4'	10/8	<0.2	<0.2	<0.1	<0.2
SG-14	4'	10/8	<0.2	<0.2	<0.1	0.4
SG-15	3'	10/8	<0.2	<0.2	<0.1	0.2
SG-16	4'	10/8	<0.2	<0.2	<0.1	0.4
SG-17	3.5'	10/8	<0.2	<0.2	<0.1	0.3
SG-18	3'	10/8	<0.2	<0.2	<0.1	1
SG-19	4'	10/8	<0.2	<0.2	<0.1	0.3
SG-20	3'	10/8	<0.2	<0.2	<0.1	0.3

Notations:

- RF response factor
- 1 interference with adjacent peaks
- NA not analyzed

Summarized by: M. Favero

Checked by: C. Scoba

Proofed by: E. Laplander

CONTAMINANT		CONDENSED DATA					
sample	date	TCA mean ug/l concentration	TCE mean ug/l concentration	PCE mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	
03-001-G003	9/23	0.2	<0.00009	0.002	0.002		
03-002-G009	9/23	0.008	0.001	0.001	0.001		
03-003-G005	9/23	0.2	<0.00009	0.001	0.001		
03-004-G005	9/23	0.03	0.002	0.002	0.002		
03-005-G005	9/23	0.01	<0.00009	0.001	0.001		
03-006-G005	9/23	0.02	0.001	0.001	0.001		
03-007-G005	9/23	0.008	0.001	0.003	0.003		
03-008-G005	9/23	0.03	0.0005	0.0008	0.0008		
03-009-G005	9/23	0.02	<0.00009	0.002	0.002		
03-010-G003	9/24	0.002	0.002	0.0004	0.0004		
03-011-G005	9/24	0.004	0.004	0.0004	0.0004		
03-012-G003	9/24	0.01	0.0008	0.002	0.002		
03-013-G004,5	9/24	0.0007	0.002	0.0006	0.0006		
03-014-G003	9/24	0.0006	0.01	0.001	0.001		
03-015-G005	9/24	0.0005	0.002	0.003	0.003		
03-016-G003,5	9/24	0.001	0.004	0.004	0.004		
03-017-G005	9/24	0.0006	0.006	0.002	0.002		
03-018-G005	9/24	0.0006	0.03	0.006	0.006		
03-019-G003	9/24	0.0004	0.0008	0.0003	0.0003		
03-020-G005	10/9	0.0006	0.005	0.002	0.002		
03-021-G005	10/9	0.0008	<0.00008	0.0003	0.0003		

Notations: RF response factor  
 I interference with adjacent peaks  
 NA not analyzed

Summarized by: M. Favero  
 Checked by: C. Scala

CONDENSED DATA

CONTAMINANT		CONDENSED DATA					Total Hydrocarbons
Sample	date	Benzene mean ug/l concentration	Toluene mean ug/l concentration	Xylene mean ug/l concentration		mean ug/l concentration	
03-001-G003	9/23	<0.09	<0.1	<0.1		2	
03-002-G009	9/23	<0.09	<0.1	<0.1		0.7	
03-003-G005	9/23	<0.09	<0.1	<0.1		0.5	
03-004-G005	9/23	<0.09	<0.1	<0.1		0.6	
03-005-G005	9/23	<0.09	<0.1	<0.1		0.7	
03-006-G005	9/23	<0.09	<0.1	<0.1		0.4	
03-007-G005	9/23	<0.09	<0.1	<0.1		2	
03-008-G005	9/23	<0.09	<0.1	<0.1		0.6	
03-009-G005	9/23	<0.09	<0.1	<0.1		1	
03-010-G003	9/24	N/A	N/A	N/A		N/A	
03-011-G005	9/24	N/A	N/A	N/A		N/A	
03-012-G005	9/24	N/A	N/A	N/A		N/A	
03-013-G004.5	9/24	N/A	N/A	N/A		N/A	
03-014-G003	9/24	N/A	N/A	N/A		N/A	
03-015-G005	9/24	N/A	N/A	N/A		N/A	
03-016-G003.5	9/24	N/A	N/A	N/A		N/A	
03-017-G005	9/24	N/A	N/A	N/A		N/A	
03-018-G005	9/24	N/A	N/A	N/A		N/A	
03-019-G003	9/24	N/A	N/A	N/A		N/A	
03-020-G005	10/9	<0.2	<0.2	<0.1		0.3	
03-021-G005	10/9	<0.2	<0.2	<0.1		0.2	

Notations:

RF response factor

I interference with adjacent peaks

NA not analyzed

Summarized by: M. Favero

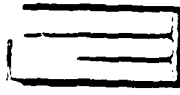
Checked by: C. Scola

Proofed by: E. Caplander

lab Weston & Assoc./Luke AFB

Site #3

TRACER RESEARCH CORPORATION



CONDENSED DATA

CONTAMINANT	date	TCA mean ug/l concentration	TCE mean ug/l concentration	PCE mean ug/l concentration	mean ug/l concentration
03-022-C004	10/9	0.0006	0.006	0.004	
03-023-C004	10/9	0.0008	0.002	0.003	

Notations: RF response factor  
I interference with adjacent peaks  
NA not analyzed

Summarized by: M. Favero  
Checked by: C. G. G. G.  
Project No.: V. V. V.

CONDENSED DATA

CONTAINER VIAL sample	date	Benzene		Toluene		Xylenes		Total Hydrocarbons	
		mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration		
03-022-0004	10/9	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	0.2	
03-023-0004	10/9	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	0.2	

Notations: RF response factor  
I interference with adjacent peaks  
NA not analyzed

Summarized by: M. Favero  
Checked by: C. Stolla  
Proofed by: J. T. G. Gable



CONDENSED DATA

CONTAMINANT	TCA		TCE		PCE	
	date	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration	mean ug/l concentration
001-G003,5	9/25	0.003	0.05	0.007		
002-G004,5	9/25	0.002	0.1	0.03		
003-G005	9/25	1	1	0.02		
004-G005	9/25	0.06	0.4	0.04		
005-G005	9/25	0.1	0.6	0.06		
006-G005	9/25	0.8	2	0.8		
007-G005	9/25	0.6	2	0.7		
008-G003,5	9/25	0.6	0.6	0.1		
009-G005	9/25	0.06	0.8	0.06		
010-G005	9/25	0.002	0.4	0.01		
011-G005	9/25	0.2	0.8	0.2		
012-G005	9/25	0.03	1	0.4		
013-G005	9/25	0.04	1.7	0.3		
014-G005	9/25	0.1	0.4	0.3		
015-G005	9/25	0.08	8	0.2		
016-G005	9/26	0.002	0.8	0.01		
017-G004	9/26	0.0009	0.3	0.006		
018-G005	9/26	0.01	2	0.03		
019-G003	9/26	0.006	0.8	0.02		
020-G005	9/26	0.002	0.05	0.01		

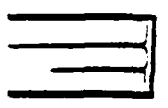
Notations:

- RF response factor
- 1 interference with adjacent peaks
- NA not analyzed

Summarized by: M. Favero

Checked by: C. Scolda

Printed by: T. L. ...



Int: Weston & Assoc./Luke AFB

Site #4

Date: \_\_\_\_\_ Page: \_\_\_\_\_

CONDENSED DATA

Sample	date	Benzene		Toluene		Xylene		Total Hydrocarbons	
		mean ug/l concentration	ug/l concentration	mean ug/l concentration	ug/l concentration	mean ug/l concentration	ug/l concentration	mean ug/l concentration	ug/l concentration
001-G003.5	9/25	<0.1	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	4
002-G004.5	9/25	<0.1	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	3
003-G005	9/25	<0.1	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	2
004-G005	9/25	<0.1	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	2
005-G005	9/25	<0.7	92	92	49	49	49	49	320
006-G005	9/25	550	560	560	<8	<8	<8	<8	2400
007-G005	9/25	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	21
008-G003.5	9/25	<0.6	<0.6	<0.6	<0.3	<0.3	<0.3	<0.3	6
009-G005	9/25	<0.6	<0.6	<0.6	<0.3	<0.3	<0.3	<0.3	4
010-G005	9/25	<0.6	<0.6	<0.6	<0.3	<0.3	<0.3	<0.3	5
011-G005	9/25	<0.6	<0.6	<0.6	<0.3	<0.3	<0.3	<0.3	3
012-G005	9/25	<0.6	<0.6	<0.6	<0.3	<0.3	<0.3	<0.3	4
013-G005	9/25	<10	57	57	<6	<6	<6	<6	1200
014-G005	9/25	<6	360	360	<3	<3	<3	<3	1400
015-G005	9/25	<1	<2	<2	<0.8	<0.8	<0.8	<0.8	9
016-G005	9/26	<0.2	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	3
017-G004	9/26	<0.2	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	1
018-G005	9/26	<0.2	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	2
019-G003	9/26	<0.2	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	2
020-G005	9/26	<0.2	<0.2	<0.2	<0.08	<0.08	<0.08	<0.08	2

Notations: RF response factor  
 I interference with adjacent peaks  
 NA not analyzed

Summarized by: M. Favero  
 Checked by: C. Scola

Date: \_\_\_\_\_

TABLE O-1

Ambient Air Measurements  
Analytical Results (ug/L)  
Luke AFB, Arizona

Sample	Depth	Date	TCR (ug/L)	TCF (ug/L)	PCE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Xylene (ug/L)	Total Hydroc.
HR	10:55	09/23	0.006	0.01	0.00008	<0.09	<0.1	<0.1	0.8
HR	15:48	09/23	0.0004	<0.00009	<0.00002	<0.09	<0.1	<0.1	0.2
HR	17:47	09/23	0.0005	<0.00009	<0.00002	<0.09	<0.1	<0.1	0.2
HR	10:27	09/24	0.0004	<0.00007	<0.00002	N/A	N/A	N/A	N/A
HR	13:00	09/24	0.0005	<0.00007	<0.00002	N/A	N/A	N/A	N/A
HR	17:36	09/24	0.0005	0.001	0.00004	N/A	N/A	N/A	N/A
HR	9:23	09/25	0.001	<0.00007	0.0002	<0.1	<0.2	<0.08	4
HR	13:12	09/25	0.0004	<0.00007	<0.00002	<0.3	<0.3	<0.2	0.8
HR	17:28	09/25	0.0004	0.0009	0.0001	<0.3	<0.3	<0.2	0.8
HR	8:47	09/26	0.0003	<0.00007	<0.00002	N/A	N/A	N/A	N/A
HR	12:56	09/26	N/A	N/A	N/A	<0.2	<0.2	<0.08	2
HR	8:46	10/7	0.0005	0.0001	0.0002	<0.2	<0.2	<0.1	0.3
HR	13:23	10/7	0.0007	<0.00008	0.0003	<0.2	<0.2	<0.1	0.3
HR	17:26	10/7	0.0004	<0.00008	0.0002	<0.2	<0.2	<0.1	0.2
HR	8:08	10/8	0.001	0.0001	0.0005	<0.2	<0.2	<0.1	0.4
HR	12:35	10/8	0.002	<0.0001	0.0009	<0.2	<0.2	<0.1	<0.2
HR	16:24	10/8	0.001	0.0001	0.0004	<0.2	<0.2	<0.1	0.3
HR	8:52	10/8	0.0008	<0.00008	0.0004	<0.2	<0.2	<0.1	0.3
HR	15:14	10/8	0.0007	<0.00008	0.0002	<0.2	<0.2	<0.1	0.2

Notations:  
 1 - not analyzed with adjacent peaks  
 HR - not analyzed  
 Analyzed by M. J. Sverco  
 Checked by L. J. DeBala  
 Printed by L. J. DeBala

**WESTON**

**APPENDIX P**  
**DISCUSSION OF PCE RESULTS**

**1874B**



## Appendix P

### Discussion of PCE Results

Tetrachloroethene (PCE) was detected in several water samples collected during the first sampling round. In addition, PCE was also detected in several trip blanks also associated with the first sample round. Table P-1 summarizes these data.

Table P-1 contains the data grouped by laboratory batch number, which signifies that the laboratory received, handled, and analyzed these samples together.

Not counting laboratory duplicates or method spikes for the six batches represented, 15 first column positives for PCE were detected out of a total of 40 samples analyzed. Of seven trip blanks in these six batches, five first column positives were detected.

The source of PCE in the trip blanks could not be determined, but possible causes included: use of contaminated water when preparing trip blanks; introduction of PCE to sample during transit; the use of contaminated bottles and inadvertent introduction of PCE in the laboratory during analysis.

Based on the existence of PCE in the trip blanks, it was decided that all sample locations where PCE was detected would be resampled (including those locations where it was detected only in first column results).

The resampling effort included: MW-101, MW-101 (field duplicate), MW-107, MW-111, PW-7, and STP Effluent (four samples collected - two each on consecutive days). Surface water at the O/W Separator Canal was not present and could not be resampled. In addition, eight field blanks and two trip blanks were included. The field blanks were poured from bottle to bottle at each field location to assess the possibility of air-born PCE contaminating the samples.

No PCE was detected in any samples. In addition, no PCE was detected in any second or third round samples. It was therefore concluded that it is unlikely that PCE was actually present in the water samples collected during the first sampling round.

# WESTON

## Summary of PCE Results First Round Water Samples

Laboratory Batch Number	Sample Description	PCE Concen- tration (ug/L)	2nd Column Conf.	Samples in Same Batch With No Detected PCE
8612-374	Trip Blank	2.5	Yes	MW-104
	Method Spike	1.2	N/A	MW-105
	MW-105 (LD)	1.5	N/A	MW-106
8612-396	Effluent 1-1	3.0	Yes	Effluents 1-2, 1-3
	MW-101	13	Yes	PW-4
	Trip Blank	2.2	No*	
8612-402	MW-108	1.6	No	Effluents 2-2, 2-3, 3-2
	Effluent 2-1	6.0	Yes	PW-11
	Effluent 3-2 (LD)	1.6	N/A	Trip Blank 2
	Effluent 3-3	1.3	No	PW-9
	Trip Blank 3	2.5	No*	PW-10
	Trip Blank 4	3.3	No*	PW-10 (FD)
	PW-7	1.1	No	PW-1
9612-433	Effluent 3-1	1.2	No	Effluent 3-1 (LD) Trip Blank
8612-387	MW-111	1.0	Yes	MW-109
	Trip Blank	7.0	No*	MW-110 Field Blank MW-111 (FD)
8612-417	Method Spike	2.4	N/A	MW-107 (FD)
	MW-107	1.6	No	
	MW-107 (LD)	2.4	N/A	
87010484	Surface Water	12	Yes	MW-102 MW-103 MW-103 (FD) Field Blank

\*High Dichloromethane may mask PCE

Abbreviations: LD - Laboratory Duplicate  
FD - Field Duplicate  
N/A - Not Applicable

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**WESTON**

**APPENDIX Q  
SURVEY DATA**

**1874B**

APPENDIX Q

SURVEY DATA

BENCH MARK: USC&GS Brass Cap #B-259 At North End Runway  
Elev. = 1104.82 Ft.  
USC&GS Datum

Maricopa County Highway Dept. Brass Cap @  
N.W. Corner Section 12 T2N-R1W-Elev. 1063.90  
Maricopa County Datum  
(Used For Well No. 101 Only)

BASIS OF COORDINATES:

The reference of the northeast corner of Section 4 having a coordinate of 20,000N, 20,000E and the southeast corner of Section 4 having a coordinate of 14,754.3535N, 20,204.9314E was used as the basis of bearings and basis of coordinates shown hereon.

BORE HOLE COORDINATES:

<u>BH NO.</u>	<u>NORTH</u>	<u>EAST</u>
0301	12185	16458
0302		
0303	10546	15063
0304	10823	15935
0305	11546	16389
0306	11070	16250
0401	10281	12190
0402	10176	12290
0403	10227	12091
0404	9878	12045
0405	10072	11844
0406	10318	11850
0407	10470	12036
0408		
0409	10775	12322
0501	12512	14427
0502	12487	14347
0601	18786	13768
0602	18953	13911
0603	19166	14720
0604	18962	14735



MONITOR WELLS:

<u>WELL</u>	<u>NORTH</u>	<u>EAST</u>	<u>ELEVATION (FT)</u>
4	12392	14111	1088.28
101	13791	32024	1050.86
102	12163	16393	1089.78
103	9624	15022	1082.84
104	10377	12330	1081.44
105	9857	11703	1080.12
106	10472	11715	1081.63
107	12524	14383	1087.14
108	12251	14245	1084.23
109	19118	13204	1110.40
110	18907	14265	1109.13
111	19983	13943	1110.01