File: 22-B-2-B

Headquarters, Air Combat Command
Langley Air Force Base,
Virginia

Final

Phase I RCRA Facility Investigation Report

Table 2 Solid Waste Management Units

Volume I

September 1997

49th FIGHTER WING

49 CES/CEV
Holloman Air Force Base,
New Mexico

PURPOSE OF DOCUMENT

A. This RCRA facility investigation report documents the investigation of 44 solid waste management units (SWMUs) and two areas of concern (AOCs) on Table 2 of Holloman AFB's HSWA permit. This document was prepared for, and in cooperation with, the Base Environmental Office: 49 CES/CEV, 550 Tabosa Avenue, Holloman AFB, NM, 505/479-3931.

B. Information contained in the report will be used to support the Resource Conservation and Recovery Act corrective action program and was also prepared to comply with the Installation Restoration Program, where applicable.

C. The primary objectives of the investigation were to determine whether a release of hazardous waste or hazardous constituents had occurred from any of the Phase I SWMUs and to define the nature and extent of waste constituents at Phase II SWMUs.

D. The report describes the regulatory framework, environmental setting, contains data evaluation criteria, and results, conclusions, and recommendations for each SWMU and AOC.

E. Site closeout (no further action), conditional site closeout (conditional no further action), or further investigation is recommended for each of the 44 SWMUs and 2 AOCs. Recommendations are based on results of the remedial investigation and a qualitative or quantitative risk assessment. Detailed recommendations are provided for sites requiring further investigation.

PHASE I RCRA FACILITY INVESTIGATION REPORT

TABLE 2 SOLID WASTE MANAGEMENT UNITS

VOLUME I

Prepared for:

49 CES/CEV
Holloman Air Force Base, NM

Prepared by:

Radian Corporation
8501 N. Mopac Blvd.
Austin, TX 78759

Under Contract No. DACA45-93-D-0027
with
U.S. Army Corps of Engineers
Omaha District
Omaha, Nebraska

September 1997

TABLE OF CONTENTS

Page

VOLUME I

1.0 INTRODUCTION 1-1

1.1 Regulatory Programs 1-1
1.2 Project Regulatory Framework 1-5
1.3 Summary of Investigation 1-5
1.4 Organization of Report 1-6

2.0 ENVIRONMENTAL SETTING 2-1

2.1 Geography 2-1
2.2 Physiography 2-1
2.3 Geology 2-1
2.4 Current and Future Land Use 2-3
2.5 Hydrogeology 2-3
2.5.1 Surface Water 2-3
2.5.2 Groundwater 2-3
2.6 Current and Future Water Use 2-5

3.0 DATA QUALITY OBJECTIVES AND EVALUATION CRITERIA 3-1

3.1 Data Quality Objectives 3-1
3.2 Data Evaluation Criteria 3-1
3.2.1 Data Validation Conclusions 3-1
3.2.2 Trigger Criteria 3-3
3.2.3 Risk Assessment Overview 3-3
3.3 Decision Trees 3-9

4.0 PHASE I INVESTIGATION, RESULTS, CONCLUSIONS, AND RECOMMENDATIONS . 4-1

4.1 SWMU 119—Building 121 Waste Oil Tank
SWMU 2—Building 121 Oil/Water Separator 4-5
4.1.1 SWMU Description 4-5
4.1.2 Site Investigation and Results 4-6
4.1.3 Risk Assessment Results 4-9
4.1.4 Conclusions 4-9
4.1.5 Recommendations 4-9
4.2 SWMU 15—Building 309 Oil/Water Separator
SWMU 120— Building 309 Waste Oil Tank 4-11
4.2.1 SWMU Description 4-12
4.2.2 SWMU Investigation and Results 4-12
4.2.3 Risk Assessment Results 4-14
4.2.4 Conclusions 4-14

4.2.5 Recommendations 4-14
4.3 SWMU 17— Building 316 Oil/Water Separator
SWMU 121—Building 316 Waste Oil Tank 4-17
4.3.1 SWMU Description 4-17
4.3.2 SWMU Investigation and Results 4-18
4.3.3 Risk Assessment Results 4-20
4.3.4 Conclusions 4-20
4.3.5 Recommendations 4-21
4.4 SWMU 21—Building 702 Oil/Water Separator
SWMU 22—Building 704 Oil/Water Separator
SWMU 123—Building 704 Waste Oil Tank 4-23
4.4.1 SWMU Description 4-24
4.4.2 SWMU Investigation Results 4-24
4.4.3 Risk Assessment Results 4-25
4.4.4 Conclusions 4-30
4.4.5 Recommendations 4-30
4.5 SWMU 32—Building 868 Oil/Water Separator
SWMU 125—Building 868 Fire Water Tank 4-31
4.5.1 SWMU Description 4-31
4.5.2 SWMU Investigation and Results 4-32
4.5.3 Risk Assessment Results 4-33
4.5.4 Conclusions 4-39
4.5.5 Recommendations 4-39
4.6 SWMU 36—Building 1001 Oil/Water Separator
SWMU 126—Building 1001 Waste Oil Tank 4-41
4.6.1 SWMU Description 4-42
4.6.2 SWMU Investigation and Results 4-42
4.6.3 Risk Assessment Results 4-43
4.6.4 Conclusions 4-48
4.6.5 Recommendations 4-48
4.7 SWMU 39—Building 1092 Oil/Water Separator
SWMU 127—Building 1092 Waste Oil Tank
SWMU 135—Building 1092 Oil/Water Separator Drainage Pit 4-49
4.7.1 SWMU Description 4-50
4.7.2 SWMU Investigation and Results 4-50
4.7.3 Risk Assessment Results 4-57
4.7.4 Conclusions 4-57
4.7.5 Recommendations 4-57
4.8 SWMU 40—Building 1166 Oil/Water Separator
SWMU 128 - Building 1166 Waste Oil Tank
SWMU 138 - Building 1166 Oil/Water Separator Drainage Pit 4-59
4.8.1 SWMU Description 4-60
4.8.2 SWMU Investigation and Results 4-60
4.8.3 Risk Assessment Results 4-61
4.8.4 Conclusions 4-64
4.8.5 Recommendations 4-64

4.9 SWMU 54—Building 702 Waste Accumulation Area
SWMU 55—Building 702A Waste Accumulation Area 4-65
4.9.1 SWMU Description 4-66
4.9.2 SWMU Investigation and Results 4-66
4.9.3 Risk Assessment Results 4-67
4.9.4 Conclusions 4-72
4.9.5 Recommendations 4-72
4.10 SWMU 56—Building 807 Test Cell Waste Accumulation Area 4-73
4.10.1 SWMU Description 4-73
4.10.2 SWMU Investigation and Results 4-74
4.10.3 Risk Assessment Results 4-74
4.10.4 Conclusions 4-77
4.10.5 Recommendations 4-77
4.11 SWMU 63—Building 867 Waste Accumulation Area 4-79
4.11.1 SWMU Description 4-80
4.11.2 SWMU Investigation and Results 4-80
4.11.3 Risk Assessment Results 4-80
4.11.4 Conclusions 4-83
4.11.5 Recommendations 4-83
4.12 SWMU 71—Building 1178A Waste Accumulation Area 4-85
4.12.1 SWMU Description 4-85
4.12.2 SWMU Investigation and Results 4-86
4.12.3 Risk Assessment Results 4-86
4.12.4 Conclusions 4-89
4.12.5 Recommendations 4-89
4.13 SWMU 78—Building 78 Trim Pad 3 Waste Accumulation Area 4-91
4.13.1 SWMU Description 4-91
4.13.2 SWMU Investigation and Results 4-92
4.13.3 Risk Assessment Results 4-92
4.13.4 Conclusions 4-94
4.13.5 Recommendations 4-94
4.14 SWMU 91—Building 816 Washrack 4-95
4.14.1 SWMU Description 4-95
4.14.2 SWMU Investigation and Results 4-96
4.14.3 Risk Assessment Results 4-96
4.14.4 Conclusions 4-98
4.14.5 Recommendations 4-98
4.15 SWMU 124—Building 752 Waste Oil Tank 4-99
4.15.1 SWMU Description 4-100
4.15.2 SWMU Investigation and Results 4-100
4.15.3 Risk Assessment Results 4-104
4.15.4 Conclusions 4-104
4.15.5 Recommendations 4-104
4.16 SWMU 136—Building 1119 Washrack Drainage Pit 4-105
4.16.1 SWMU Description 4-106
4.16.2 SWMU Investigation and Results 4-106
4.16.3 Risk Assessment Results 4-109
4.16.4 Conclusions 4-109

4.16.5 Recommendations 4-110
4.17 SWMU 155—Sludge Drying Beds 4-111
4.17.1 SWMU Description 4-111
4.17.2 SWMU Investigation and Results 4-112
4.17.3 Risk Assessment Results 4-117
4.17.4 Conclusions 4-117
4.17.5 Recommendations 4-118
4.18 SWMU 156—Imhoff Tanks 4-119
4.18.1 SWMU Description 4-119
4.18.2 SWMU Investigation and Results 4-119
4.18.3 Risk Assessment Results 4-121
4.18.4 Conclusions 4-133
4.18.5 Recommendations 4-134
4.19 SWMU 164—Building 1080 Pond 4-135
4.19.1 SWMU Description 4-135
4.19.2 SWMU Investigation and Results 4-136
4.19.3 Risk Assessment Results 4-136
4.19.4 Conclusions 4-139
4.19.5 Recommendations 4-139
4.20 SWMU 183—Air Base Sewer System 4-141
4.20.1 SWMU Description 4-141
4.20.2 SWMU Investigation and Results 4-141
4.20.3 Conclusions 4-143
4.20.4 Recommendations 4-143
4.21 AOC-U—Lost River Basin 4-145
4.21.1 SWMU Description 4-145
4.21.2 SWMU Investigation and Results 4-147
4.21.3 Risk Assessment Results 4-147
4.21.4 Conclusions 4-151
4.21.5 Recommendations 4-151

5.0 PHASE II INVESTIGATION RESULTS, CONCLUSIONS, AND RECOMMENDATIONS . 5-1

5.1 SWMU 118 - Building 21 Pesticide Holding Tank
SWMU 132 - Building 21 Leach Field (Open Pit)
SWMU AOC-A - Open Concrete Containment Box 5-5
5.1.1 SWMU Description 5-5
5.1.2 SWMU Investigation and Results 5-8
5.1.3 Risk Assessment Results 5-23
5.1.4 Conclusions 5-23
5.1.5 Recommendations 5-24
5.2 SWMU 129—Building 1191 and 1192 Spill Tanks
SWMU 178—Building 1191 and 1192 Fuel Runoff Pits 5-25
5.2.1 SWMU Description 5-25
5.2.2 SWMU Investigation and Results 5-26
5.2.3 Risk Assessment Results 5-47
5.2.4 Conclusions 5-49
5.2.5 Recommendations 5-49

5.3 SWMU 165 - Building 1176 Pond
SWMU 177 - Building 1176 Sumps
SWMU 179 - Building 1176 Discharge Box
SWMU 181 - Building 1176 Drainage Troughs 5-51
5.3.1 SWMU Description 5-51
5.3.2 SWMU Investigation and Results 5-53
5.3.3 Risk Assessment Results 5-65
5.3.4 Conclusions 5-65
5.3.5 Recommendations 5-69

6.0 TABLE 2 SWMUs UNDER INVESTIGATION UNDER OTHER PROGRAMS 6-1

6.1 SWMU 75 - DRMO Waste Storage Area 6-3
6.2 SWMU 101 - Building 101 (Old Main Base) Landfill 6-5
6.3 SWMU 141 - Pad 9 Drainage Pit, Drain, and Drainline 6-7
6.4 SWMU 185 - Wastewater Recirculation Line 6-9

7.0 REFERENCES 7-1

VOLUME II

APPENDIX A: RCRA Subpart S Action Levels

APPENDIX B: Basewide Background Upper Tolerance Limits (UTLs) for Metals

APPENDIX C: Risk Assessment Results
Attachment C-1: Chemicals of Potential Concern and Supporting Statistical Data
Attachment C-2: Air Emissions Methodology
Attachment C-3: Toxicity Assessment
Attachment C-4: Risk Characterization Methodology and Risk Model Output
Attachment C-5: Risk-based Screen Results

VOLUME III

APPENDIX D: Field Data
D.1 Drilling Logs
D.2 Well Construction Diagrams
D.3 Well Development Logs and Photos
D.4 Groundwater Sampling Logs
D.5 Survey Data

APPENDIX E: Geotechnical Results

LIST OF FIGURES

Page

1-1 Table 2 SWMU Locations at Holloman AFB, New Mexico 1-4

2-1 Location of Holloman AFB 2-2

2-2 Surface Drainages at Holloman AFB 2-4

3-1 Phase I Investigation Decision Tree 3-10

3-2 Phase II Investigation Decision Tree 3-11

4-1 Phase I Locations at Holloman AFB, New Mexico 4-4

4.1-1 SWMUs 119 and 2 Site Features and Sampling Locations 4-5

4.2-1 SWMUs 15 and 120 Features and Sampling Locations 4-11

4.3-1 SWMUs 17 and 121 Features and Sampling Locations 4-17

4.4-1 SWMUs 21, 22, and 123 Features and Sampling Locations 4-23

4.5-1 SWMUs 32 and 125 Features and Sampling Locations 4-31

4.6-1 SWMUs 36 and 127 Features and Sampling Locations 4-41

4.7-1 SWMUs 39, 127, and 135 Site Features and Sampling Locations 4-49

4.8-1 SWMUs 40, 128, and 138 Features and Sampling Locations 4-59

4.9-1 SWMUs 54 and 55 Features and Sampling Locations 4-65

4.10-1 SWMU 56 Features and Sampling Locations 4-73

4.11-1 SWMU 63 Features and Sampling Locations 4-79

4.12-1 SWMU 71 Features and Sampling Locations 4-85

4.13-1 SWMU 78 Site Features and Sampling Locations 4-91

4.14-1 SWMU 91 Features and Sampling Locations 4-95

4.15-1 SWMU 124 Features and Sampling Locations 4-99

4.16-1 SWMU 136 Features and Sampling Locations 4-105

LIST OF FIGURES (Continued)

Page

4.17-1 SWMU 155 Features and Sampling Locations 4-111

4.18-1 SWMU 156 Site Features and Sampling Locations 4-120

4.19-1 SWMU 164 Features and Sampling Locations 4-135

4.20-1 Holloman AFB SLI Decision Flowchart 4-142

4.21-1 SWMU AOC-U Features and Sampling Locations 4-146

5-1 Phase II SWMU Locations at Holloman AFB, New Mexico 5-3

5.1-1 Features and Sampling Locations at SWMUs 118, 132, and AOC-A 5-6

5.1-2 Features and Sampling Locations at SWMUs 118, 132, and AOC-A 5-7

5.1-3 Occurrences of PCB-1260 and TRPH in Soil at SWMUs 118, 132, and AOC-A 5-12

5.1-4 Occurrences of Delta-BHC, Heptachlor Epoxide and 4'4-DDE in the Soil at SWMUs 118, 132, and AOC-A 5-13

5.1-5 Occurrences of Aromatic VOCs in Groundwater at SWMU 118 5-21

5.1-6 Occurrences of Organochlorine Pesticides in the Groundwater at AOC-A 5-22

5.2-1 Features and Sampling Locations at SWMUs 129 and 178 5-27

5.2-2 Occurrences of TRPH in the Soil at SWMUs 129 and 178 5-44

5.2-3 Occurrences of Lead in the Soil at SWMUs 129 and 178 5-45

5.3-1 Features and Sampling Locations at SWMUs 165, 177, and 181 5-52

5.3-2 Occurrences of Lead in the Soil at SWMU 179 5-63

5.3-3 Occurrences of Trichloroethene in Groundwater at SWMUs 177 and 179 5-68

LIST OF TABLES

Page

1-1 SWMUs Under Investigation 1-2

1-2 Phase I Investigation Summary 1-7

1-3 Phase II Investigation Summary 1-9

3-1 Analyte-Specific Trigger Criteria 3-4

4-1 Phase I Investigation Summary 4-2

4.1-1 Analytical Results for Soil Samples—SWMU 119 4-7

4.1-2 Results of Analyses for Soil Samples—SWMU 2 4-8

4.2-1 Analytical Results for Soil Samples—SWMU 15 4-13

4.3-1 Analytical Results for Soil Samples—SWMU 17 4-19

4.4-1 Analytical Results for Soil Samples—SWMU 21 4-26

4.4-2 Analytical Results for Soil Samples—SWMU 22 4-27

4.4-3 Analytical Results for Soil Samples—SWMU 123 4-28

4.5-1 Analytical Results for Soil Samples—SWMU 32 4-34

4.5-2 Analytical Results for Soil Samples—SWMU 125 4-36

4.5-3 Analytical Results for Sludge Sample—SWMU 32 4-37

4.5-4 Analytical Results for Sludge Sample—SWMU 125 4-38

4.6-1 Analytical Results for Soil Samples—SWMU 36 4-44

4.6-2 Analytical Results for Soil Samples—SWMU 126 4-45

4.6-3 Analytical Results for Sludge Samples—SWMU 36 4-46

4.6-4 Analytical Results for Sludge Samples—SWMU 126 4-47

4.7-1 Analytical Results for Soil Samples—SWMU 39 4-52

LIST OF TABLES (Continued)

Page

4.7-2 Analytical Results for Soil Samples—SWMU 127 4-54

4.7-3 Analytical Results for Soil Samples—SWMU 135 4-56

4.8-1 Analytical Results for Soil Samples—SWMU 40 4-62

4.8-2 Analytical Results for Soil Samples—SWMU 138 4-63

4.9-1 Analytical Results for Soil Samples—SWMU 54 4-68

4.9-2 Analytical Results for Soil Samples—SWMU 55 4-71

4.10-1 Analytical Results for Soil Samples—SWMU 56 4-75

4.11-1 Analytical Results for Soil Samples—SWMU 63 4-81

4.12-1 Analytical Results for Soil Samples—SWMU 71 4-87

4.13-1 Analytical Results for Soil Samples—SWMU 78 4-93

4.14-1 Analytical Results for Soil Samples—SWMU 91 4-97

4.15-1 Analytical Results for Soil Samples—SWMU 124 4-101

4.15-2 Analytical Results for Sludge Samples—SWMU 124 4-102

4.16-1 Analytical Results for Soil Samples—SWMU 136 4-107

4.17-1 Analytical Results for Soil Samples—SWMU 155 4-113

4.18-1 Analytical Results for Soil Samples—SWMU 156 4-122

4.18-2 Analytical Results for Sludge Samples—SWMU 156 4-131

4.19-1 Analytical Results for Soil Samples—SWMU 164 4-137

4.21-1 Analytical Results for Soil Samples—AOC-U 4-148

5-1 Phase II Investigation Summary 5-2

5.1-1 Analytical Results for Soil Samples—SWMU 118 5-10

LIST OF TABLES (Continued)

Page

5.1-2 Analytical Results for Soil Samples—SWMU 132 5-14

5.1-3 Analytical Results for Soil Samples—AOC-A 5-17

5.1-4 Analytical Results for Groundwater Samples—SWMU 118 5-19

5.1-5 Analytical Results for Groundwater Samples—AOC-A 5-20

5.2-1 Analytical Results for Soil Samples—SWMU 129 5-29

5.2-2 Analytical Results for Groundwater Samples—SWMU 129 5-48

5.3-1 Analytical Results for Soil Samples—SWMU 179 5-54

5.3-2 Analytical Results for Soil Samples—SWMU 181 4-64

5.3-3 Analytical Results for Groundwater Samples—SWMU 177 4-66

5.3-4 Analytical Results for Groundwater Samples—SWMU 179 4-67

LIST OF ACRONYMS

AFB	Air Force Base
AOC	Area of concern
bgl	Below ground level
BOD	Biological oxygen demand
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMS	Corrective measures study
CNFA	Conditional no further action
COPC	Chemical of potential concern
DRMO	Defense Reutilization and Marketing Office
DQO	Data quality objective
EPA	U.S. Environmental Protection Agency
EQ	ecological quotient
GC	Gas chromatograph
HBLs	Health-based levels
HHSs	Human health standards
HQ-ACC	Headquarters-Air Combat Command
HSWA	Hazardous and Solid Waste Amendments
IRFNA	Inhibited red fuming nitric acid
IRP	Installation Restoration Program
ITIR	Informal Technical Information Report
IWFNA	Inhibited white fuming nitric acid
LCS	Laboratory control sample
LTM	Long-term monitoring
MS	Matrix spike
NCP	National Contingency Plan
NFA	No further action
NMED	New Mexico Environment Department
NM WQCC	New Mexico Water Quality Control Commission

LIST OF ACRONYMS (Continued)

OVM	Organic vapor meter
POL	Petroleum, oil, and lubricants
ppb	parts per billion
QAPP	Quality assurance project plan
QA/QC	Quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RI	Remedial investigation
SARA	Superfund Amendments and Reauthorization Act
SWMUs	Solid waste management units
TCE	Trichloroethene
TDS	Total dissolved solids
TIC	Tentatively identified compound
TRPH	Total recoverable petroleum hydrocarbons
UDMH	Unsymmetrical dimethylhydrazine
USACE	U.S. Army Corps of Engineers
UTL	Upper tolerance limit
VOCs	Volatile organic compound

Section 1
INTRODUCTION

This report summarizes the activities and contains the results, conclusions, and recommendations of the Table 2 Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) at Holloman Air Force Base (AFB), New Mexico. The Table 2 RFI was conducted at 44 Phase I and Phase II solid waste management units (SWMUs) and 2 areas of concern (AOCs). The primary objectives of the investigation were to:

- Determine whether a release of hazardous waste or hazardous constituents had occurred from any of the Phase I SWMUs; and
- Define the nature and extent of waste constituents at Phase II SWMUs.

The primary decisions associated with these objectives were to:

- Determine whether detected releases require further evaluation;
- Quantitatively determine risks to human health and/or the environment posed by waste constituents at Phase II SWMUs; and
- Recommend no further action (NFA), conditional no further action (CNFA), or further evaluation for each of the SWMUs.

The SWMUs and AOCs were divided into 28 SWMU groups for this investigation. The SWMUs and AOCs are listed in Table 1-1, and their locations are shown in Figure 1-1.

This section contains a brief discussion of the regulatory programs relevant to the SWMUs, a description of the regulatory framework for the project, and a summary of the investigation and the results, conclusions, and recommendations for each of the SWMUs. Section 1 concludes with an overview of the other sections in the report.

1.1 Regulatory Programs

Holloman AFB has a RCRA permit for an on-site container storage area for currently generated hazardous wastes, and is subject to the requirements of the RCRA corrective action program. The Hazardous and Solid Waste Amendments (HSWA) portion of Holloman AFB's RCRA permit requires that the Base investigate and remediate the release of any hazardous waste or constituents from active and inactive SWMUs listed on Tables 1, 2, and 3 of the HSWA permit.

Holloman AFB also implements the Installation Restoration Program (IRP) to ensure that past waste management sites are identified and remediated, as necessary, to mitigate hazards to human health and the environment. The IRP follows the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the 1986 statutory amendments to CERCLA (the Superfund Amendments and Reauthorization Act [SARA]) requiring federal facilities to comply with the National Contingency Plan (NCP).

As appropriate, the Base must comply with the requirements of both programs. Both are similarly phased and ultimately intended to ensure remediation of sites that pose a threat to human health or the environment. In the preamble to the proposed RCRA corrective action rules, the U.S.

~ includes all SWMUs in this report, two AOCs separate

Table 1-1
SWMUs Under Investigation

SWMU Count

	SWMU No.	SWMU Name	IRP Site No.	RFI Phase	HSWA Permit Table
	2	Bldg. 121 Oil/Water Separator		I	2
	119	Bldg. 121 Waste Oil Tank		I	2
	15	Bldg. 309 Oil/Water Separator		I	2
	120	Bldg. 309 Waste Oil Tank		I	2
	17	Bldg. 316 Oil/Water Separator		I	2
	121	Bldg. 316 Waste Oil Tank		I	2
	21	Bldg. 702 Oil/Water Separator		I	3
	22	Bldg. 704 Oil/Water Separator	47	I	2
	123	Bldg. 704 Waste Oil Tank		I	2
	32	Bldg. 868 Oil/Water Separator		I	2
11	125	Bldg. 868 Fire Water Tank		I	2
	36	Bldg. 1001 Oil/Water Separator		I	2
	126	Bldg. 1001 Waste Oil Tank		I	2
	39	Bldg. 1092 Oil/Water Separator		I	2
	127	Bldg. 1092 Waste Oil Tank	31	I	2
	135	Oil/Water Separator Drainage Pit		I	2
	40	Bldg. 1166 Oil/Water Separator		I	2
	128	Bldg. 1166 Waste Oil Tank		I	2
	138	Oil/Water Separator Drainage Pit		I	2
	54	Bldg. 702 Waste Accumulation Area	47	I	2
21	55	Bldg. 702A Waste Accumulation Area		I	2
	56	Bldg. 807 Test Cell Waste Accumulation Area		I	2
	63	Bldg. 867 Waste Accumulation Area		I	2
	71	Bldg. 1178A Waste Accumulation Area		I	2
	75	DRMO Waste Storage Area [a]		NA	2
	78	Trim Pad 3 Waste Accumulation Area		I	2
	91	Bldg. 816 Washrack		I	2
	101	Bldg. 121 (Old Main Base) Landfill [b]		NA	2
	118	Bldg. 21 Pesticide Holding Tank		I	2
30	132	Bldg. 21 Leach Field	16	II	1
	AOC-A	Open Concrete Containment Box		II	1

Table 1-1 (Continued)

SWMU No.	SWMU Name	IRP Site No.	RFI Phase	HSWA Permit Table
124	Bldg. 752 Waste Oil Tank		I	2
129 178	Bldg. 1191 and 1192 Spill Tanks Bldg. 1191 and 1192 Runoff Pits	 36	I II	2 1
136	Bldg. 1119 Washrack Drainage Pit		I	2
141	Pad 9 Drainage Pit, Drain, and Drainline [c]	27	NA	2
155	Sludge Drying Beds		I	2
156	Imhoff Tanks		I	2
164	Bldg. 1080 Pond		I	2
165 177 179 181	Bldg. 1176 Pond Bldg. 1176 Sumps Discharge Box Bldg. 1176 Drainage Troughs	 39	II II II II	1 2 1 2
183	Air Base Sewer System		I	2
184	Wastewater Recirculation Line [d]		I	2
AOC-U	Lost River Basin		I	2

NA = Not applicable. The SWMUs are on Table 2, but have been previously investigated, or do not require investigation at this time.

[a] No investigation was plannned for SWMU 75 because existing closure and post-closure contingency plans are included in the RCRA Part B permit and will be followed at the time of closure.

[b]The results of the previous RI and associated baseline risk assessment (Walk, Haydel, and Associates, Inc., 1989) concluded that the SWMU poses no significant risk to human health or the environment; therefore, no investigation of the unit was planned for the Table 2 RFI.

[c] The investigation for SWMU 141 was performed prior to the Table 2 Phase I RFI. The results are presented in the *Preliminary Assessment and Site Investigation Report: Investigation of Four Waste Sites, Holloman AFB, New Mexico* (Radian, 1993). NFA was recommended for SWMU 141 in this report.

[d] No investigation was planned as part of the Table 2 Phase I RFI, since closure of SWMU 184 will occur as part of the Sewage Lagoons closure in approximately 2 to 3 years.

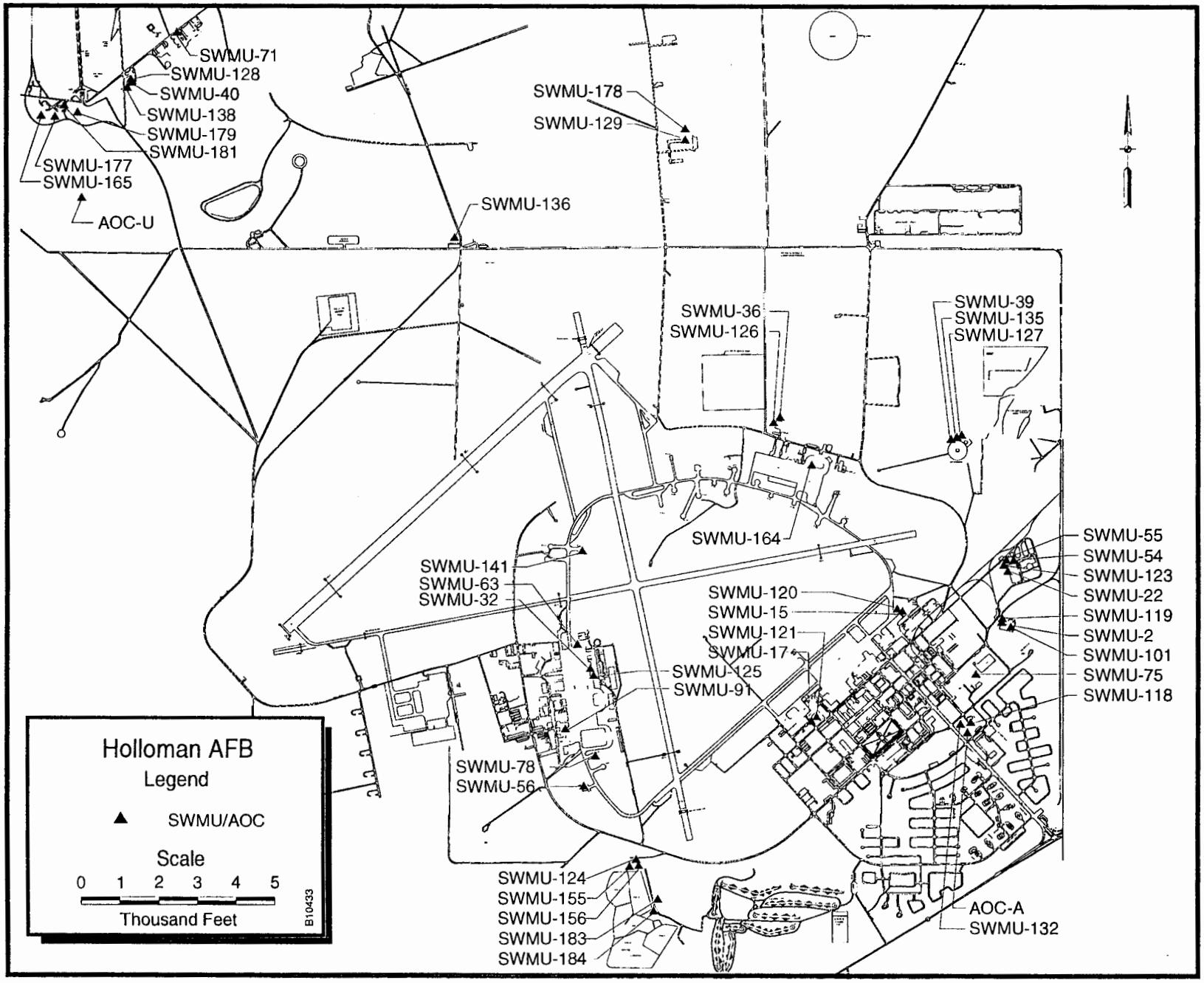


Figure 1-1. Table 2 SWMU Locations at Holloman AFB, New Mexico

Environmental Protection Agency (EPA) encourages coordination of the two independent programs. Therefore, the activities necessary for these programs have been coordinated to reduce duplicative efforts. Integration of the programs has been implemented and accepted for the RCRA Table 1 SWMUs in the *Remedial Investigation (RI) Report—Investigation, Study, and Recommendation for 29 Waste Sites* (Radian, 1992a), and for one Table 2 SWMU and one Table 3 SWMU in the *Preliminary Assessment and Site Investigation Report, Investigation of Four Waste Sites* (Radian, 1993).

1.2 Project Regulatory Framework

Section IV (Special Conditions) of Holloman AFB's HSWA permit contains the specific requirements for the RFI. This RFI was designed to document the presence or absence of hazardous waste or hazardous constituents due to a release from the SWMUs and AOCs listed in Table 1-1.

The majority of the SWMUs listed in Table 1-1 are on Table 2 of Holloman AFB's HSWA permit. In addition to the Table 2 SWMUs, one SWMU from Table 3 (SWMU 21) and four SWMUs and one AOC (118, 132 and AOC-A) from Table 1 are included. SWMU 21 is an oil/water separator associated with a waste oil tank listed on Table 2. A request for permit modification will be submitted to move this SWMU from Table 3 to Table 2. The other oil/water separators under investigation were recently moved from Table 3 to Table 2 via a permit modification. The associated units were investigated simultaneously because of their physical proximity to one another. SWMUs 118 and 132 AOC-A (from Table 1) were investigated in 1991 as part of the Table 1 RFI. The results of this investigation are detailed in the *RI Report* (Radian, 1992a). These SWMUs and AOC are adjacent to SWMUs listed on Table 2, so the Phase II RFI studies recommended in the previous investigation were carried out in conjunction with Phase I RFI activities at the neighboring Table 2 SWMUs.

1.3 Summary of Investigation

This investigation involved various field activities to collect environmental data. These activities were guided by the approved *Work Plan* (Radian, 1993), which provided technical guidelines for performing the field investigation, including procedures for the execution of field tasks, criteria for data collection, quality assurance/quality control (QA/QC) procedures, guidelines for laboratory analysis, and guidelines to ensure the health and safety of project personnel. The field investigation commenced in October 1993 and was completed in December 1993.

Following the field investigation and prior to preparation of this report, a QA/QC review of the analytical data was completed. QC data associated with this investigation indicate that chemical data are acceptable and defensible. Data show that QC mechanisms were effective in ensuring measurement data reliability within expected limits of sampling and analytical error. Data validation conclusions are presented in detail in the *Informal Technical Information Report (ITIR)* (Radian, 1994).

The primary activities required by the RFI were to determine whether a release has occurred, and to determine whether the release requires further evaluation because of potential human health and/or environmental risks, or to fill data gaps. To determine whether any of the SWMUs posed a risk to human health or the environment, chemicals of potential concern (COPCs) were identified; either a quantitative or qualitative risk assessment was then performed for each SWMU. Quantitative risk assessments were done for the Phase II SWMUs in order to update the findings of the existing (Phase I) risk assessments for these SWMUs. A quantitative risk assessment was also

done for SWMU 164, which was considered the Phase I SWMU most likely to require additional work since it was the site of a recent fuel spill. A quantitative risk assessment was done for this SWMU to ensure that potential risks were sufficiently characterized to support a corrective measures study (CMS) if necessary. To develop conclusions and recommendations from the analytical and risk assessment results, decision trees were used to make one of the following recommendations for each SWMU.

- NFA was recommended for SWMUs where no release has occurred, or where a potential release does not warrant further investigation.
- CNFA was recommended for SWMUs that pose no risk to human health or the environment, but have total recoverable petroleum hydrocarbon (TRPH)-contaminated soil that must be remediated.
- Further evaluation was recommended for SWMUs where additional data may be needed to evaluate risk and/or to support interim measures or a CMS.

Tables 1-2 and 1-3 summarize results and recommendations for the Phase I and Phase II SWMUs, respectively. Trigger criteria and decision trees are discussed in detail in section 3.

1.4 Organization of Report

This RFI report has a total of seven sections. The contents of sections 2 through 7 are described below.

Section 2—Environmental Setting presents information about physiography, geology, hydrogeology, and land and water use. This information is fundamental to the technical development of the investigation, and provides background information that is referred to throughout the report.

Section 3—Data Quality Objectives (DQOs) and Evaluation Criteria presents the guidelines used to evaluate analytical results and formulate conclusions and recommendations. It includes discussions concerning the use of data validation conclusions, trigger criteria, decision trees, and risk assessment results.

Section 4—Results, Conclusions, and Recommendations for the Phase I SWMUs contains individual subsections for each of the Phase I SWMU groups investigated. Each subsection contains the following discussions:

- Executive summary for the SWMU or SWMU group;
- SWMU features, history, and a SWMU figure;
- Summary of investigation;
- Geology and hydrogeology specific to the SWMU or SWMU group;
- Analytical results, including summary data tables;
- Risk assessment results; and
- Conclusions and recommendations.

Section 5—Results, Conclusions, and Recommendations for the Phase II SWMUs contains individual subsections for each of the Phase II SWMU groups investigated. Subsections contain the same discussions as those in section 4.

Table 1-2
Phase I Investigation Summary

SWMU	SWMU Description	Nature of Suspected Release	Analytes > Trigger Criteria	Risk-based Screen COPCs[a]	Risk Assessment Results	Recommendations
2 119	Bldg. 121 Oil/Water Separator Bldg. 121 Waste Oil Tank	Leak	None	None	Qual	NFA
15 120	Bldg. 309 Oil/Water Separator Bldg. 309 Waste Oil Tank	Leak	None	None	Qual	NFA
17 121	Bldg. 316 Oil/Water Separator Bldg. 316 Waste Oil Tank	Leak	None	None	Qual	NFA
21 22 123	Bldg. 702 Oil/Water Separator Bldg. 704 Oil/Water Separator Bldg. 704 Waste Oil Tank	Leak	Benzene, TRPH	Surface soil: none; subsurface soil: 1,1-dichloroethene, benzene; groundwater[b]: arsenic, benzene, beryllium, ethylbenzene, tetrachloroethene	Acceptable risk	CNFA/NFA[b]
32 125	Bldg. 868 Oil\Water Spearator Bldg. 868 Fire Water Tank	Leak	None	None	Qual	NFA
36 126	Bldg. 1001 Oil/Water Separator Bldg. 1001 Waste Oil Tank	Leak	TRPH	None	Qual	CNFA
39 127 135	Bldg. 1092 Oil/Water Separator Bldg. 1092 Waste Oil Tank Oil/Water Separator Drainage Pit	Leak	TRPH	No risk-based screen, pending further investigation	Qual	Phase II investigation
40 128 138	Bldg. 1166 Oil/Water Separator Bldg. 1166 Waste Oil Tank Oil/Water Separator Drainage Pit	Leak	TRPH	None	Qual	CNFA
54 55	Bldg. 702 Waste Accumulation Area Bldg. 702A Waste Accumulation Area	Waste oil spills	TRPH	Surface soil: none; subsurface soil: 1,1-dichloroethene, benzene; groundwater[b]: arsenic, benzene, beryllium, ethylbenzene, tetrachloroethene	Acceptable risk	NFA
56	Bldg. 807 Waste Accumulation Area	Waste oil and solvent spills	None	None	Qual	NFA
63	Bldg. 867 Waste Accumulation Area	Waste oil and solvent spills	None	None	Qual	NFA
71	Bldg. 1178A Waste Accumulation Area	Waste oil and solvent spills	None	None	Qual	NFA
75	DRMO Hazardous Waste Storage Area	Small oil spills	NA[c]	NA[c]	NA[c]	NA[c]
78	Trim Pad 3 Waste Accumulation Area	Waste oil and hydraulic fluid	None	None	Qual	NFA
91	Bldg. 816 Washrack	Contaminated rinsewater	None	None	Qual	NFA
101	Bldg. 121 (Old Main Base) Landfill	Domestic solid waste and incinerator ash	NA[d]	NA[d]	NA[d]	NA[d]

Table 1-2 (Continued)

SWMU	SWMU Description	Nature of Suspected Release	Analytes > Trigger Criteria	Risk-based Screen COPCs[a]	Risk Assessment Results	Recommendations
124	Bldg. 752 Waste Oil Tank	Leak	None	None	Qual	NFA
136	Bldg. 1119 Washrack Drainage Area	Contaminated rinsewater	TRPH	None	Qual	CNFA
141	Pad 9 Drainage Pit	Contaminated rinsewater	NA[d]	NA[d]	NA[d]	NA[d]
155	Sludge Drying Beds	Sewage sludge	None	Beryllium	Qual	NFA
156	Imhoff Tanks	Sewage sludge	None	Beryllium	Qual	NFA
164	Bldg. 1080 Pond	Flightline runoff and fuel spill	None	Arsenic, barium, cadmium, chromium[e]	Acceptable risk	NFA
183	Air Base Sewer System	Sewer line leaks	NA[f]	NA[f]	NA[f]	Phase II investigation
184	Wastewater Recirculating Line	Sewage lagoon waste	NA[g]	NA[g]	NA[g]	NA[g]
AOC-U	Lost River Basin	Runoff from IRP sites, SWMUs, and storage areas	None	None	Qual	NFA

NFA = No further action.
CNFA = Conditional no further action.
Qual = Qualitative, rather than quantitative risk assessment done for this SWMU. Qualitative results for each SWMU are presented in Section 4.
NA = Not applicable.
[a] Risk-based screen COPCs are for ingestion unless otherwise noted.
[b] Groundwater data collected during previous investigation.
[c] No investigation performed at this SWMU.
[d] SWMU was investigated previously under another program.
[e] Risk-based screen COPCs for inhalation.
[f] No chemical analyses or risk assessment activities were preformed in this phase of the investigation.
[g] SWMU will be investigated as part of sewage lagoon closure.
[h] CNFA is recommended for SWMU 123; NFA is recommended for SWMUs 21 and 22.

Table 1-3
Phase II Investigation Summary

SWMU	SWMU Description	Nature of Suspected Release	Analytes > Trigger Criteria	Risk-based Screen COPCs			Risk Assessment Results	Recommendations
				Surface Soil	Subsurface Soil	Groundwater		
118 132 AOC-A	Bldg. 21 Pesticide Holding Tank Bldg. 21 Entomology Leach Field Building 21 Pesticide	Pesticides, PCBs, and solvents spills	PCB 1260 and TRPH in soil. Gamma-BHC and heptachlor epoxide in groundwater.	heptachlor epoxide PCB-126-0	PCB-1260	alpha-BHC, benzene, chlorobenzene, dieldrin, ethylbenzene, gamma-BHC, heptachlor epoxide, methylene chloride, trichloroethene	Acceptable risk	CNFA
129 178	Bldg. 1191 Spill Tank Bldg. 1191 Fuel Runoff Pits	Unconventional fuels spills	TRPH in soil. Lead in drain sample.	benzo-a-pyrene	None	beryllium, bromodichloromethane, nitrate/nitrite, trichloroethene	Acceptable risk	CNFA
165 177 179 181	Bldg. 1176 Pond Bldg. 1176 Sumps Discharge Box Bldg. 1176 Drainage Trough	Unconventional fuels and solvents spills	TCE and TCA in groundwater.	arsenic, benzo-a-pyrene,	None	1,1-dichloroethene, beryllium, carbon tetrachloride, tetrachloroethene, trans-1,3-dichloropropene, trichloroethene, vinyl chloride	Acceptable risk	NFA

NFA = No further action.
CNFA = Conditional no further action.
NA = Not applicable.

Section 6—Table 2 SWMUs Investigated Under Other Programs contains brief summaries of the features of four Table 2 SWMUs that have already been investigated or do not require investigation at this time.

Section 7—References contains a list of references used in preparing this RFI report.

Section 2
ENVIRONMENTAL SETTING

The following section describes the environmental setting of Holloman AFB, New Mexico. Detailed discussions of physiography, geology, and hydrogeology are presented. These discussions were compiled from existing Base records, published literature, previous reports, and this field investigation.

2.1 Geography

Holloman AFB is situated in south-central New Mexico, in the northwest-central part of Otero County (Figure 2–1). The Base occupies about 50,000 acres in the northeast quarter of Township 17S, Range 8E. Additional land extending northward is occupied by the White Sands Missile Range testing facilities. Privately and publicly owned lands border the remainder of the Base. The major highway serving the Base is Highway 70, which runs southwest from Alamogordo and forms a boundary between the Base and public lands. Alamogordo is located approximately 7 miles east of the Base. With a population of approximately 31,000, it is the only town of appreciable size within 40 miles of the Base. Holloman AFB has a population of approximately 5500.

2.2 Physiography

The Base is located in the Tularosa Basin, which is bound by the San Andres mountains in the west and the Sacramento mountains in the east. The basin's interior plain has low relief, with altitudes ranging from about 4000 ft in the southwest to about 4400 ft in the northeast. The surrounding mountains rise abruptly to altitudes of 7000–12,000 ft.

The climate in the Tularosa Basin is arid, with low annual rainfall and low relative humidity. The surrounding mountain ranges greatly influence local weather. They modify approaching weather systems and provide orographic lifting, which produces summer thunderstorms. Mean annual precipitation is 7.9 in., mostly from thunderstorm activity from May through October. Winter is generally dry and is characterized by clear skies and erratic snowfall. The period from March through May is characterized by strong southerly wind flow and periods of blowing dust and sand.

The mean annual lake evaporation rate, commonly used as an estimate of the mean annual evapotranspiration rate, is approximately 67 in. per year. Therefore, the annual net precipitation (mean annual net precipitation minus mean annual evapotranspiration) for the Holloman AFB area is approximately minus 59 in. per year, representing a net loss in groundwater from evapotranspiration.

2.3 Geology

The Tularosa Basin is a bolson, or a basin that has no surface drainage outlet. Bolson deposits are sediments carried by water into a closed basin. The bolson fill in the Tularosa Basin is derived from the erosion of limestone, dolomite, and gypsum in the surrounding mountains. Coarser material is deposited at the base of the mountains; finer material is carried to the basin's interior. The near-surface bolson deposits consist of sediments that are of alluvial, eolian, and lacustrine or playa origin.

Alluvial fan deposits are characteristically laterally discontinuous units of interbedded sand, silt, and clay. The eolian deposits consist primarily of gypsum sand. Alluvial and eolian deposits are often indistinguishable due to the reworking of alluvial sediments by eolian processes. Lacustrine or playa deposits in the area

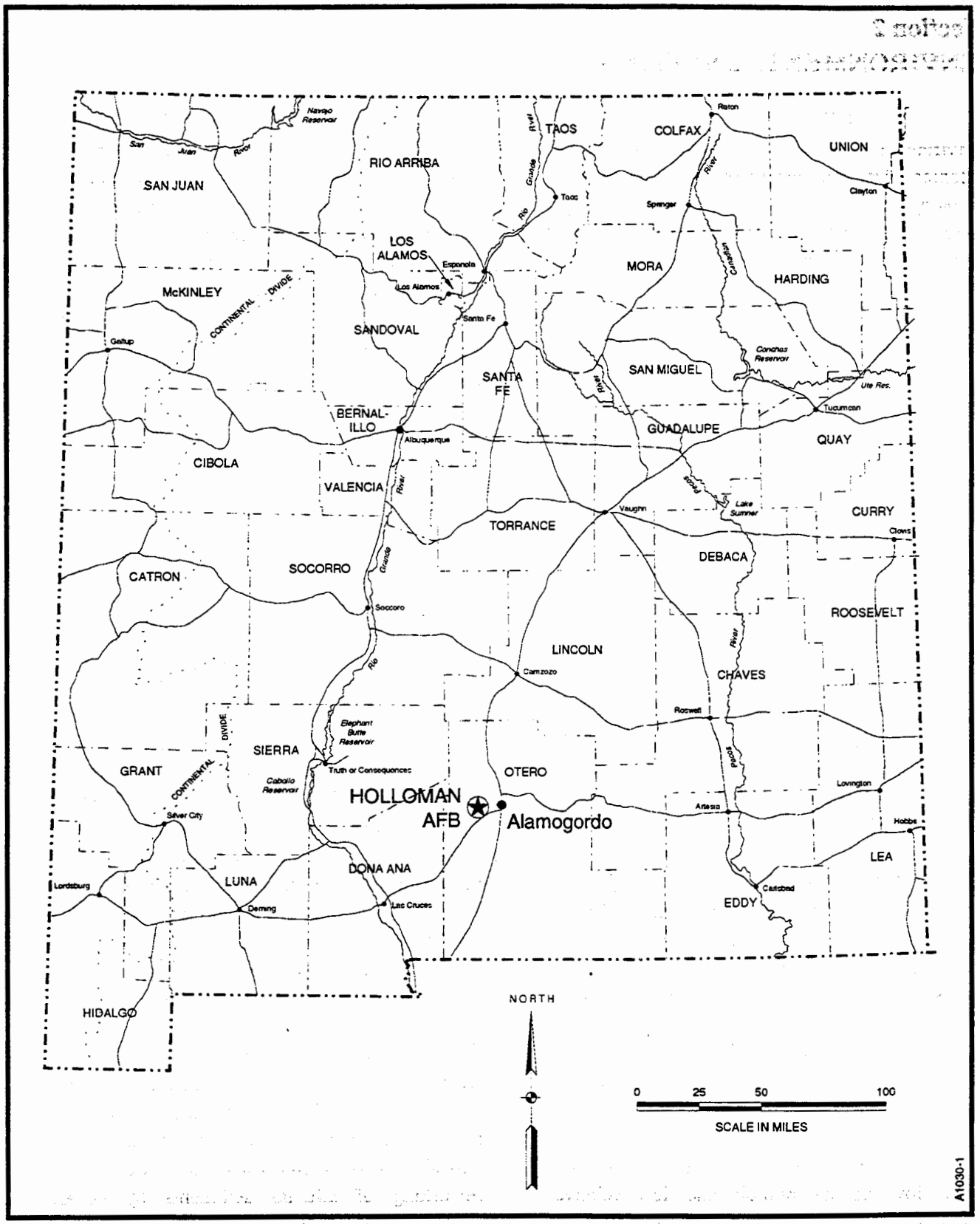


Figure 2-1. Location of Holloman AFB

consist of clay containing gypsum crystals. Lacustrine deposits are juxtaposed with alluvial fan and eolian deposits throughout the Base (Radian, 1992a).

2.4 Current and Future Land Use

Land use surrounding Holloman AFB consists of residential areas to the east and northeast (Alamogordo), rangeland to the south, the White Sands National Monument to the west, and military activities to the north. The desert terrain of the area surrounding Holloman AFB has limited development in the immediate vicinity. There are no agricultural operations, residential communities, or large industrial operations located adjacent to the Base.

Holloman AFB is an active military installation and is expected to remain active for the foreseeable future. No transfer of military property to the public domain is anticipated. Public access to the Base is restricted.

Residential development on Base is limited by environmental and operational constraints that include the 100-year floodplain, historic sites, and areas identified under the IRP. Safety and noise zones also limit residential development on Base. Future plans for residential development on Base include renovation of existing structure, replacement of inefficient buildings, and expansion into open areas in the southeast corner of the Base (reference "Horizons 2000 Facility Improvement Plan II," 1987). Future land use is not expected to differ significantly from current land use practices.

2.5 Hydrogeology

Both surface water and groundwater contribute to the hydrological setting at Holloman AFB.

2.5.1 Surface Water

Since the Tularosa Basin is a closed basin with no surface water outlet, water is lost to evaporation, transpiration, and infiltration, or collects in Lake Lucero, the lowest point in the basin, approximately 20 miles southwest of Holloman AFB.

The Base is crossed by several southwest-trending arroyos that control surface drainage in the undeveloped part of the Base (see Figure 2-2). These arroyos consist of Hay Draw, in the far northern part of the Base; Malone Draw and Ritas Draw, which drain into Lost River; and Dillard Draw to the east, which runs in a southwesterly direction along the eastern and southern boundaries of the Base. Lost River, the largest arroyo, is dammed near the western boundary of the Base. Runoff from Lost River, Malone Draw, and Ritas Draw collects in the dammed area. Drainage within the developed portions of the Base flows through ditches and culverts to various outfall areas.

The wastewater treatment system at Holloman AFB consists of seven aeration/ evaporation lagoons. Southwest of these lagoons, a natural playa lake known as Lake Holloman receives some runoff from the Base as well as effluent from the sewage lagoons. A dam/dike has been constructed across the southern quarter of Lake Holloman. Seepage through and overflow of the dam filled an existing small playa lake known as Lake Stinky.

2.5.2 Groundwater

To understand the effects of groundwater on the environmental setting, groundwater flow and groundwater quality must be understood.

Groundwater Flow

Groundwater occurs under unconfined conditions in the unconsolidated bolson deposits

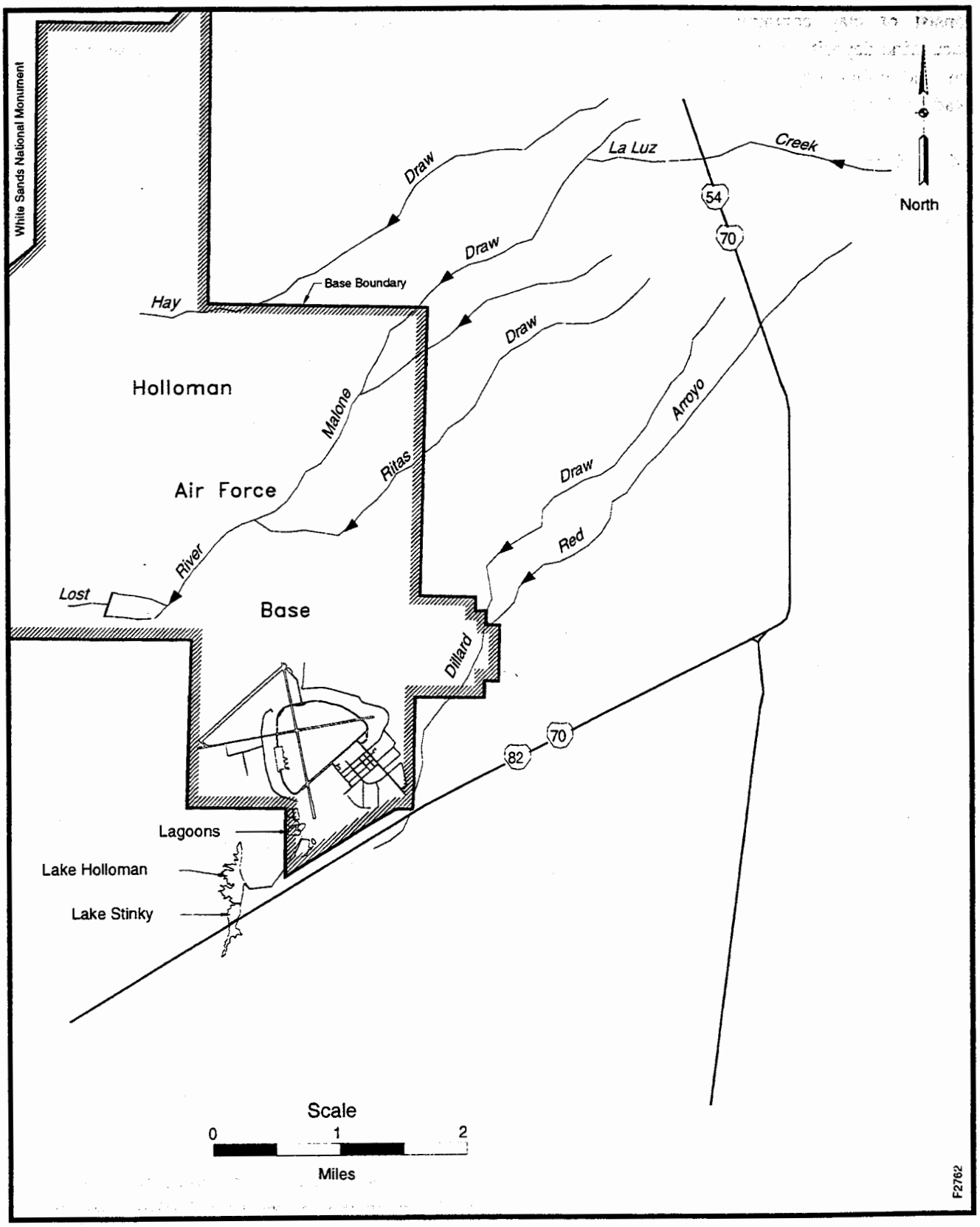


Figure 2-2. Surface Drainages at Holloman AFB

beneath Holloman AFB. The primary source of recharge for groundwater in the bolson aquifer is percolation of rainfall and stream runoff through the coarse, unconsolidated alluvial fan deposits along the western flank of the Sacramento Mountains. Water migrates downward into the bolson fill aquifer and flows downgradient through progressively finer grained sediments into the basin. Beneath Holloman AFB the depth to groundwater ranges from less than 5 ft to nearly 50 ft below ground level (BGL) .

A Base-wide synchronous water-level survey was conducted in March 1993. A potentiometric surface map of the aquifer is shown in Plate 1. In the vicinity of Holloman AFB, groundwater generally flows toward the west and southwest, following surface topography. Local groundwater flow direction, however, is influenced by the arroyos that drain the Base. In the southeastern portion of the Base, regional groundwater flows southwest, toward the Dillard Draw surficial drainage system. In the northern and western portions of the Base, groundwater flows in a more westerly direction, toward the Ritas Draw, Malone Draw, and Lost River drainages. Localized effects occur in areas immediately adjacent to arroyos, where groundwater flows directly toward drainage regardless of regional flow patterns.

Groundwater Quality

Water quality in the Tularosa Basin is good near the recharge areas at the base of the mountains, but groundwater becomes progressively more mineralized as it flows downgradient toward the interior of the basin. This decrease in water quality can be attributed to slow groundwater migration from recharge to discharge areas, and the presence of readily soluble minerals in the bolson sediments.

On the basis of New Mexico Water Quality Control Commission Regulations (NM WQCC 82-1, as amended through August 18, 1991, Parts 3-100 through 3-103), the groundwater beneath Holloman AFB is designated as unfit for human consumption because it exceeds New Mexico human health standards (HHSs) for total dissolved solids (TDS) and sulfate.

According to the EPA document *Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy* (EPA, 1986), the groundwater beneath Holloman AFB can be classified as III B. Class III groundwater is characterized by having a TDS concentration greater than 10,000 mg/L, and is not considered a source or a potential source of drinking water. Class III B groundwater is characterized by a low degree of interconnection to adjacent surface waters or groundwater of a higher class. Because the Tularosa Basin is a closed basin, its groundwater does not discharge or connect to any adjacent aquifers. Adjacent surface waters include Lost River and Lake Holloman, which also have high concentrations of TDS and thus are not potential drinking water sources.

2.6 Current and Future Water Use

At present, the primary fresh water resource for the City of Alamogordo is Lake Bonita, 60 miles northeast of the Tularosa Basin. Currently, there are no potable supplies of ground or surface water located on Base. Holloman AFB obtains its water supply from the City of Alamogordo and the Holloman AFB wells in Boles, San Andres, and Douglas well fields at the base of the Sacramento Mountains. No water supply wells are located on or near the Base because of poor groundwater quality. The nearest production well downgradient of Holloman AFB is a livestock well located 3.5 miles west of the Base (Computrac, Inc., 1986). No other downgradient or near-Base potable or irrigation wells exist.

Section 3
DATA QUALITY OBJECTIVES AND EVALUATION CRITERIA

This section presents the DQOs for the project, the trigger criteria used in data evaluation, and the decision-making processes for the Phase I and Phase II SWMUs.

3.1 Data Quality Objectives

To ensure that the goals of this investigation were met, DQOs were developed for data collection and data interpretation activities. DQOs are a statement of the "quality" of data required to meet project objectives. DQOs include detailed specifications of the following:

- The types of data required to make a decision;
- The quantity of data required to make a decision; and
- The measurement objectives for each type of data collected.

DQOs are established to ensure that sufficient data are available for decision makers to resolve project objectives. The preliminary decision makers for this project are Holloman AFB Environmental Flight personnel, Headquarters-Air Combat Command (HQ-ACC personnel, and U.S. Army Corps of Engineers (USACE)-Omaha District personnel. The final decision maker for the RCRA corrective action program is EPA Region VI, and for the IRP is the New Mexico Environment Department (NMED).

The primary objectives of the investigation are as follows:

- Determine whether a release requiring further evaluation has occurred at any of the Phase I SWMUs; and
- Define the nature and extent of waste constituents at Phase II SWMUs, and quantify the risks associated with these compounds.

The primary decisions associated with these objectives are to decide whether remediation is required to protect human health and the environment, and to recommend NFA or further evaluation for each of the SWMUs.

To meet the objectives of the investigation and to resolve the primary decision, a variety of types of data were collected during the field investigation. The DQOs, types of data collected, data collection procedures, and QA program for validating the data are described in detail in the *Work Plan* (Radian, 1993). The DQOs presented in the *Work Plan* are not complete for any forthcoming phases of investigative or remedial activity. As more information about the SWMUs is gathered, and as project objectives are refined, DQOs will need to be updated iteratively for each new activity.

3.2 Data Evaluation Criteria

To determine presence or absence and significance of any release from the SWMUs, analytical results were compared with trigger criteria, and decisions were made using decision trees for the Phase I and Phase II investigations. Trigger criteria and other data evaluation criteria, such as data validation results and risk assessment results, are discussed in this section.

3.2.1 Data Validation Conclusions

Data were validated according to the requirements specified in the *Quality Assurance Project Plan*, (Radian, 1993). The *Draft Informal Technical Information Report (ITIR)* (Radian,

1994) presents a complete description of the QA program implemented for this investigation, including the results of QC analyses, data validation procedures, results of data validation including potential data limitations, and results for all laboratory analyses performed.

Overall, the QC data associated with this investigation indicate that chemical measurement data are acceptable. An independent review found the data to be reliable, defensible, and usable for the purposes of the project. The majority of the QC results associated with the Holloman Table 2 program were within the specifications outlined in the *QAPP*, (Radian, 1993). Overall data completeness for this project was calculated at 99 percent. Results of the data validation show that project objectives have been met.

When interpreting data, the following potential limitations should be considered:

Soil Samples

- Chromium was detected in the following samples and may be biased high due to blank contamination: 179-A04-01-01, 179-A04-02-01, 179-A02-02-01, 179-A03-01-01, and 179-A03-02-01. These results affect 5 of 216 samples. No other samples were affected.

- Matrix spike (MS) results indicate that antimony concentrations in soil may be biased low by 40 percent.

- MS results indicate that barium concentrations in soil samples at SWMUs 2, 15, 40, 71, and 156 may be biased high by 50 percent.

- Four MS samples associated with sample 138-A01-01-01 were below acceptance criteria, which indicates that the chromium results for this sample may be biased slightly low.

- Concentrations of mercury in the following samples may be biased high due to blank contamination: AOC-U-A03-01-01, AOC-U-A03-02-01, AOC-U-A04-02-01, and 156-B05-01-01. These results affect 4 of 171 samples.

- MS results indicate that mercury concentrations associated with sample 036-U01-01-01 results may be biased 80% low, and that those associated with sample 138-A01-01-01 may be biased high by 25 percent.

- All of the results for kepone in soil samples should be considered biased low or potentially false negatives. However, impacts on conclusions drawn from the data for SWMUs where this analyte might be suspected should not be affected, since a release would be expected to also contain other target analytes, triggering further scrutiny of the SWMU.

- Laboratory control sample (LCS) results indicate that demeton O, demeton S, and disulfoton could be present in field samples and not detected. However, impacts on conclusions drawn from the data for SWMUs where these analytes might be suspected should not be affected, since a release would be expected to also contain other target analytes, triggering further scrutiny of the SWMU.

- Diethylphthalate was detected in all of the equipment blank samples analyzed on 11 November 1993 but not in the method blank. All of the field samples collected from SWMUs 40, 56, 126, and 136 may

have elevated levels of diethylphthalate from field cross-contamination.

Groundwater samples

- The zinc reported in sample WRA-W02-010-01 may be due to laboratory contamination.

- Toluene was detected in the equipment blank at the same level as was detected in the groundwater samples. Xylenes were detected in the equipment blank above the concentrations detected in groundwater samples. Groundwater results for toluene and xylenes may be due to field cross-contamination.

Biota Samples

- MS results suggest that cadmium and lead concentrations in the plant samples may be biased low.

3.2.2 Trigger Criteria

Analytical results were compared with various trigger criteria to provide an indication of whether a release has occurred from a SWMU, and if so, if the release is likely to require further evaluation to determine the nature and extent of contamination or to quantify potential risks. Trigger criteria for this investigation included the following: Proposed RCRA Subpart S action levels and the Base-specific standard for TRPH approved by NMED and New Mexico Water Quality Regulations. Each of these trigger criteria is discussed briefly below, and trigger criteria for specific analytes are presented in Table 3-1.

Proposed RCRA Subpart S Action Levels were used to provide an indication of whether detected constituents were at concentrations potentially requiring further evaluation. Action levels are reasonable levels below which corrective action is unlikely to be necessary. They are not cleanup standards. Proposed RCRA Subpart S action levels are discussed in more detail in Appendix A.

The Base-specific TRPH standard of 1000 mg/kg is the trigger concentration for TRPH. Currently, soil containing greater than 1000 mg/kg TRPH requires remediation.

New Mexico Standards for Groundwater (NMWACC 82-1, as amended through 8/18/94, Part 3-103) were used as an indication of whether constituents detected in groundwater were at concentrations potentially requiring further evaluation.

3.2.3 Risk Assessment Overview

Risk assessment results were used to determine whether any of the SWMUs pose a risk to human health or the environment, and thus require further evaluation. The first step was to determine the COPCs for each SWMU, which was done by running analytical results through a risk-based screen. The screen uses EPA Region III action levels, rather than proposed RCRA Subpart S action levels, because they are designed specifically for use in risk-based screens. The screen was used to determine COPCs and as a predictor of health risk estimates. In general, the presence of COPCs for a SWMU indicates the need for a closer look by a toxicologist and/or a quantitative risk assessment.

Following the determination of COPCs, a qualitative or quantitative risk and ecological assessments were performed for each SWMU. Most of the Phase I SWMUs received qualitative risk assessments, which entailed identifying potential exposure pathways and both human and ecological receptors. The reasoning behind using qualitative risk assessments for the Phase I SWMUs was that the risk-based screen would provide an indication of whether there were potential health risks associated with the SWMU and, if so, a quantitative risk assessment could be

Table 3-1
Analyte-Specific Trigger Criteria

Analyte	Water	Soil
1,1,1-Trichloroethane	350 µg/L [a,i]	$8x10^5$ µg/kg [a,i]
1,1-Dichloroethane	3500 µg/L [b]	$8x10^6$ µg/kg [b]
1,1-Dichloroethene	0.58 µg/L [c]	$1.16x10^4$ µg/kg [c]
1,2-Dichlorobenzene	3150 µg/L [b]	7200 mg/kg [b]
1,3-Dichlorobenzene	3120 µg/L [b,i]	7100 mg/kg [b,i]
1,4-Dichlorobenzene	14.58 µg/L [c]	292 mg/kg [c]
2,4,5-T	350 µg/L [b]	$8x10^5$ µg/kg [c]
2,4,5-TP (Silvex)	280 µg/L [b]	$6.4x10^5$ µg/kg [b]
2,4-D	350 µg/L [b]	$8x10^5$ µg/kg [b]
2,4-DB	280 µg/L [b]	$6.4x10^5$ µg/kg [b]
2,4-Dimethylphenol	700 µg/L [b]	1600 mg/kg [b]
2-Hexanone	NS	NS
2-Methylnaphthalene	NS	NS
2-Methylphenol	1750 µg/L [b]	4000 mg/kg [b]
3-Methylphenol	1750 µg/L [b]	4000 mg/kg [b]
4,4'-DDD	0.14 µg/L [c]	2917 µg/kg [c]
4,4'-DDE	0.10 µg/L [c]	2059 µg/kg [c]
4,4'-DDT	0.10 µg/L [c]	2059 µg/kg [c]
4-Chloro-3-methylphenol	NS	NS
4-Methyl-2-pentanone (MIBK)	1750 µg/L [b]	$4x10^6$ µg/kg [b]
4-Methylphenol	175 µg/L [b]	400 mg/kg [b]
Acenaphthene	2100 µg/L [b]	4800 mg/kg [b]
Acenaphthylene	NS	NS
Acetone	3500 µg/L [b]	$8x10^6$ µg/kg [b]
Acetophenone	3500 µg/L [b]	8000 mg/kg [b]
Aldrin	0.002 µg/L [c]	41.17 µg/kg [c]
Aluminum	101000 µg/l [b,i]	232000 mg/kg [b,i]
Aniline	6.14 µg/L [c]	123 mg/kg [c]
Anthracene	$1.05x10^4$ µg/L [b]	$2.4x10^4$ mg/kg [b]
Antimony	0.014 mg/L [b]	32 mg/kg [b]
Aramite	1.40 µg/L [c]	$2.8x10^4$ µg/kg [c]
Arsenic	0.011 mg/L [b]	24 mg/kg [b]
Barium	2.45 mg/L [b]	5600 mg/kg [b]
Benzene	1.20 µg/L [c]	$2.4x10^4$ µg/kg [c]
Benzidine	$1.5x10^{-4}$ µg/L [c]	3.04 µg/kg [c]
Benzo(a)anthracene [d]	0.05 µg/L [c]	0.96 µg/kg [c]
Benzo(a)pyrene [d]	0.005 µg/L [c]	0.096 µg/kg [c]

Table 3-1 (Continued)

Analyte	Water	Soil
Benzo(b)fluoranthene [d]	0.05 µg/L [c]	0.96 µg/kg [c]
Benzo(g,h,i)perylene	NS	NS
Benzo(k)fluoranthene [d]	0.5 µg/L [c]	9.59 mg/kg [c]
Benzoic acid	$1.4x10^{5}$ µg/L [b]	$3.2x10^{8}$ µg/kg [b]
Benzyl alcohol	$1.05x10^{4}$ µg/L [b]	$2.4x10^{7}$ µg/kg [b]
Benzyl chloride	0.21 µg/L [c]	4118 µg/kg [c]
Beryllium	$8x10^{-6}$ mg/L [c]	0.16 µg/kg [c]
Bromochloromethane	NS	NS
Bromodichloromethane	0.58 µg/L [c]	$1.16x10^{4}$ µg/kg [c]
Bromoform	4.41 µg/L [c]	$8.82x10^{4}$ µg/kg [c]
Bromomethane	49 µg/L [b]	$1.12x10^{5}$ µg/kg [b]
Butylbenzylphthalate	7000 µg/L [b]	$1.6x10^{4}$ µg/kg [b]
Cadmium	0.018 mg/L [b]	80 µg/kg [b]
Carbon disulfide	3500 µg/L [b]	$8x10^{6}$ µg/kg [b]
Carbon tetrachloride	0.26 µg/L [c]	5384 µg/k[c]
Chlordane	0.03 µg/L [c]	540 µg/kg [c]
Chlordane, alpha	0.03 µg/L [c,h]	540 µg/kg [c,h]
Chlordane, gamma	0.03 µg/L [c,h]	540 µg/kg [c,h]
Chlorobenzene	700 µg/L [b]	1.6x10 µg/kg [b]
Chlorobenzilate	0.13 µg/L [c]	2592 µg/kg [c]
Chloroethane	14000 µg/L [b,i]	32000 mg/kg [b,i]
Chloroform	5.73 µg/L [c]	$1.1x10^{5}$ µg/kg [c]
Chloromethane	26.92 µg/L [c]	$5.4x10^{5}$ µg/kg [c]
Chlorpyrifos (Dursban)	$2.4x10^{5}$ µg/kg	NS
Chromium	35 mg/L [b]	$8x10^{4}$ mg/kg [b]
Chrysene [d]	4.79 µg/L [c]	96 mg/kg [c]
Copper	1.3 mg/L [b]	2960 mg/kg [b]
Coumaphos	NS	NS
Cyanide	0.70 mg/L [b]	1600 mg/kg [b]
Dalapon	1050 µg/L [b]	$2.4x10^{6}$ µg/kg [b]
Di-n-octylphthalate	700 µg/L [b]	1600 mg/kg [b]
Diallate	0.57 µg/L [c]	$1.14x10^{4}$ µg/kg [c]
Diazinon	31.50 µg/L [b]	$7.2x10^{4}$ µg/kg [b]
Dibenz(a,h)anthracene [d]	$5x10^{-3}$ µg/L [c]	0.09589 mg/kg [c]
Dibenzofuran	NS	NS
Dibromochloromethane	4.16 µg/L [c]	$8.3x10^{4}$ µg/kg [c]
Dibromomethane	NS	NS
Dibutylphthalate	3500 µg/L [b]	8000 mg/kg [b]

Table 3-1 (Continued)

Analyte	Water	Soil
Dicamba	1050 µg/L [b]	$2.4x10^{6}$ µg/kg [b]
Dichlorodifluoromethane	7000 µg/L [b]	$1.6x10^{7}$ µg/kg [b]
Dichloroprop	NS	NS
Dichlorvos	0.12 µg/L [c]	2414 µg/kg [c]
Dieldrin	0.002 µg/L [c]	43.75 µg/kg [c]
Diethylphthalate	$2.8x10^{4}$ µg/L [b]	$6.4x10^{4}$ mg/kg [b]
Dimethoate	7.00 µg/L [b]	$1.6x10^{4}$ µg/kg [b]
Dimethylphthalate	$3.5x10^{5}$ µg/L [b]	$8.0x10^{8}$ µg/kg [b]
Dinoseb	35 µg/L [b]	$8x10^{4}$ µg/kg [b]
Diphenylamine	875 µg/L [b]	$2.0x10^{6}$ µg/kg [b]
Disulfoton	1.40 µg/L [b]	3200 µg/kg [b]
Endosulfan I	1.8 µg/L [b,j]	4 b[b,j]
Endosulfan II	1.8 µg/L [b,j]	4 [b,j]
Endolsulfan aldehyde	1.8 µg/L [b,j]	4 [b,j]
Endrin	10.5 µg/L [b]	$2.4x10^{4}$ µg/kg [b]
Endrin aldehyde	10.5 µg/L [b,k]	$2.4x10^{4}$ µg/kg [b,k]
Ethanol	NS	NS
Ethoprop	NS	NS
Ethyl benzene	3500 µg/L [b]	$8x10^{6}$ µg/kg [b]
Fensulfothion	NS	NS
Fenthion	NS	NS
Fluoranthene	1400 µg/L [b]	3200 µg/kg [b]
Fluorene	1400 µg/L [b]	3200 mg/kg [b]
Heptachlor	0.008 µg/L [c]	156 µg/kg [c]
Heptachlor epoxide	0.004 µg/L [c]	76.92 µg/kg [c]
Hexachlorobenzene	0.02 µg/L [c]	437 µg/kg [c]
Hexachlorobutadiene	4.48 µg/L [c]	$1.6x10^{4}$ µg/kg [c]
Hexachlorocyclopentadiene	245 µg/L [b]	$5.6x10^{5}$ µg/kg [b]
Hexachloroethane	25 µg/L [c]	$8.0x10^{4}$ µg/kg [b]
Hexachlorophene	10.50 µg/L [b]	$2.4x10^{4}$ µg/kg [b]
Indeno(1,2,3-cd)pyrene [d]	0.05 µg/L [c]	0.96 mg/kg [c]
Iron	NS	NS
Isophorone	368 µg/L [c]	$7.4x10^{6}$ µg/kg [c]
Isopropanol	NS	NS
Lead	0.05 µg/L [e]	8500 µg/kg [e]
MCPA	17.5 µg/L [b]	$4x10^{4}$ µg/kg [b]
MCPP	NS	NS
Mercury	.011 mg/L [b]	24 mg/kg [b]

Table 3-1 (Continued)

Analyte	Water	Soil
Merphos B	NS	NS
Methanol	17.5 mg/L [b]	$4x10^{4}$ µg/kg [b]
Methoxychlor	175 µg/L [b]	$4x10^{5}$ µg/kg [b]
Methyl azinphos	NS	NS
Methyl ethyl ketone	$2.1x10^{4}$ µg/L [b]	$4.8x10^{7}$ µg/kg [b]
Methyl parathion	8.75 µg/L [b]	$2x10^{4}$ µg/kg [b]
Methylene chloride	4.66 µg/L [c]	$9.3x10^{4}$ µg/kg [c]
Mevinphos	NS	NS
Mirex	0.02 µg/L [c]	389 µg/kg [c]
N-Nitroso-di-n-propylamine	$5x10^{-3}$ µg/L [c]	0.1 mg/kg [c]
Naled	70 µg/L [b]	160 mg/kg [b]
Naphthalene	NS	NS
Nickel	0.7 mg/L [b]	1600 mg/kg [b]
Nitrobenzene	17.50 µg/L [b]	$4.0x10^{4}$ µg/kg [b]
PCBs (total)	NS	91 µg/kg
Pentachlorobenzene	28 µg/L [b]	$6.4x10^{4}$ µg/kg [b]
Pentachlorophenol	0.29 µg/L [c]	5833 µg/kg [c]
Phenanthrene	NS	NS
Phenol	$2.1x10^{4}$ µg/L [b]	$4.8x10^{4}$ µg/kg [b]
Phorate	7 µg/L [b]	$1.6x10^{4}$ µg/kg [b]
Pronamide	2625 µg/L [b]	$6.0x10^{6}$ µg/kg [b]
Pyrene	1050 µg/L [b]	2400 µg/kg [b]
Pyridine	35 µg/L [b]	$8.0x10^{4}$ µg/kg [b]
Ronnel	1750 µg/L [b]	$4.0x10^{6}$ µg/kg [b]
Selenium	0.175 µg/L [b]	400 µg/kg [b]
Silver	0.175 µg/L [b]	400 µg/kg [b]
Styrene	7000 µg/L [b]	$1.6x10^{7}$ µg/kg [b]
Sulfide	NS	NS
Sulprofos (Bolstar)	NS	NS
Tetrachloroethene	6.73 µg/L [c]	$1.34x10^{5}$ µg/kg [c]
Tetrachlorvinphos	14.58 µg/L [c]	$2.9x10^{5}$ µg/kg [c]
Thallium	NS	NS
Toluene	7000 µg/L [b]	$1.6x10^{7}$ µg/kg [b]

Table 3-1 (Continued)

Analyte	Water	Soil
Total Recoverable Petroleum Hydrocarbons (TRPH)	NS	1000 mg/kg [e]
Toxaphene	0.03 µg/L [c]	636 µg/kg [c]
Trichloroethene	320 µg/L [c,i]	64 mg/kg [c,i]
Trichlorofluoromethane	1.05×10^{4} µg/L [b]	2.4×10^{7} µg/kg [b]
Vanadium	0.25 µg/L [b]	560 µg/kg [b]
Vinyl chloride	0.018 µg/L [c]	368 µg/kg [c]
Vinyl acetate	3.5×10^{4} µg/L [b]	8.0×10^{7} µg/kg [b]
Xylene (total)	7×10^{4} µg/L [b]	1.6×10^{8} µg/kg [b]
Zinc	10.5 µg/L [b]	2.4×10^{4} µg/kg [b]
alpha-BHC	0.006 µg/L [c]	111 µg/kg [c]
bis(2-Chloroethoxy)methane	NS	NS
bis(2-Ethylhexyl)phthalate	2.5 µg/L [c]	50 µg/kg [c]
delta-BHC	NS	NS
gamma-BHC	0.027 µg/L [c]	538 µg/kg [c]
p-Chloroaniline	140 µg/L [b]	320 mg/kg [b]
trans-1,2-Dichloroethene	700 µg/L [b]	1.6×10^{6} µg/kg [b]
trans-1,3-Dichloropropene	0.19 µg/L [c]	3889 µg/kg [c]

Note: Unless otherwise noted, reference doses (RfDs) or slope factors (SFs) used to calculate HBL are from the Electronic Handbook of Risk Assessment Values, which lists values from both IRIS and HEAST.

NS = Not specified, no trigger criteria for this compound.

[a] The oral RfD for 1,1,1-trichloroethane has been withdrawn from IRIS and HEAST. These numbers are based on the withdrawn value.

[b] Noncarcinogenic.

[c] Carcinogenic.

[d] SF used in calculation of HBL derived by the potential potency method presented in *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons*. EPA Office of Research and Development, Washington, D.C. EPA/600/R-93/089. July 1993.

[e] New Mexico standard.

[f] Base-specific TRPH standard, approved by NMED.

[g] The SF for trichloroethene has been withdrawn. These numbers are based on the withdrawn value obtained from the Superfund Technical Support Cener.

[h] Chlordane values used as proxies.

[i] Toxicity values from EPA Region 3 "Risk-based Concentration Table, Second Quarter 1994."

[j] Endosulfan values used as proxies.

[k] Endrin values used as proxies.

done as part of a Phase II investigation (if necessary). The qualitative risk assessments are presented in the SWMU-specific write-ups in section 4. Quantitative human health risk assessments were performed for all Phase II SWMUs except for SWMUs 165/177/179/181, at which only a quantitative ecological assessment was performed. All Phase II SWMUs had existing Phase I risk assessments. Where possible, the existing risk assessments were updated; additional pathways were assessed as necessary. A quantitative risk assessment was conducted for two Phase I SWMU groups (SWMU 164 and SWMUs 21/22/123 and 54/55). SWMU 164 was considered the Phase I SWMU most likely to require a CMS because it was the site of a recent fuel spill. SWMUs 21/22/123 and 54/55 are part of IRP Site 47. These SWMUs received a quantitative risk assessment as part of an update to the previous quantitative risk assessment conducted by Walk, Haydel and Associates, Inc. (1989) at Site 47. The results of the quantitative risk and ecological assessments are presented in Appendix C of this report. A summary of quantitative risk assessment results is also provided in each of the SWMU-specific sections.

3.3 Decision Trees

To interpret data, draw conclusions, and make recommendations in a consistent manner for every SWMU, the comparison of results with trigger criteria and other decisions were organized into Phase I and Phase II investigation decision trees, shown in Figures 3-1 and 3-2. In general, trigger criteria were used to determine whether constituent concentrations at a SWMU were at levels potentially requiring further consideration. Trigger criteria included both health-based levels and the Base-specific standard for TRPH. If constituents were present at a SWMU at concentrations exceeding health-based levels, the SWMU was recommended for further evaluation to determine whether additional risk assessment, CNFA, interim measures, or a CMS is needed. If TRPH concentrations exceeded the Base-specific standard, even if none of the constituents exceeded health-based levels, the TRPH-contaminated soil requires remediation. If none of the trigger criteria was exceeded, NFA was recommended for the SWMU.

On the basis of the decisions made using the trigger criteria, one of three possible recommendations was made for each SWMU. These recommendations are discussed below.

NFA was recommended for SWMUs where detected analytes did not exceed trigger criteria, and therefore there has been no significant release from the SWMU.

CNFA was recommended for SWMUs where TRPH concentrations exceeded the Base-specific standard for TRPH. The condition of NFA for these SWMUs is the remediation of TRPH-contaminated soil and, as appropriate, removal of separators and tanks.

Further evaluation was recommended for SWMUs where constituent concentrations exceeded health-based levels. Further evaluation may include further risk assessment, CNFA, interim measures, and/or a CMS, as appropriate for each individual SWMU.

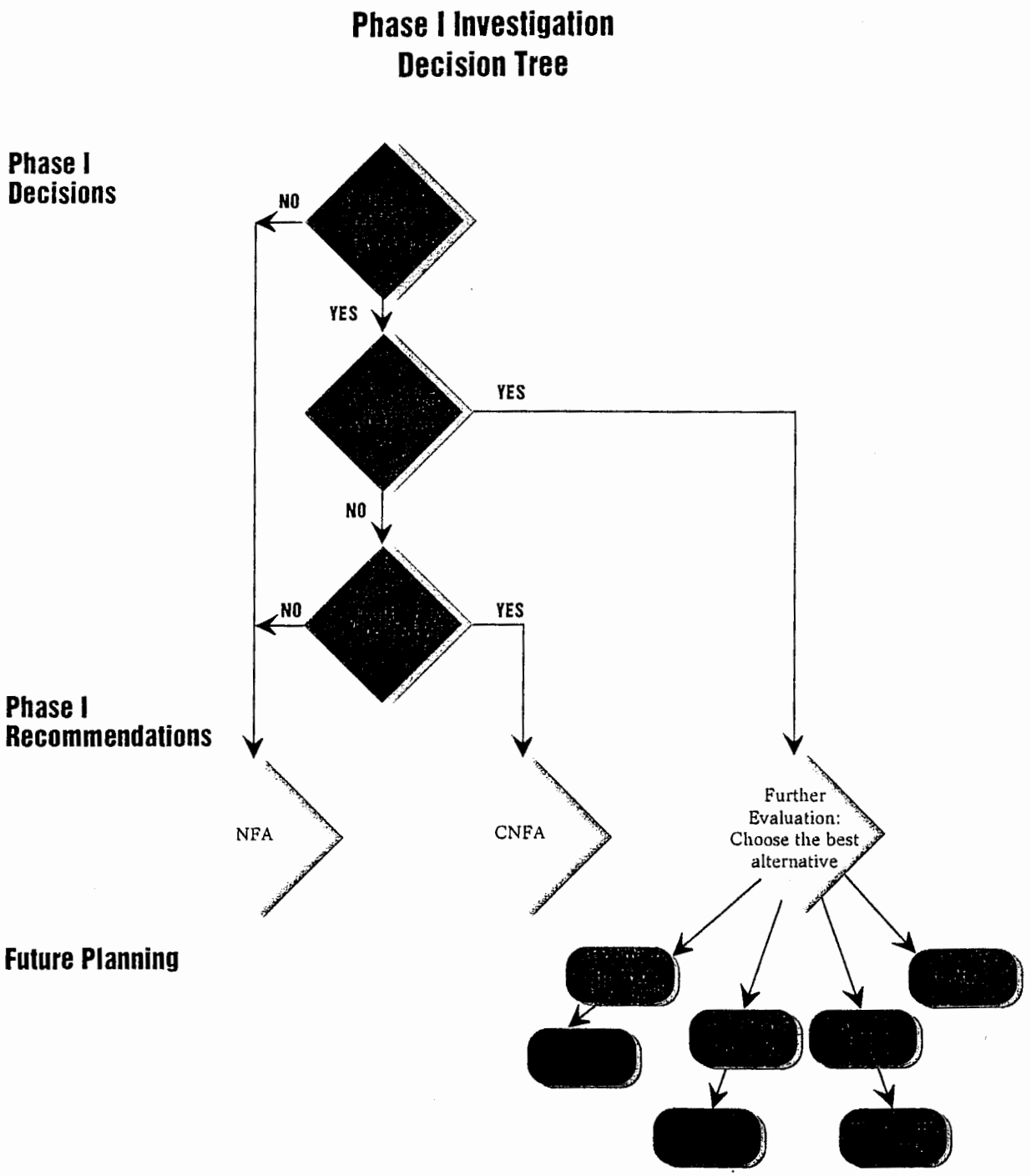


Figure 3-1. Flowchart

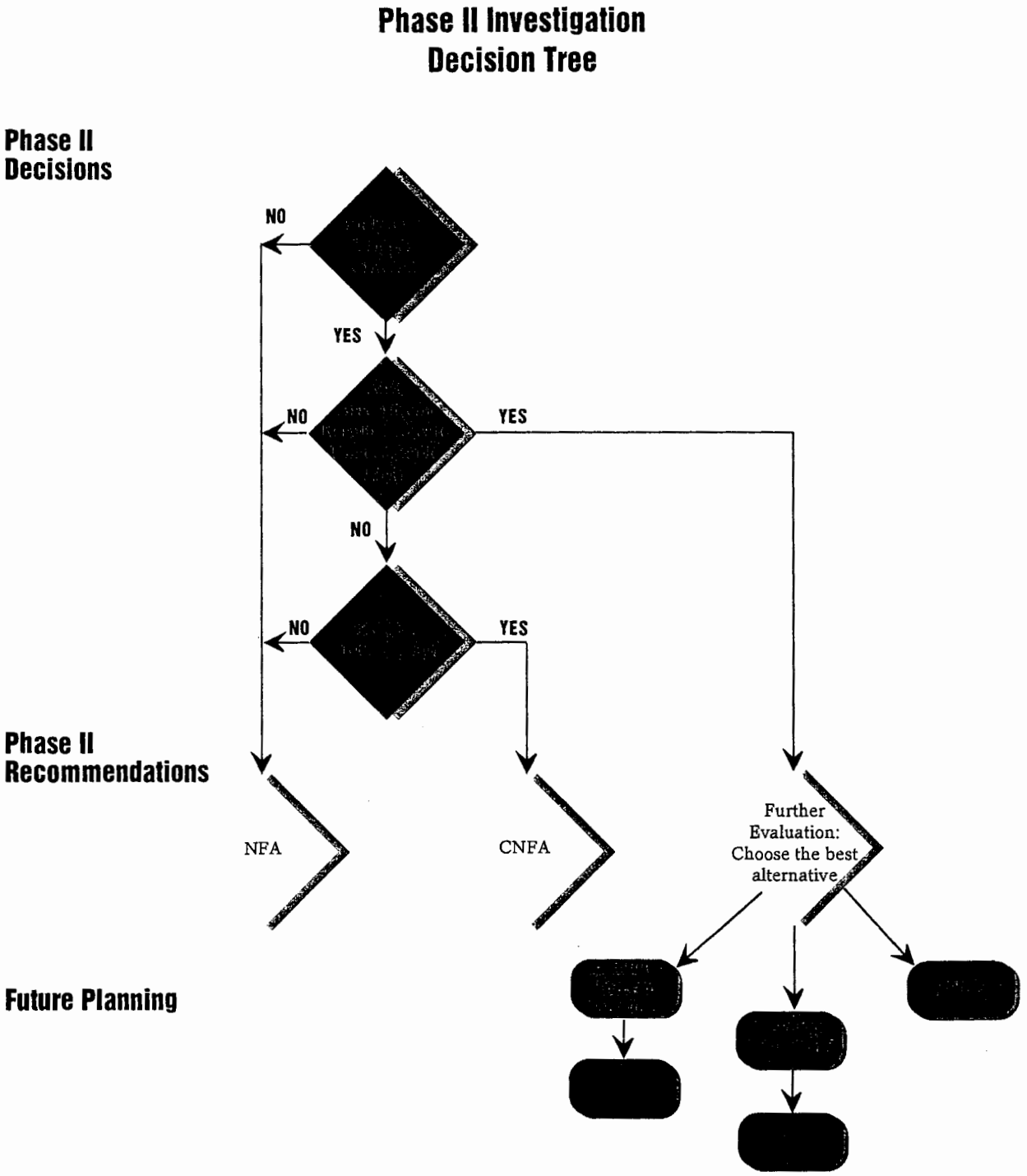


Figure 3-2. Flowchart

6-94-37134

[This page intentionally left blank.]

Section 4
PHASE I INVESTIGATION RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

This section contains the results, conclusions, and recommendations for each of the Phase I SWMUs investigated. Sections 4.1 through 4.21 contain SWMU-specific discussions of the following:

- Executive summary for the SWMU or SWMU group;
- SWMU features and history, including a SWMU figure (sources of information include the *RCRA Facility Assessment* [A.T. Kearney, 1988], and the literature search and field notes for this project);
- Summary of investigation;
- Geology and hydrogeology;
- Analytical results, including summary analytical data tables;
- Risk assessment results; and
- Conclusions and recommendations.

The Phase I SWMUs discussed in this section are listed in Table 4-1, and their locations are shown in Figure 4-1. Table 4-1 also lists the nature of the suspected release, the constituents detected above trigger criteria, the risk-based screen COPCs, and the recommendation for each SWMU group. Trigger criteria, COPCs, and the decision-making process used to determine recommendations are discussed in detail in Section 3.

Table 4-1
Phase I Investigation Summary

SWMU	SWMU Description	Nature of Suspected Release	Analytes > Trigger Criteria	Risk-based Screen COPCs[a]	Risk Assessment Results	Recommendations
2 119	Bldg. 121 Oil/Water Separator Bldg. 121 Waste Oil Tank	Leak	None	None	Qual	NFA
15 120	Bldg. 309 Oil/Water Separator Bldg. 309 Waste Oil Tank	Leak	None	None	Qual	NFA
17 121	Bldg. 316 Oil/Water Separator Bldg. 316 Waste Oil Tank	Leak	None	None	Qual	NFA
21 22 123	Bldg. 702 Oil/Water Separator Bldg. 704 Oil/Water Separator Bldg. 704 Waste Oil Tank	Leak	Benzene, TRPH	Surface soil: none; subsurface soil: 1,1-dichloroethene, benzene; groundwater[b]: arsenic, benzene, beryllium, ethylbenzene, tetrachloroethene	Acceptable risk	CNFA/NFA[c]
32 125	Bldg. 868 Oil\Water Spearator Bldg. 868 Fire Water Tank	Leak	None	None	Qual	NFA
36 126	Bldg. 1001 Oil/Water Separator Bldg. 1001 Waste Oil Tank	Leak	TRPH	None	Qual	CNFA
39 127 135	Bldg. 1092 Oil/Water Separator Bldg. 1092 Waste Oil Tank Oil/Water Separator Drainage Pit	Leak	TRPH	No risk-based screen, pending further investigation	Qual	Phase II investigation
40 128 138	Bldg. 1166 Oil/Water Separator Bldg. 1166 Waste Oil Tank Oil/Water Separator Drainage Pit	Leak	TRPH	None	Qual	CNFA
54 55	Bldg. 702 Waste Accumulation Area Bldg. 702A Waste Accumulation Area	Waste oil spills	TRPH	Surface soil: none; subsurface soil: 1,1-dichloroethene, benzene; groundwater[b]: arsenic, benzene, beryllium, ethylbenzene, tetrachloroethene	Acceptable risk	NFA
56	Bldg. 807 Waste Accumulation Area	Waste oil and solvent spills	None	None	Qual	NFA
63	Bldg. 867 Waste Accumulation Area	Waste oil and solvent spills	None	None	Qual	NFA
71	Bldg. 1178A Waste Accumulation Area	Waste oil and solvent spills	None	None	Qual	NFA
78	Trim Pad 3 Waste Accumulation Area	Waste oil and hydraulic fluid	None	None	Qual	NFA
91	Bldg. 816 Washrack	Contaminated rinsewater	None	None	Qual	NFA
124	Bldg. 752 Waste Oil Tank	Leak	None	None	Qual	NFA
136	Bldg. 1119 Washrack Drainage Area	Contaminated rinsewater	TRPH	None	Qual	CNFA

Table 4-1 (Continued)

SWMU	SWMU Description	Nature of Suspected Release	Analytes > Trigger Criteria	Risk-based Screen COPCs[a]	Risk Assessment Results	Recommendations
155	Sludge Drying Beds	Sewage sludge	None	Beryllium	Qual	NFA
156	Imhoff Tanks	Sewage sludge	None	Beryllium	Qual	NFA
164	Bldg. 1080 Pond	Flightline runoff and fuel spill	None	Arsenic, barium, cadmium, chromium[c]	Acceptable risk	NFA
183	Air Base Sewer System	Sewer line leaks	NA[d]	NA[d]	NA[d]	Phase II investigation
AOC-U	Lost River Basin	Runoff from IRP sites, SWMUs, and storage areas	None	None	Qual	NFA

NFA = No further action.
CNFA = Conditional no further action.
Qual = Qualitative, rather than quantitative risk assessment done for this SWMU. Qualitative results for each SWMU are presented in Section 4.
NA = Not applicable.
[a] Risk-based screen COPCs are for ingestion unless otherwise noted.
[b] Groundwater data collected during previous investigation.
[c] Risk-based screen COPCs for inhalation.
[d] No chemical analyses or risk assessment activities were preformed in this phase of the investigation.
[e] CNFA is recommended for SWMU 123; NFA is recommended for SWMUs 21 and 22.

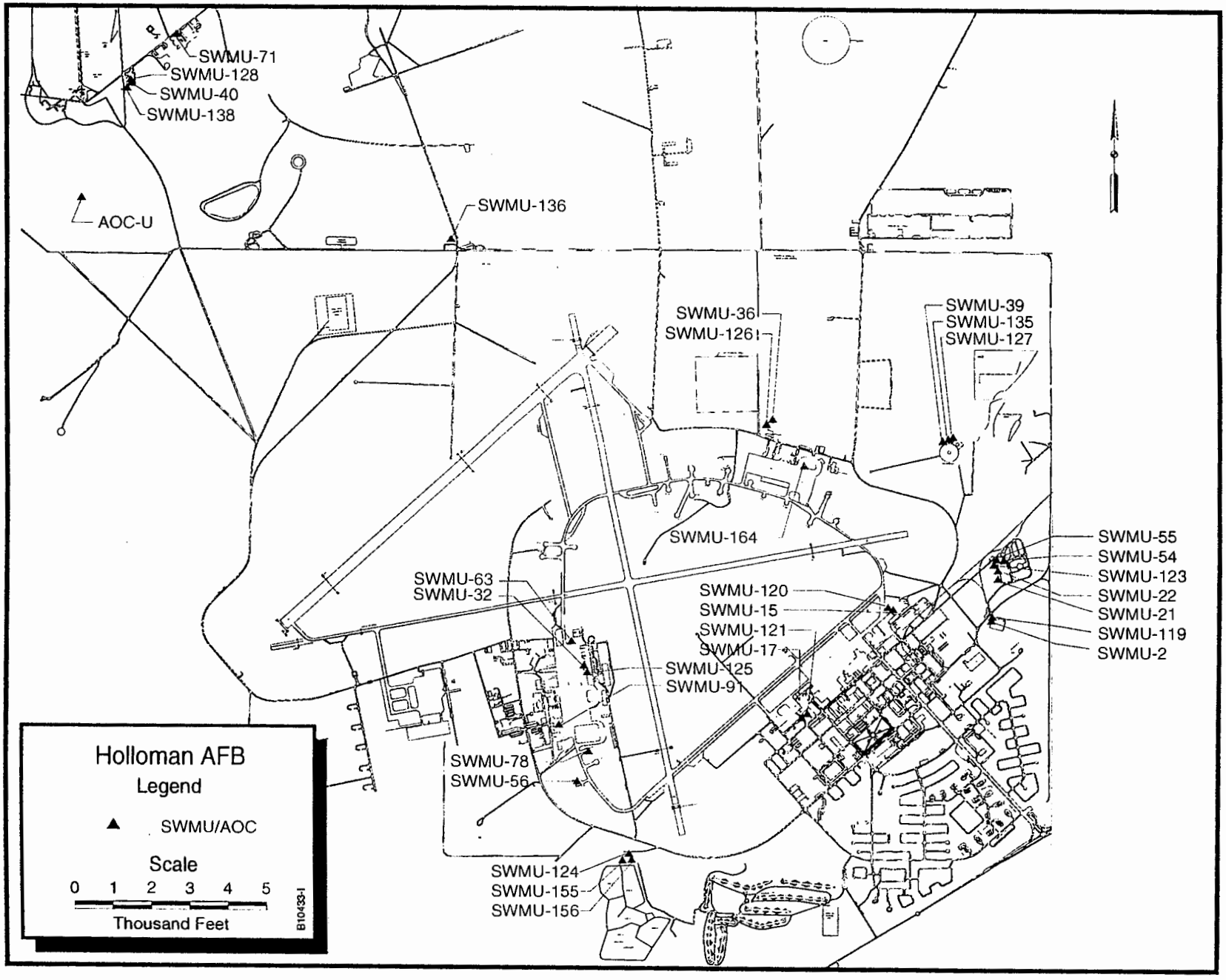


Figure 4-1. Phase I SWMU Locations at Holloman AFB, New Mexico

4.1 SWMU 119—Building 121 Waste Oil Tank
SWMU 2—Building 121 Oil/Water Separator

SWMUs 119 and 2 are on Table 2 of Holloman AFB's HSWA permit. These SWMUs have been in operation since 1984. Although a halon vapor monitoring system has shown evidence of leakage from the SWMUs, no previous investigation has been conducted. For this investigation, four borings were drilled in the potentially affected area immediately surrounding the SWMUs. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU. The halon vapor monitoring system data was submitted in the approved RFI Work Plan.

Only one exposure pathway (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human health or the environment. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for the SWMUs; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.1.1 SWMU Description

Physical Features—As shown in Figure 4.1-1, SWMUs 119 and 2 are located approximately 100 ft north of Building 121. The top of the oil/water separator is at ground level

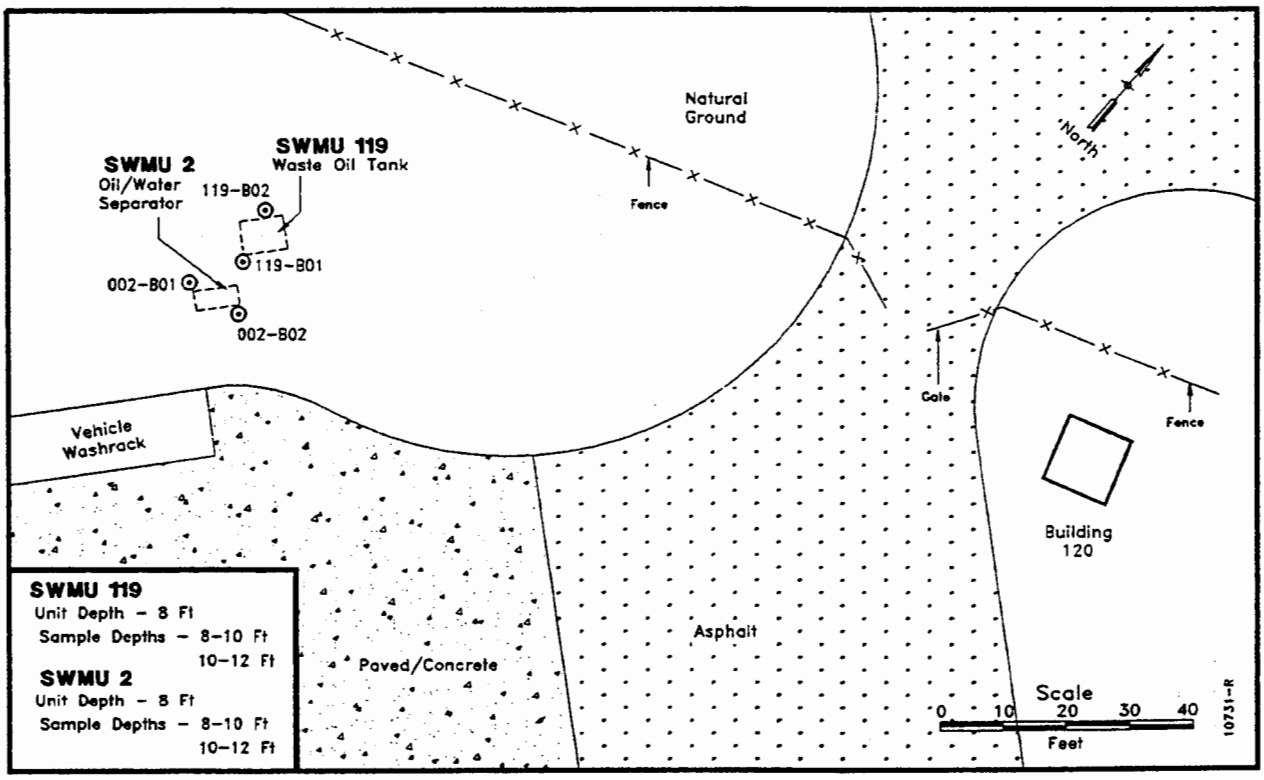


Figure 4.1-1. SWMUs 119 and 2 Features and Sampling Locations

and is covered with gravel. The waste oil tank lies below grade and is also covered with gravel. The depths to the base of the units is 8 ft bgl.

Unit Description—The waste oil tank (SWMU 119) has a capacity of 200 gal. Its construction material is unknown. The oil/water separator (SWMU 2) has a capacity of 300 gal. and is constructed of steel. The units were installed in 1984 and were operated until 1993.

Waste Description—Rinsate and waste oils from the nearby vehicle washrack were routed to the oil/water separator. The waste oil skimmed from the water in the oil/water separator was transferred by gravity flow to the waste oil tank via a subsurface pipe.

Release History—A vapor monitoring system installed to monitor the tank's integrity has shown evidence of past leakage. No previous investigation has been conducted at the SWMUs and no information concerning spills is available.

4.1.2 Site Investigation and Results

Four soil borings were drilled at the site, two at each SWMU, as shown in Figure 4.1-1. Split spoon samples were collected every 2 ft to 12 ft bgl (4 ft below unit). Each interval was logged and screened using an organic vapor meter (OVM). Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the intervals at the base of the units (8-10 ft bgl) and 4 ft below the base of the units (10-12 ft bgl). A soil sample for geotechnical analysis was collected from one boring. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 119 and 2 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and clay. Silt and sandy silt lenses, ranging in thickness from 1 to 2 ft, are interbedded with the sand and clay in three of the four site borings. This stratigraphy is typical of the alluvial, eolian, and playa deposits in the Tularosa Basin.

Groundwater occurs in silty clay in a shallow unconfined aquifer approximately 9.5 ft bgl. Groundwater in this part of the Base generally flows to the south-southeast.

Analytical Results

All samples were analyzed for volatile organic compounds and metals. Samples from boring 002-B02 and both SWMU 119 borings were also analyzed for TRPH. As required by the *Work Plan* (Radian, 1993), samples from boring 002-B01 were analyzed for semivolatile organic compounds because they were visibly contaminated. Tables 4.1-1 and 4.1-2 summarize the analytical results for SWMUs 119 and 2, respectively.

Several volatile and semivolatile organic compounds were detected at concentrations at or below detection limits or were detected at similar concentrations in associated method blanks, so their presence in the samples is uncertain. Ethyl benzene, methylene chloride, toluene, and xylenes were detected at parts per billion (ppb) levels in the samples, but all concentrations were below risk-based trigger criteria. 2-Methylnaphthalene, acenaphthene, butylbenzyl-phthalate, dibenzo-furan, fluoranthene, fluorene, naphthalene, and phenanthrene were detected at ppm levels in samples from Boring 002-B01, but all concentrations were also below risk-based trigger criteria.

Table 4.1-1
Analytical Results for Soil Samples—SWMU 119

Location ID	119-B01				119-B02			
Sample ID	119-B01-01-01		119-B01-02-01		119-B02-01-01		119-B02-02-01	
Beg. Depth-End Depth (ft)	8 - 10		10 - 12		8 - 10		10 -12	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)								
Hydrocarbons [1000]	< DL	(32.6)	< DL	(33.1)	< DL	(32.7)	< DL	(33.5)
SW8240 - Volatile Organics (µg/kg)								
Acetone [$8x10^6$]	34.6 B	(1.65)	35.2 B	(1.69)	12.5 B	(1.66)	17.7 B	(1.7)
Methyl ethyl ketone [$4x10^6$]	7.28 B	(1.68)	7.36 B	(1.71)	12.8 B	(1.69)	12.4 B	(1.73)
Methylene Chloride [$9.3x10^4$]	5.21	(2.88)	4.69	(2.94)	2.2 J	(2.89)	3.86	(2.96)
SW6010 - Metals (mg/kg)								
Barium [84, 5600]	125	(0.0501)	35.3	(0.0488)	57	(0.0587)	31.2	(0.0558)
Cadmium [1.0, 80]	0.511	(0.248)	0.27	(0.242)	< DL	(0.291)	< DL	(0.276)
Chromium [6.6, $8x10^4$]	21.3	(0.236)	6.59	(0.23)	14	(0.277)	5.14	(0.263)
SW7060 - Arsenic (mg/kg)								
Arsenic [6.9, 24]	0.421	(0.308)	< DL	(0.299)	2.75	(0.298)	4.63	(0.266)
SW7421 - Lead (mg/kg)								
Lead [12.3, 80]	1.53 S	(0.213)	0.281 S	(0.22)	0.64 SX	(0.213)	0.2 S	(0.2)
SW7471 - Mercury (mg/kg)								
Mercury [NS, 24]	< DL	(0.0156)	0.0263	(0.0158)	< DL	(0.0158)	< DL	(0.016)
SW7740 - Selenium (mg/kg)								
Selenium [10.5, 400]	4.1S B	(0.275)	3.73 SB	(0.267)	5.94 SB	(0.266)	26.4 SB	(0.238)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte also detected in associated blank analyses.
DL = Detection limit.
J = Analyte detected at concentration below the detection limit.
NS = Not specified.
S = Analyte concentration obtained using MSA.

Table 4.1-2
Results of Analyses for Soil Samples—SWMU 2

Location ID		002-B01		002-B01		002-B02		002-B02	
Sample ID		002-B01-01-01		002-B01-02-01		002-B02-01-01		002-B02-02-01	
Sample Interval (ft)		7.5 - 9.5		9.5 - 11.5		8 - 10		10 - 12	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	NA		NA		< DL	(31.8)	< DL	(34.3)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	260 B	(3.29)	578 B	(7.94)	14.4 B	(1.61)	17.2 B	(1.75)
Ethyl benzene	[$8x10^6$]	4.55	(3.62)	12.6	(8.76)	ND	(1.78)	ND	(1.93)
Methyl ethyl ketone	[$4x10^6$]	46.6 B	(3.34)	38.1 B	(8.07)	6.76 B	(1.64)	8.84 B	(1.78)
Methylene Chloride	[$9.3x10^4$]	3.21 J	(5.72)	ND	(13.8)	5.22	(2.81)	3.51	(3.04)
Toluene	[$1.6x10^7$]	3.52 J	(3.73)	30.6	(9.01)	ND	(1.83)	ND	(1.98)
Xylene (total)	[$1.6x10^8$]	6.83 J	(7.97)	45.6	(19.3)	ND	(3.91)	ND	(4.24)
SW6010 - Metals (mg/kg)									
Barium	[84, 5600]	42.3	(0.0543)	40.4	(0.0554)	76.8	(0.0475)	26.8	(0.0476)
Cadmium	[1.0, 80]	0.346	(0.269)	< DL	(0.274)	0.375	(0.235)	0.257	(0.236)
Chromium	[6.6, $8x10^4$]	5.96	(0.256)	6.52	(0.261)	21.9	(0.224)	4.88	(0.224)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.9, 24]	1.76	(0.301)	1.53	(0.273)	0.493	(0.295)	< DL	(0.326)
SW7421 - Lead (mg/kg)									
Lead	[12.3, 80]	0.607 S	(0.0868)	0.24 S	(0.11)	1.07 S	(0.165)	0.235 S	(0.216)
SW7740 - Selenium (mg/kg)									
Selenium	[10.5, 400]	2.86 SB	(0.269)	2.86 SB	(0.244)	3.13 SB	(0.264)	3.36SB	(0.291)
Location ID		002-B01				002-B01			
Sample ID		002-B01-01-01				002-B01-02-01			
Sample Interval (ft)		7.5 - 9.5				9.5 - 11.5			
SW8270 - Semivolatile Organics (µg/g)									
2-Methylnaphthalene	[NS]	0.424		(0.0313)		0.503		(0.0325)	
Acenaphthene	[$4.8x10^3$]	0.0401		(0.0312)		0.0202 J		(0.0324)	
Butylbenzylphthalate	[$1.6x10^4$]	0.179		(0.076)		0.066 J		(0.0789)	
Dibenzofuran	[NS]	0.0901		(0.0239)		0.035		(0.0248)	
Dibutylphthalate	[$8x10^3$]	0.184 B		(0.025)		0.0633 B		(0.0259)	
Fluoranthene	[$3.2x10^3$]	0.0118 J		(0.0269)		ND		(0.0279)	
Fluorene	[$3.2x10^3$]	0.0824		(0.0223)		ND		(0.0232)	
Naphthalene	[$3.2x10^3$]	0.0285		(0.0272)		0.0472		(0.0283)	
Phenanthrene	[NS]	0.162		(0.0349)		0.0619		(0.0363)	
Pyrene	[$2.4x10^3$]	0.0151 J		(0.0191)		ND		(0.0199)	
bis(2-Ethylhexyl)phthalate	[50]	0.857 B		(0.064)		0.332 B		(0.0664)	

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = No action level for this compound.
ND = Not detected.
NS = Not analyzed.
S = Analyte concentration obtained using MSA.

Barium, chromium, and selenium were detected at concentrations above UTLs for background in the samples from SWMU 119 and in one sample from SWMU 2. However, none of the detected concentrations of metals exceeded risk-based trigger criteria.

No COPCs were identified by the risk screen and TRPH were not detected above trigger criteria in any of these samples.

4.1.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMUs 119 and 2 to determine whether further investigation of the SWMUs is warranted due to unacceptable risk to human health or the environment. COPCs, exposure pathways, and receptors were identified.

On-site workers may be exposed through inhalation of volatiles. The SWMUs are covered with gravel, so fugitive dust generation and dermal contact with soil is expected to be insignificant. Main Base residents are probably not exposed to volatiles due to the small size and relative distance (1 mile) of the SWMUs.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface soil and subsurface soil are below EPA Region III screening criteria, so there are no COPCs for these SWMUs.

The SWMUs offer no habitat for animals, so there are no on-site ecological concerns. In a future scenario, if soil contaminants migrate to groundwater, which is approximately 9.5 ft deep, plants may take up contaminants through their root systems. In this case, wildlife could be exposed to contamination via ingestion of potentially contaminated plants, but due to the small size of the SWMUs and limited subsurface soil contamination, it is unlikely that wildlife are adversely impacted by the SWMUs.

4.1.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from these SWMUs. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore it is highly unlikely that these SWMUs pose a significant risk to human health or the environment.

4.1.5 Recommendations

NFA was recommended for SWMUs 119 and 2 in the 1994 Draft Final Phase I Table 2 RFI Report. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Neither unit was active and therefore both units were removed in 1996. As discussed in the *Final Closure Report for Phase II Remediation of (POL) Contaminated Sites and O/WS and WOT Removals, Holloman Air Force Base, New Mexico, July 1997*, the highest soil TPH concentration was 43 mg/kg. TPH was not detected in any closure sample. Therefore, no soil required disposal. In addition, closure samples were also analyzed for VOCs and SVOCs. No VOCs were detected. SVOCs were detected in Closure Sample 3, but levels were far below any risk screening criteria. Based on the above additional information, these SWMUs were recommended for NFA.

[This page intentionally left blank.]

4.2 SWMU 15—Building 309 Oil/Water Separator
SWMU 120—Building 309 Waste Oil Tank

SWMUs 120 and 15 are on Table 2 of Holloman AFB's HSWA permit. The SWMUs were in operation between 1975 and 1989 and have no history of release. No halon vapor monitoring system is present and no previous investigation has been conducted at these SWMUs. During the investigation, no evidence of SWMU 120 (waste oil tank) could be found. Additional interviews with Building 309 personnel confirmed that a waste oil tank has not been installed at the site. The oil/water separator (SWMU 15) served as both a separator and tank, where the oil was collected in a chamber and then removed via pumping. For this investigation, two borings were drilled in the potentially affected area immediately surrounding the SWMU 15. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human health or the environment. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMU 15; a Class 3 permit modification request will be

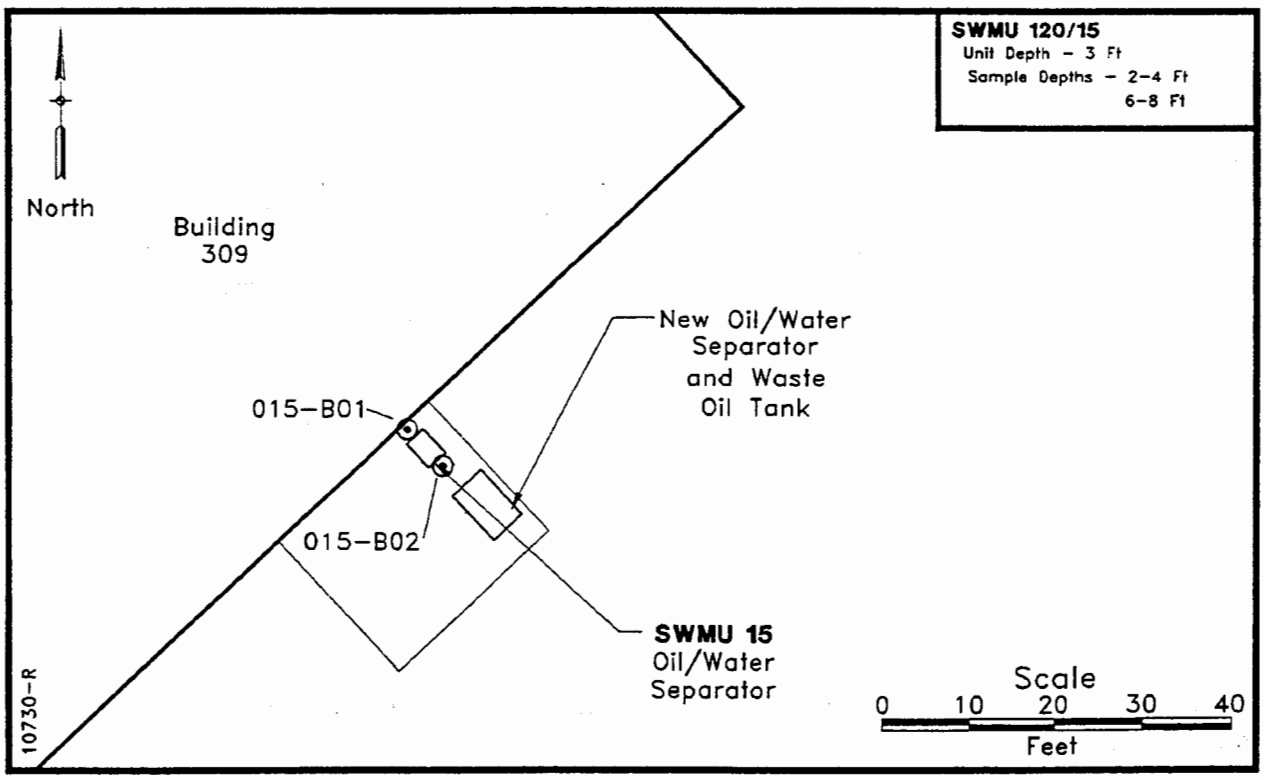


Figure 4.2-1. SWMUs 15 and 120 Features and Sampling Locations

completed by Holloman AFB to achieve NFA. Site observations and interviews with workers at Building 309 indicate that a waste oil tank (SWMU 120) was never installed at the site; therefore a Class 3 permit modification request will be submitted by Holloman AFB to remove SWMU 120 from Table 2 of Holloman AFB's HSWA permit.

4.2.1 SWMU Description

Physical Features—As shown in Figure 4.2-1, SWMU 15 is located approximately 10 ft from Building 309 on the southeast side of the building. SWMU 120 could not be located. The top of the oil water separator is level with the ground and surrounded by asphalt. The separator has been connected in line with a new oil/water separator, which has its own waste oil tank.

Unit Description—The oil/water separator (SWMU 15) is approximately 3 ft long, 2 ft wide, and 3 ft deep, with an approximate capacity of 135 gal.

Waste Description—Rinsate and waste oils from Building 309 are routed through the old oil/water separator to the new oil/water separator for processing.

Release History—A literature search and visual inspection during drilling activities indicate that no release has occurred. No halon vapor monitoring system is present.

4.2.2 SWMU Investigation and Results

Two soil borings were drilled next to SWMU 15, as shown in Figure 4.2-1. Split spoon samples were collected every 2 ft to 8 ft bgl (4 ft below the unit). Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the intervals at the base of the unit (2-4 ft bgl) and 4 ft below the base of the unit (6-8 ft bgl). A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 15 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and silt. Groundwater occurs in silty sand at approximately 5.5 ft bgl. Groundwater in this part of the Base generally flows to the south-southwest.

Analytical Results

All samples were analyzed for volatile organic compounds (VOCs), TRPH, and metals. No samples were analyzed for semivolatile organic compounds because none were visibly contaminated. Summary analytical results are presented in Table 4.2-1.

Acetone was detected at concentrations below detection limits on all four samples, and was also detected at similar concentrations in the associated method blanks, so its presence in these samples is likely to be due to low-level laboratory contamination. Methylene chloride was detected in two samples, but at concentrations substantially below trigger criteria.

Chromium was detected at concentrations above UTLs for background in three of the four samples. However, none of the detected concentrations of metals exceeded trigger criteria.

No COPCs were identified by the risk screen and TRPH were not detected above trigger criteria in any of these samples.

Table 4.2-1
Analytical Results for Soil Samples—SWMU 15

Location ID		015-B01		015-B01		015-B02		015-B02	
Sample ID		015-B01-01-01		015-B01-02-01		015-B02-01-01		015-B02-02-01	
Beg. Depth-End Depth (ft)		2-4		6-8		2-4		6-8	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	36 B	(30.5)	< DL	(32.7)	31.7	(28.8)	< DL	(31.5)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	19.6 BJ	(29.6)	12 BJ	(31.7)	16.7 BJ	(27.9)	7.04 BJ	(30.8)
Methylene chloride	[$9.3x10^4$]	3.71	(1.66)	ND	(1.78)	3.5	(1.57)	ND	(1.73)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	51.8	(0.0604)	42.1	(0.0468)	69.3	(0.0388)	45.3	(0.0417)
Chromium	[$6.6,8x10^4$]	7.51 B	(0.285)	5.56 B	(0.221)	9.08 B	(0.183)	6.97 B	(0.197)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	1.64 S	(0.285)	1.48 S	(0.723)	3.65	(0.706)	0.97 S	(0.281)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	5.12 S	(0.0723)	2.11 S	(0.0736)	7.37 S	(0.143)	2.81 S	(0.0981)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.51 S	(0.255)	2.95 S	(0.258)	1.59 S	(0.252)	1.38 S	(0.251)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics, [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte also detected in laboratory method blank.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
S = Analyte concentration obtained using the Method of Standard Additions (MSA).

4.2.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 15 to help determine the need for further investigation based on potential human health or ecological risks. Potential exposure pathways and receptors were identified and chemicals of potential concern were selected.

The unit is located in an area of the Main Base that is zoned for industrial use (*Management Action Plan*, Radian, 1993). There are employees located in buildings near the site.

The area around the SWMU is covered with gravel and asphalt, so fugitive dust generation and dermal contact with soil are expected to be minimal. Additionally, since all but the top of the unit is underground, a release from the unit is expected to affect subsurface rather than surface soil. However, volatiles may be generated from any subsurface contamination from a release. Therefore, nearby workers may be exposed to contamination through inhalation of volatiles. Base residents may also be exposed via inhalation of volatiles; however, due to the small size of the unit and the distance to Base residential areas (1 mile), this pathway is likely to be insignificant.

Groundwater flow in this part of the Base is to the south-southwest. Surface runoff from the SWMUs drains to nearby paved areas and enters the Base storm sewer system. There are no complete pathways involving groundwater and surface water.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in subsurface soil are below Region III screening criteria, so there are no COPCs for this SWMU.

The site is not vegetated, and is too small to serve as habitat to animals. Ecological exposure may occur via inhalation of ambient air migrating from the site, and from ingestion of potentially contaminated plants should future conditions involve direct plant uptake from soil or should soil contamination migrate to groundwater. However, due to the small size of the unit and minimal subsurface soil contamination, it is highly unlikely that wildlife is adversely impacted by SWMU 15.

4.2.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from SWMU 15. Site observations and interviews with workers at Building 309 indicate that a waste oil tank (SWMU 120) was never installed at the site. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore it is highly unlikely that these SWMUs pose a significant risk to human health or the environment.

4.2.5 Recommendations

NFA is recommended for the SWMUs; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA. A Class 3 permit modification request will be submitted by Holloman AFB to remove SWMU

120 and SWMU 15 from Table 2 of Holloman AFB's HSWA permit.

[This page intentionally left blank.]

4.3 SWMU 17—Building 316 Oil/Water Separator
SWMU 121—Building 316 Waste Oil Tank

SWMUs 121 and 17 are on Table 2 of Holloman AFB's HSWA permit. These SWMUs have been in operation from an unknown date. A halon vapor monitoring system was installed around SWMU 121 in October 1991 and monitored through July 1992. Monitoring results indicate that the tank did not leak during that period; therefore SWMU 121 was not investigated during the Table 2 RFI. No previous investigation has been conducted at SWMU 17. For this investigation, two borings were drilled in the potentially affected area immediately surrounding SWMU 17. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMUs.

Only one exposure pathway (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human health or the environment. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMUs; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.3.1 SWMU Description

Physical Features—As shown in Figure 4.3-1, SWMUs 121 and 17 are located

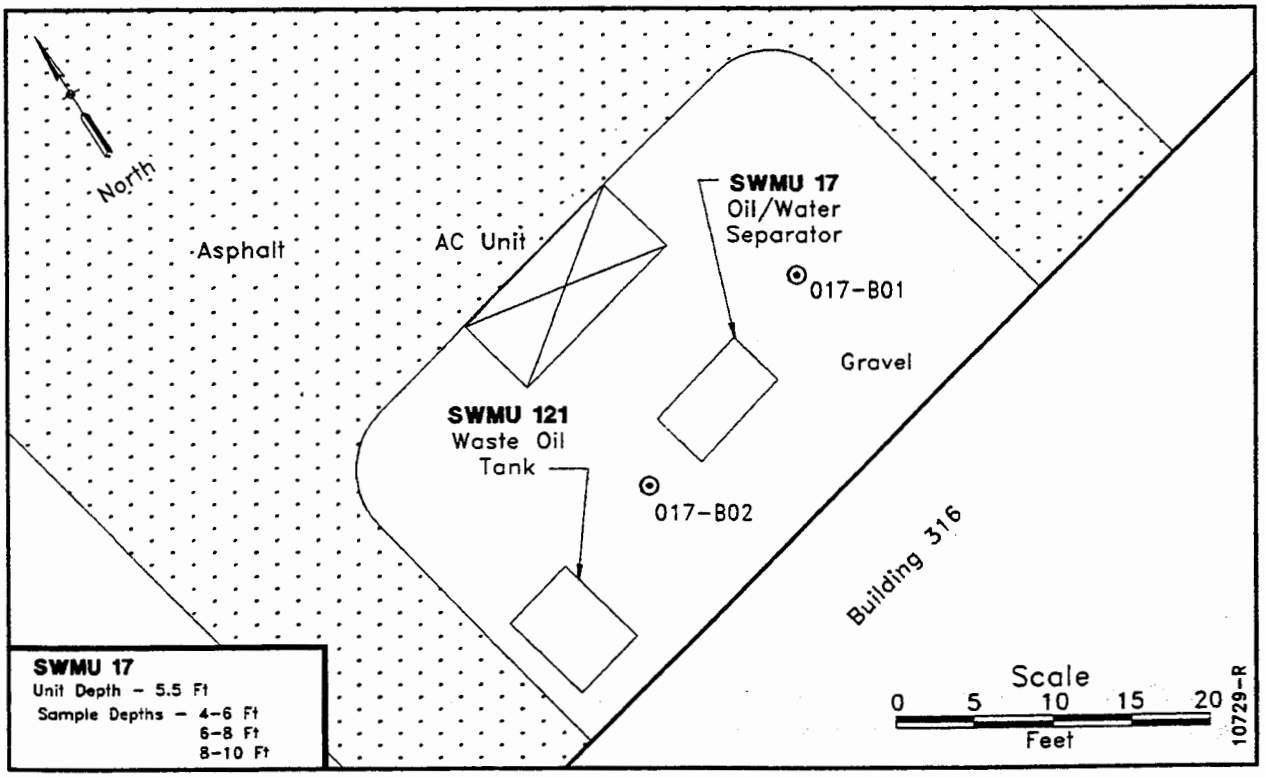


Figure 4.3-1. SWMUs 17 and 121 Features and Sampling Locations

approximately 5 ft northwest Building 316. The top of the oil/water separator is at ground level and is covered by gravel. The waste oil tank lies below grade and is also covered by gravel. The base of the units are approximately 5.5 ft bgl.

Unit Description—The oil/water separator (SWMU 17) is approximately 5 ft long, 3 ft wide, and 4 ft deep, with a total capacity of 400 gal. The construction and age of SWMUs 17 and 121 are unknown.

Waste Description—The oil/water separator receives rinse water containing hydraulic fluid from the Building 316 flight simulator. Some of the hydraulic oils processed through the unit may have contained PCBs. Waste oil skimmed from the water in the oil/water separator is transferred by gravity flow to the adjacent waste oil tank via a subsurface pipe, and water is discharged to the sewer system.

Release History—Results from the vapor monitoring system in operation at SWMU 121 between October 1991 and July 1992 indicate that the waste oil tank did not leak during that time; however, staining in the soils adjacent to SWMU 17 was observed during the drilling operations at the site in November 1993.

4.3.2 SWMU Investigation and Results

Two soil borings were drilled near SWMU 17 as shown in Figure 4.3-1. Borings 017-B01 and 017-B02 were drilled approximately 5 ft and 3 ft from SWMU 17, respectively. Split spoon samples were collected every 2 ft to 10 ft bgl (4 ft below the unit). Each interval was logged and screened using an OVM. Boring logs with screening results are provided. Chemical analytical samples were collected from the interval at the base of the unit (4-6 ft), the most visibly contaminated interval (6-8 ft), and the interval 4 ft below the base of the unit (8-10 ft). A soil sample for geotechnical analysis was collected from one boring. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 121 and 17 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of the site stratigraphy.

Site lithology consists primarily of silt and silty sand. Silt lenses, ranging in thickness from 2 to 4 ft are interbedded with silty sand in both borings. Black staining was observed in silty sand at approximately 7 feet bgl. Groundwater occurs in clayey silt approximately 4 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for VOCs, TRPH, PCBs, and metals. The deepest two samples from both borings were analyzed for semivolatile organic compounds because they were visibly contaminated. Summary analytical results are presented in Table 4.3-1.

Several VOCs were detected at concentrations near detection limits. Acetone was detected in all samples. It was also detected in associated method blanks, but at levels lower than those seen in several other samples. The semivolatile organic compound bis(2-ethylhexyl)phthalate was detected in one sample at a concentration below the detection limit. All detected concentrations of volatile and semivolatile organic compounds were below trigger criteria.

PCBs were not detected in any of the samples collected at the site.

Table 4.3-1
Analytical Results for Soil Samples—SWMU 17

Location ID		017-B01		017-B01		017-B01		017-B02		017-B02		017-B02	
Sample ID		017-B01-01-01		017-B01-02-01		017-B01-03-01		017-B02-01-01		017-B02-02-01		017-B02-03-01	
Sample Interval (ft)		4-6		6-8		8-10		4-6		6-8		8-10	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)													
Hydrocarbons	[1000]	< DL	(34.4)	48.5	(34.2)	< DL	(34.3)	< DL	(35.7)	358	(35.6)	215	(34.9)
SW8240 - Volatile Organics (µg/kg)													
Acetone	[8x10^6]	44.9 B	(33.4)	232	(33.1)	31.7 BJ	(33.6)	23.2 BJ	(34.9)	392	(184)	119	(33.8)
Carbon disulfide	[8x10^6]	ND	(5.46)	ND	(5.41)	ND	(5.49)	ND	(5.71)	ND	(30.1)	3.79 J	(5.53)
Methyl ethyl ketone	[4.8x10^7]	ND	(4.44)	4.95	(4.4)	ND	(4.46)	ND	(4.64)	27.7	(24.5)	ND	(4.5)
Methylene chloride	[9.3x10^4]	3.17	(1.87)	12.4	(1.86)	2.16	(1.88)	6.57	(1.96)	ND	(10.3)	5.04	(1.9)
SW8270 - Semivolatile Organics (µg/g)													
bis(2-Ethylhexyl)phthalate	[50]	NA		ND	(0.122)	ND	(0.123)	NA		0.0982 J	(0.127)	ND	(0.125)
SW6010 - Metals (mg/kg)													
Barium	[84.36, 5600]	57.4	(0.0528)	38.2	(0.0536)	123	(0.0454)	28	(0.0475)	27.8	(0.0536)	29.9	(0.0515)
Chromium	[6.6,8x10^4]	4.79	(0.249)	5.82	(0.253)	5.52	(0.214)	3.4	(0.224)	5.7	(0.253)	5.73	(0.243)
SW7060 - Arsenic (mg/kg)													
Arsenic	[6.88,24]	0.95 S	(0.227)	0.5 S	(0.316)	0.77 S	(0.317)	0.109 SJ	(0.279)	1.97 S	(0.326)	1.28 S	(0.292)
SW7421 - Lead (mg/kg)													
Lead	[12.3,500]	1.15 S	(0.0571)	59.9 S	(2.16)	54.3 S	(2.16)	2.28 S	(0.0705)	83.6 S	(2.48)	1.77 S	(0.0736)
SW7740 - Selenium (mg/kg)													
Selenium	[10.53,400]	2.92 S	(0.203)	2.84 S	(0.282)	2.36 S	(0.283)	2.18 S	(0.249)	3.2 S	(0.292)	1.94 S	(0.261)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte also detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
S = Analyte concentration obtained using the MSA.

Barium and lead were detected at concentrations above UTLs for background. However, none of the detected metals concentrations exceeded trigger criteria.

No COPCs were identified by the risk screen and TRPH were not detected above trigger criteria in any of these samples.

4.3.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMUs 121 and 17 to help determine the need for further investigation based on potential human health or ecological risk. Potential exposure pathways and receptors were identified and the COPCs were selected.

The units are located in an area of the Main Base that is zoned for the operation and maintenance of aircraft (*Management Action Plan*, Radian, 1993). There are employees located in the buildings near the site. The SWMUs are covered with gravel, and the area around the SWMUs consists of parking lots and roads, so fugitive dust generation and dermal contact with soil are expected to be minimal. Additionally, since all but the top of the unit is underground, a release from the unit is expected to affect subsurface rather than surface soil. However, volatiles may be generated from any subsurface contamination caused by a release from the unit. Therefore, nearby workers may be exposed to contamination through inhalation of volatiles. Base residents, located 1/2 mile from the site, may also be exposed via inhalation of volatiles.

Groundwater flow in this part of the Base is to the southwest. Surface runoff from the SWMUs drains into the Base storm sewer system. There are no complete pathways for groundwater and surface water.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in subsurface soil are below Region III screening criteria, so there are no COPCs for these SWMUs.

The site itself is covered with gravel and does not offer suitable habitat or forage, so dermal contact with soil should not be a concern. In a future scenario, if soil contaminants migrate to groundwater, which is approximately 4 ft deep, plants may take up contaminants through their root systems. Therefore, wildlife may be exposed to contamination via ingestion of potentially contaminated plants. However, due to the small size of the site and limited contamination, it is unlikely that inhalation or groundwater contamination will result in risk to the environment.

4.3.4 Conclusions

Conclusions are based on a comparison of the results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

Staining noted in the soils from 7-9.6 ft and 6.5-10 ft at 017-B01 and 017-B02, respectively, indicates that a potential release has occurred from the oil/water separator. However, the concentration of all detected constituents within the stained intervals at these two locations are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. Only one exposure pathway; (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment, and the risk-based screen indicates that none of the detected constituent concentrations exceed health-based criteria. No COPCs were identified for the site; thus it is highly unlikely that these units pose a

risk to human health or the environment. Further investigation is not warranted.

4.3.5 Recommendations

NFA was recommended for SWMUs 17 and 121 in the 1994 Draft Final Phase I Table 2 RFI Report. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Both units were inactive and therefore were removed in July 1997 as part of Holloman AFB's Phase II Basewide POL project. No soil exceeding the 1000 mg/kg soil TPH standard was found during the removal of SWMUs 17 and 121 and therefore no contaminated required disposal. Five confirmation samples were taken with the highest TPH concentration being 80 mg/kg. A more detailed account will be provided in the *Addendum to the Final Closure Report for the Phase II Remediation of (POL) Contaminated Sites and O/WS and WOT Removals, Holloman Air Force Base, New Mexico* to be submitted in September 1997.

[This page intentionally left blank.]

4.4 SWMU 21—Building 702 Oil/Water Separator
SWMU 22—Building 704 Oil/Water Separator
SWMU 123—Building 704 Waste Oil Tank

SWMUs 123 and 22 are on Table 2 of Holloman AFB's HSWA permit. SWMU 21 is currently on Table 3 of the permit, but will be moved to Table 2 pending a Class 1 permit modification. The units were in operation from 1980 to 1991. No previous investigation has been conducted at these SWMUs. However, the SWMUs are adjacent to SWMU 54 and 55, which were initially investigated in 1988 and 1989 (*RI Report*, Walk Haydel, and Associates, Inc., 1989), and are also adjacent to IRP Site 47, which was investigated by Woodward-Clyde Consultants in 1993. For this investigation, six soil borings were drilled in the potentially affected area immediately

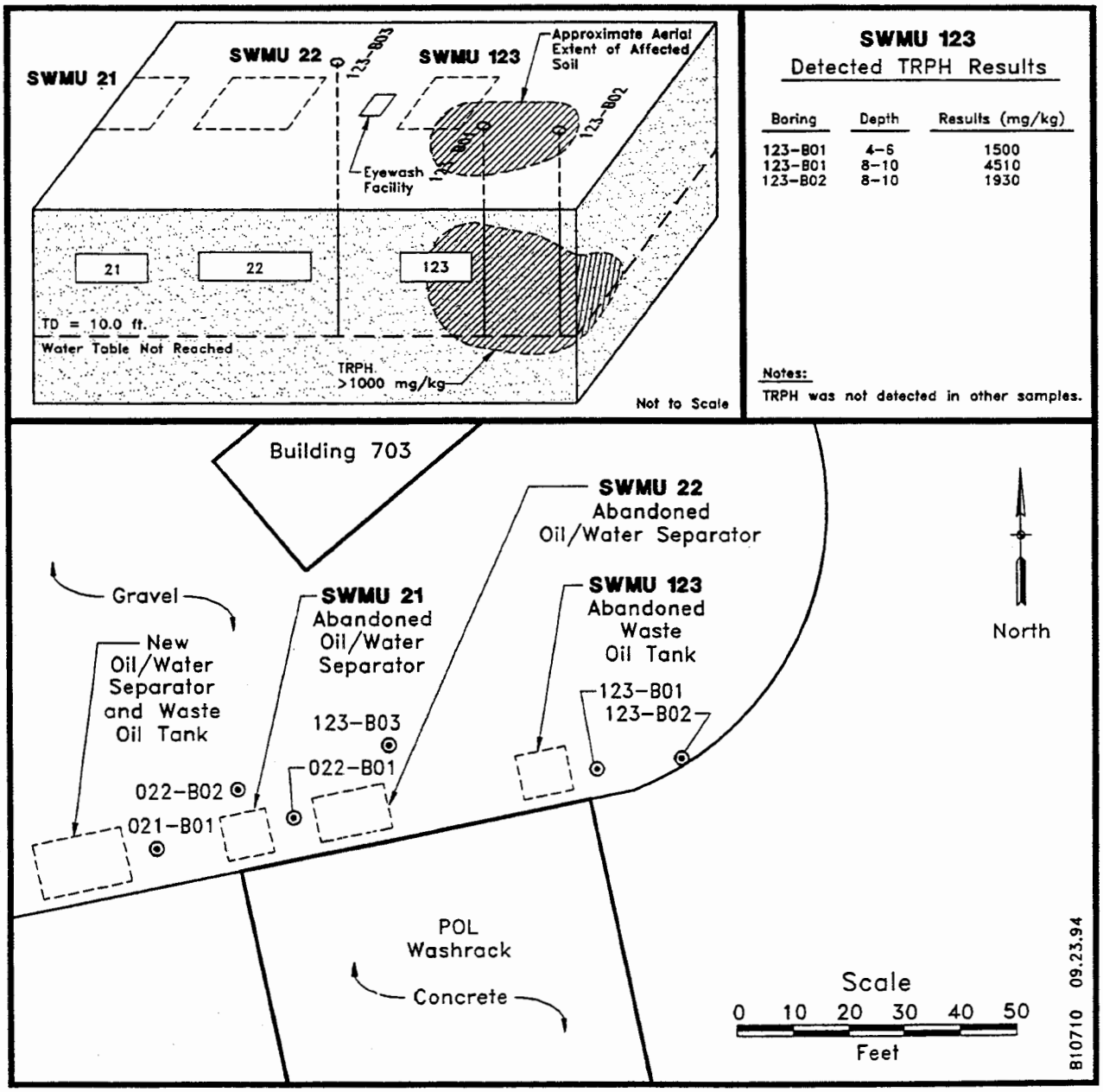


Figure 4.4-1. SWMUs 21, 22, and 123 Features and Sampling Locations

surrounding the SWMUs. Analytical results indicate that all detected constituents at SWMUs 21 and 22 are below risk-based trigger criteria and below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB. Analytical results at SWMU 123, however, indicate that benzene is above trigger criteria in one sample from 123-B01 and that TRPH are above the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB in two samples from 123-B01 and in one sample from 123-B02. This indicates that, although no release has occurred from SWMUs 21 and 22, a release has from SWMU 123.

In the human health risk assessment, Base residents, nearby workers, and future construction workers were assessed for exposure through inhalation of volatiles and fugitive dust. Future construction workers were also assessed for exposure through dermal contact with, and incidental ingestion of, soil. The results of the human health and ecological risk assessments indicate that the SWMUs do not pose a risk to human health or the environment.

NFA is recommended for SWMUs 21 and 22; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA. CNFA is recommended for SWMU 123; the CNFA is remediation of TRPH-contaminated soil.

4.4.1 SWMU Description

Physical Features—As shown in Figure 4.4-1, SWMUs 21, 22, and 123 are located adjacent to the POL washrack, approximately 50 ft south of Building 703. The top of the oil/water separators is slightly below ground surface and is covered with gravel. The waste oil tank lies below grade and is covered with gravel. The depth to the base of all three units is approximately 6.5 ft bgl.

Unit Description—The oil/water separators (SWMUs 21 and 22) are each 1 ft wide, 1 ft long, and 2 ft deep and are similarly constructed of steel. The size and construction material of the waste oil tank (SWMU 123) is unknown.

Waste Description—Washwater, waste oil, and fuels from the adjacent washrack were routed to the oil/water separators for processing. The waste oil skimmed from the water in the oil/water separators was transferred by gravity to the waste oil tank via a subsurface pipe.

Release History—No past release from the SWMUs was identified through a literature search and initial site visit. Stained soils were observed, however, at 1.5 and 5.5 ft bgl in borings 123-B01 and 123-B02, respectively, and may indicate that a release has occurred from SWMU 123. Soils in other site borings did not show visual contamination.

4.4.2 SWMU Investigation Results

Six soil borings were drilled at the SWMUs, as shown in Figure 4.4-1. Split spoon samples were collected every 2 ft to approximately 12 ft bgl (4 ft below the units). Each interval was logged and screened using an OVM. The following information was not provided in the 1994 Draft Final Phase I Table 2 RFI Report. Boring logs for SWMU 123 with screening results are provided in Appendix D. No boring logs are available for SWMUs 21 or 22 due to poor sample retrieval during sampling. Chemical analytical samples were collected from the interval at the base of the units (6.5-8.5 ft bgl), and approximately 4 ft below the base of the units (10.5-12.5 ft bgl). A soil sample for geotechnical analysis was collected from the boring. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 21, 22, and 123 were defined by direct sampling and

observation of the drilling operations at the site. Boring logs provide a detailed description of the site stratigraphy.

Site lithology consists primarily of sand and silty sand. Groundwater was not encountered in the borings, which were drilled to a total depth of 10 feet. Groundwater flow direction in this part of the Base generally varies from southeast to southwest.

Analytical Results

All samples were analyzed for VOCs, TRPH, and metals. As required by the *Work Plan* (Radian, 1993), six samples were also analyzed for semivolatile organic compounds because they were visibly contaminated.

Tables 4.4-1, 4.4-2, and 4.4-3 summarize the results from SWMUs 21, 22, and 123, respectively. As the tables present, several VOCs were detected at concentrations at or below detection limits, so their presence in the samples is uncertain. Benzene, ethyl benzene, and toluene were detected in samples from SWMU 123, but at concentrations below trigger criteria, except benzene which was detected at a concentration above trigger criteria in the sample from 8-10 ft at 123-B01.

Chromium, lead, and mercury were detected at concentrations above UTLs for background in several samples. However, none of the detected concentrations of metals exceeded trigger criteria.

TRPH were detected at concentrations above trigger criteria in several samples from SWMU 123. The elevated levels of TRPH correlate well with the distribution of stained soils observed at the SWMU. During drilling, stained soils were noted from 1.5 to 10 ft in 123-B01 and from 6 to 10 ft in 123-B02; no staining was observed in other site borings. All detected concentrations were below the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB, except in the samples from 4-6 ft and 8-10 ft at 123-B01, which had TRPH concentrations of 1500 mg/kg and 4510 mg/kg, respectively, and from 8-10 ft at 123-B02, which had TRPH concentrations of 1930 mg/kg (Figure 4.4-1).

4.4.3 Risk Assessment Results

A quantitative risk assessment for Site 47 (SWMUs 21, 22, 54, 55, and 123) was conducted by Walk, Haydel, and Associates , 1989. This risk assessment was updated using new data collected during this investigation to assess the impacts of site COPCs on human health and the environment. COPCs, exposure pathways, and receptors were identified as described in Appendix C. The risk assessment methodology followed is presented in the *RA Report* (Radian, 1992b). COPCs selected for the site are presented in Table C.1-3. Risked-based screening results are presented in Attachment 5 of Appendix C.

Workers near the site could be exposed through inhalation of volatiles and through inhalation of contaminants entrained in fugitive dust generated through the gravel cover at the site. Since the site is gravel covered, dermal contact with and incidental ingestion of soil is expected to be minimal. On-base residents, approximately 0.6 miles from the site, could be exposed through air dispersed volatiles or dust-entrained contaminants from the site. Potential future construction workers could be exposed by the inhalation pathways (volatiles and fugitive dust), and by dermal contact and incidental ingestion of surface or subsurface soil contaminants if construction were to take place on the site in the future. These were the exposure pathways quantified in the risk assessment.

Table 4.4-1
Analytical Results for Soil Samples—SWMU 21

Location ID		021-B01		021-B01	
Sample ID		021-B01-01-01		021-B01-02-01	
Beg. Depth-End Depth (ft)		6.5-8.5		10.5-12.5	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)					
Hydrocarbons	[1000]	< DL	(33.7)	< DL	(34.5)
SW8240 - Volatile Organics (µg/kg)					
4-Methyl-2-pentanone (MIBK)	[$4x10^6$]	ND	(3.43)	2.58 BJ	(3.48)
Acetone	[$8x10^6$]	8.24 BJ	(20)	12.7 BJ	(20.3)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(9.63)	6.33 BJ	(9.76)
Methylene chloride	[$9.3x10^4$]	1.04 J	(2.84)	1.02 J	(2.88)
Trichloroethene	[NS]	2.34 J	(4.34)	ND	(4.4)
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	17.5	(0.0539)	38.2	(0.0532)
Chromium	[$6.6.8x10^4$]	3.68 B	(0.254)	4.97 B	(0.251)
Silver	[0.73,400]	0.645	(0.17)	< DL	(0.168)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	1.37	(0.833)	< DL	(0.731)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	1.76 S	(0.0843)	0.265 S	(0.0741)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	3.81	(0.298)	4.18	(0.261)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

Table 4.4-2
Analytical Results for Soil Samples—SWMU 22

Location ID		022-B01		022-B01		022-B02		022-B02	
Sample ID		022-B01-01-01		022-B01-02-01		022-B02-01-01		022-B02-02-01	
Beg. Depth-End Depth (ft)		6-8		10.5-12.5		6-8		10.5-12.5	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(33.3)	< DL	(33.2)	< DL	(32.9)	< DL	(34.5)
SW8240 - Volatile Organics (µg/kg)									
2-Hexanone	[NS]	3.7 BJ	(7.6)	ND	(7.49)	ND	(7.46)	ND	(7.86)
4-Methyl-2-pentanone (MIBK)	[$4x10^6$]	2.91 BJ	(3.39)	ND	(3.34)	ND	(3.32)	ND	(3.5)
Acetone	[$8x10^6$]	147	(19.7)	166	(19.4)	7.97 BJ	(19.4)	515	(49.8)
Methyl ethyl ketone	[$4.8x10^7$]	4.95 BJ	(9.49)	8.01 BJ	(9.36)	ND	(9.32)	ND	(9.82)
Methylene chloride	[$9.3x10^4$]	1.01 J	(2.8)	1.49 J	(2.76)	0.815 J	(2.75)	1.1 J	(2.9)
Trichloroethene	[NS]	ND	(4.28)	2.75 J	(4.22)	ND	(4.2)	2.65 J	(4.43)
Xylene (total)	[$1.6x10^8$]	ND	(6)	0.774 J	(5.91)	ND	(5.89)	ND	(6.21)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	59.4	(0.0618)	23.4	(0.0538)	37.7	(0.0482)	23.5	(0.0464)
Chromium	[6.6,$8x10^4$]	7.23 B	(0.291)	4.17 B	(0.254)	5.93 B	(0.227)	3.08 B	(0.219)
Silver	[0.73,400]	< DL	(0.195)	0.2	(0.17)	< DL	(0.152)	0.451	(0.147)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	1.51	(0.804)	< DL	(0.79)	4.26	(0.665)	< DL	(0.773)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	2.77 S	(0.0814)	0.863 S	(0.08)	4.01 S	(0.135)	0.248 S	(0.0783)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	4.64	(0.287)	3.52	(0.282)	3.97	(0.238)	3.84	(0.276)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

Table 4.4-3
Analytical Results for Soil Samples—SWMU 123

Location ID		123-B01		123-B01		123-B02		123-B02		123-B03		123-B03	
Sample ID		123-B01-01-01		123-B01-02-01		123-B02-01-01		123-B02-02-01		123-B03-01-01		123-B03-02-01	
Beg. Depth-End Depth (ft)		4-6		8-10		4-6		8-10		6-8		10-12	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)													
Hydrocarbons	[1000]	1500	(32.1)	4510	(68.5)	< DL	(31.9)	1930	(36)	< DL	(32.4)	< DL	(34.6)
SW8240 - Volatile Organics (ug/kg)													
1,1-Dichloroethene	[$1.16X10^4$]	464 J	(833)	7210 J	(8930)	ND	(3.47)	569 J	(747)	ND	(3.1)	ND	(3.31)
Acetone	[$8x10^6$]	ND	(1330)	ND	(14300)	778	(144)	ND	(1190)	124	(19.1)	28.8 B	(20.4)
Benzene	[$2.4x10^4$]	742 J	(1150)	54000	(12300)	ND	(1.91)	12800	(1030)	ND	(1.3)	ND	(1.39)
Carbon disulfide	[$8x10^6$]	ND	(1080)	ND	(11600)	13.2	(5.09)	ND	(967)	ND	(3.46)	ND	(3.69)
Ethyl benzene	[$8x10^6$]	20500	(762)	229000	(8180)	ND	(2.01)	36800	(684)	ND	(1.25)	ND	(1.34)
Methylene Chloride	[$9.3x10^4$]	ND	(1280)	ND	(13800)	ND	(1.75)	ND	(1150)	0.894 J	(2.71)	0.875 J	(2.89)
Toluene	[$1.6x10^7$]	2280	(479)	345000	(5130)	ND	(1.89)	36300	(429)	ND	(2.58)	ND	(2.76)
Xylene (total)	[$1.6x10^8$]	14600	(1490)	363000	(15900)	ND	(4.09)	66000	(1330)	ND	(5.81)	ND	(6.2)
SW8270 - Semivolatile Organics (ug/g)													
2-Methylnaphthalene	[NS]	3.11	(0.859)	4.38	(0.951)	ND	(0.092)	1.43	(0.991)	ND	(0.0252)	ND	(0.027)
Dibenzofuran	[NS]	ND	(0.655)	0.471 J	(0.725)	ND	(0.0702)	ND	(0.756)	ND	(0.0241)	ND	(0.0257)
Naphthalene	[NS]	0.402 J	(0.747)	ND	(0.827)	ND	(0.08)	ND	(0.862)	ND	(0.0335)	ND	(0.0359)
SW6010 - Metals (mg/kg)													
Barium	[84.36,5600]	76	(0.042)	28	(0.061)	31.3	(0.05)	32.1	(0.0485)	48.7	(0.0581)	29	(0.052)
Chromium	[$6.6,8x10^4$]	21.1	(0.198)	6.18 B	(0.288)	7.46 B	(0.236)	4.08 B	(0.229)	7.23 B	(0.274)	2.63 B	(0.245)
Silver	[0.73,400]	< DL	(0.133)	0.587 B	(0.193)	< DL	(0.158)	0.369 B	(0.153)	< DL	(0.184)	0.463	(0.164)
SW7060 - Arsenic (mg/kg)													
Arsenic	[6.88,24]	1.75 B	(0.586)	< DL	(0.717)	0.923 B	(0.682)	< DL	(0.774)	3.15	(0.726)	< DL	(0.896)
SW7421 - Lead (mg/kg)													
Lead	[12.3,500]	76.8 S	(1.52)	2.99 S	(0.0746)	3.42 S	(0.0738)	1.94 SB	(0.0659)	4.17 S	(0.147)	4.22 S	(0.0907)
SW7471 - Mercury (mg/kg)													
Mercury	[NS]	0.0192 B	(0.0154)	0.0411 B	(0.0164)	< DL	(0.0154)	0.0326 B	(0.0174)	< DL	(0.0156)	< DL	(0.0167)
SW7740 - Selenium (mg/kg)													
Selenium	[10.53,400]	< DL	(0.21)	< DL	(0.256)	< DL	(0.244)	0.38	(0.277)	3.58	(0.259)	4.29	(0.32)

Table 4.4-3 (Continued)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.
( ) = Detection limit.
B = Analyte also detected in laboratory method blank.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the Method of Standard Additions (MSA).

Risk values for all scenarios evaluated were below the range considered unacceptable. For the near site worker scenario, present average and reasonable maximum carcinogenic risks were 2E-07 and 3E-07; future risks were 1E-05 and 3E-05. Present residential carcinogenic risks were 1E-10 and 2E-10, while future residential risks were 3E-12 and 5E-12. Potential future construction worker carcinogenic risks were 1E-08 and 2E-08 for average and reasonable maximum exposures, respectively. The non-carcinogenic hazard index for potential future construction workers were 1E-02 for both the average and reasonable maximum exposure scenarios. Tables in Attachment 3 of Appendix C present the risks and hazard indices by chemical, exposure pathway, and scenario total for each scenario.

An ecological quotient (EQ) of 1 for black-tailed jackrabbits at the site indicates low probability of any adverse environmental effects from the COPCs at the site. Although no vegetation is currently on site, a quantitative environmental evaluation was conducted on the assumption that the site would be vegetated in the future, and that exposure to site contaminants would be possible through plant uptake and subsequent ingestion by animals, as well as by soil ingestion. Methodology for the EQ method is presented in Appendix K of the *RA Report* (Radian, 1992b); calculated plant and jack-rabbit uptake and EQs are presented in Tables C.2-3 and C.2-4 of Appendix C.

4.4.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the results of quantitative risk assessment (acceptable or unacceptable risk), and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

A release to the soil has occurred at SWMU 123; however, the impact of the release is minimal. Of primary concern are the TRPH concentrations of 1500 mg/kg (4-6 ft) and 4510 mg/kg (8-11 ft) in samples from boring 123-B01 and 1930 mg/kg (8-10 ft) from boring 123-B02. However, TRPH concentrations in the overlying soil and adjacent borings are all less than the detection limit, suggesting that TRPH contamination is restricted to a small area. The results of the quantitative risk assessment indicates that the SWMUs do not pose an unacceptable risk to human health or the environment.

4.4.5 Recommendations

SWMUs 21 and 22 were recommended for NFA while SWMU 123 was recommended for CNFA. Not included in the 1994 Draft Final Phase I Table 2 RFI Report was the fact that SWMUs 21, 22, and 123 were all removed as part of Holloman AFB's Phase II Basewide POL project. No contaminated soil was encountered during the removal of SWMUs 21 or 22. TPH values for closure samples ranged from not detected to 40 mg/kg. A more detailed account was provided in the *Final Closure Report for Phase II Remediation of (POL) Contaminated Sites and OWS and WOT Removals, Holloman Air Force Base, New Mexico* submitted in July 1997. Approximately 228 cubic yards of TPH-contaminated soil was excavated and disposed during the remediation of SWMU 123. TPH values for closure samples ranged from not detected to 32 mg/kg, excluding one sample (4100 mg/kg) which was taken immediately adjacent to the foundation. No further excavation could be accomplished without impacting the integrity of the building. A more detailed account will be provided in the *Addendum to the Final Closure Report for Phase II Remediation of (POL) Contaminated Sites and O/WS and WOT Removals, Holloman Air Force Base, New Mexico* to be submitted in September 1997.

4.5 SWMU 32—Building 868 Oil/Water Separator SWMU 125—Building 868 Fire Water Tank

SWMUs 32 and 125 are on Table 2 of Holloman AFB's HSWA permit. The SWMUs have been in operation since 1986 with no history of release. No halon vapor monitoring system is present, and no previous investigation has been conducted at these SWMUs. For this investigation, four borings were drilled in the potentially affected area immediately surrounding the SWMUs. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human health or the environment. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

No further action is recommended for SWMUs; a Class 3 permit modification request will be completed by Holloman AFB to achieve no further action.

4.5.1 SWMU Description

Physical Features—As shown in Figure 4.5-1, SWMUs 125 and 32 are located approximately 10 and 15 ft west of Building 868,

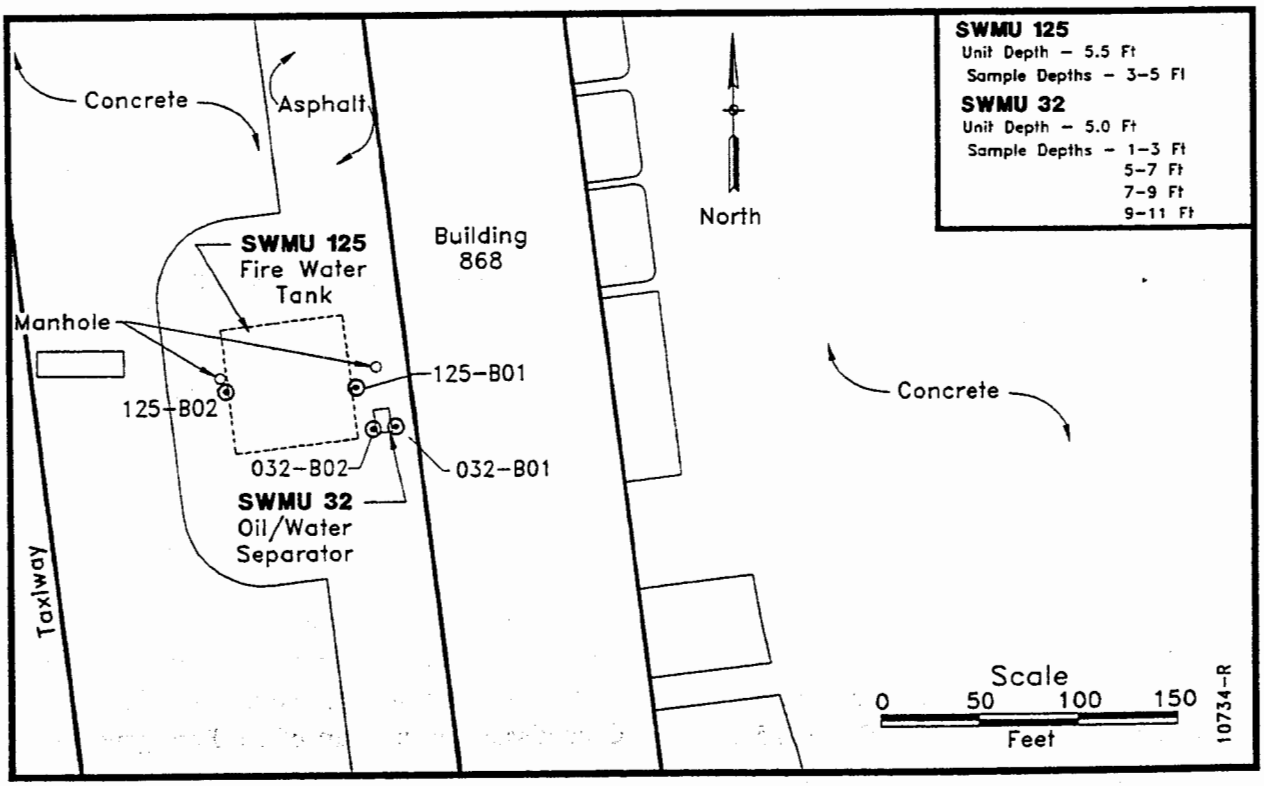


Figure 4.5-1. SWMUs 32 and 125 Features and Sampling Locations

respectively. Both SWMUs are adjacent to a taxiway. The top of SWMU 32 is level with the ground and surrounded by asphalt. SWMU 125 is also surrounded by asphalt, but rises several inches above the ground surface. The base of SWMUs 32 and 125 are 5 ft and 5.5 ft, respectively.

Unit Description—The oil/water separator (SWMU 32) consists of a steel two-chamber unit located in a 3- by 4- by 5-ft concrete vault. The total capacity of the unit is approximately 22 gal. The ground surface inside the vault is covered with drain rock and was wet when inspected. The fire water tank (SWMU 125) consists of a large underground concrete tank measuring approximately 50 by 50 by 5.5 ft, with a total capacity of 100,000 gal. Waste oil and fuel skimmed from the water in the first chamber of the separator is transferred by gravity flow to the second chamber of the separator. The water is discharged to the sewer system. When high volumes of water and fire suppressant are required in the hangars, a bypass valve is engaged and the drainage is redirected to SWMU 125. Liquids from the tank are then pumped through the oil/water separator and treated as described above.

Waste Description—The oil/water separator receives wash water from hanger floors, containing waste oil, fuel, and fire suppressants.

Release History—There is no record of a release at the site. However, stained soils were observed adjacent to the oil/water separator during drilling activities at SWMU 32, indicating that a release may have occurred. No evidence of leakage from the Fire Water Tank was observed during drilling.

4.5.2 SWMU Investigation and Results

Four soil borings were drilled at the site, two at each SWMU, as shown in Figure 4.5-1. Split spoon samples were collected every 2 ft to a depth of 4 ft below the base of the units. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D.

At SWMU 32, chemical analytical samples were collected from intervals at the base unit (5-7 ft bgl), and from the interval 4 ft below the base of the unit (9-11 ft bgl). As required by the *Work Plan* (Radian, 1993), samples were also collected from 7 to 9 ft gl in Boring 32-B01, and from 1 to 3 ft bgl in Boring 32-B02 because these intervals were visibly contaminated. At SWMU 125, samples could not be collected from either the tank's base or 4 ft below the base of the tank because the sampling matrix was gravel and there was no recovery in the split spoon after repeated attempts. An organic vapor reading of 0.0 ppm, however, was obtained at SWMU 125 from screening splitspoon and headspace using the OVM. A soil sample for geotechnical analysis was collected from one of the borings.

Geotechnical results are provided in Appendix E. In addition to soil sampling, the contents of both the fire water tank and the oil/water separator were sampled and submitted for chemical analysis in order to characterize the chemical nature.

Geology and Hydrogeology

The subsurface conditions at SWMUs 125 and 32 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand, silt, and gravel. Sand and sandy silt surround the oil water separator, whereas the fire water tank is surrounded entirely by gravel fill. Groundwater occurs in sand at approximately 8 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for VOCs, TRPH, and metals. Seven samples were analyzed for semivolatile organic compounds because they were visibly contaminated. Summary analytical results are presented in Tables 4.5-1 and 4.5-2. The sludge samples from SWMU 32 were analyzed by TCLP for VOCs, semivolatile organic compounds, metals, and for ignitability. The sludge sample from SWMU 125 was an aqueous matrix, so leaching (i.e., TCLP) was not appropriate. This sample was analyzed for VOCs, semivolatile organic compounds, metals, and ignitability. Sludge sample results for SWMUs 32 and 125 are presented in Tables 4.5-3 and 4.5-4, respectively.

TRPH was detected in 6 samples. All detected concentrations were below trigger criteria. Several VOCs were detected at concentrations below or near detection limits. Acetone and methylene chloride were detected in most of the samples, but were also detected at similar concentrations in associated method blanks, so their presence in the samples is likely to be due to low level laboratory contamination. No VOCs were detected at concentrations above trigger criteria.

A variety of semivolatile organic compounds were detected at ppb levels in several samples. All detected concentrations of semivolatile organic compounds were below trigger criteria.

Arsenic, lead, and chromium were detected at concentrations above background UTLs in several samples. However, none of the detected concentrations for these metals, which occur naturally in background soils, exceed trigger criteria.

None of the organic or inorganic constituents were identified, since COPCs were not identified through the risk screen and TRPH concentrations were below the New Mexico cleanup level of 1000 mg/kg.

4.5.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMUs 125 and 32 to help determine the need for further investigation at the site on the basis of potential health risk. Potential exposure pathways and receptors were identified and COPCs were selected.

The land surrounding the unit is zoned for the operation and maintenance of air craft (*Management Action Plan*, Radian, 1993). The SWMUs are covered with concrete and asphalt, so fugitive dust generation and dermal contact with soil are not a problem. Additionally, since all but the tops of the units are underground, a release would be expected to affect subsurface rather than surface soil. However, volatiles may be generated from any subsurface contamination caused by a release. Therefore, on-site workers may be exposed to contamination through inhalation of volatiles. Base residents may also be exposed via inhalation of volatiles; however, due to the small size of the units and the relative distance (2 miles) to Base residential areas, this pathway is assumed to be insignificant.

Groundwater flow in this part of the Base is to the south-southwest. Surface runoff from the SWMUs drains to the Base storm sewer system. There are no complete pathways involving groundwater and surface water.

Table 4.5-1
Analytical Results for Soil Samples—SWMU 32

Location ID		032-B01		032-B01		032-B01		032-B02		032-B02		032-B02	
Sample ID		032-B01-01-01		032-B01-02-01		032-B01-03-01		032-B02-01-01		032-B02-02-01		032-B02-03-01	
Beg. Depth-End Depth (ft)		5-7		7-9		9-11		1-3		5-7		9-11	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)													
Hydrocarbons	[1000]	554	(32.6)	42.5 B	(33.1)	< DL	(34.2)	724	(30.9)	198	(27.3)	< DL	(34.6)
SW8240 - Volatile Organics (µg/kg)													
2-Hexanone	[NS]	7.14 J	(7.38)	ND	(7.48)	ND	(7.74)	ND	(6.95)	ND	(6.22)	ND	(3.97)
4-Methyl-2-pentanone (MIBK)	[$4x10^6$]	5.42	(3.29)	ND	(3.33)	ND	(3.45)	ND	(3.1)	ND	(2.77)	ND	(2.21)
Acetone	[$8x10^6$]	75.9 B	(19.2)	11.5 BJ	(19.4)	11.6 BJ	(20.1)	73.9 B	(18)	11.2 BJ	(16.1)	9.76 BJ	(34)
Benzene	[$2.4x10^4$]	ND	(1.31)	0.972 J	(1.33)	ND	(1.37)	ND	(1.23)	ND	(1.1)	ND	(2.09)
Carbon disulfide	[$8x10^6$]	ND	(3.47)	3.66	(3.52)	ND	(3.64)	1.19 J	(3.27)	ND	(2.92)	ND	(5.56)
Ethyl benzene	[$8x10^6$]	0.335 J	(1.26)	ND	(1.27)	ND	(1.32)	ND	(1.18)	ND	(1.06)	ND	(2.2)
Methyl ethyl ketone	[$4.8x10^7$]	11.1	(9.22)	ND	(9.34)	2.3 J	(9.67)	12.5	(8.68)	ND	(7.76)	ND	(4.52)
Methylene chloride	[$9.3x10^4$]	4.75 B	(2.72)	8.89 B	(2.76)	6.4 B	(2.85)	2.21 BJ	(2.56)	2.09 BJ	(2.29)	ND	(1.91)
Toluene	[$1.6x10^7$]	0.399 J	(2.59)	0.766 J	(2.62)	ND	(2.72)	ND	(2.44)	ND	(2.18)	ND	(2.06)
Xylene (total)	[$1.6x10^8$]	0.555 J	(5.82)	ND	(5.91)	ND	(6.11)	ND	(5.49)	ND	(4.91)	ND	(4.46)
SW8270 - Semivolatile Organics (µg/g)													
Anthracene	[$2.4x10^4$]	ND	(0.0332)	ND	(0.0339)	ND	(0.0349)	0.0125 J	(0.0317)	0.0102 J	(0.0278)	ND	(0.0355)
Benzo(a)anthracene	[.96]	ND	(0.0259)	ND	(0.0264)	ND	(0.0272)	0.0369	(0.0247)	ND	(0.0217)	ND	(0.0276)
Benzo(a)pyrene	[.096]	ND	(0.0346)	ND	(0.0353)	ND	(0.0364)	0.0552	(0.033)	ND	(0.029)	ND	(0.037)
Benzo(b)fluoranthene	[.96]	ND	(0.0457)	ND	(0.0467)	ND	(0.0481)	0.117 F	(0.0437)	ND	(0.0383)	ND	(0.0488)
Benzo(k)fluoranthene	[9.59]	ND	(0.0479)	ND	(0.0489)	ND	(0.0503)	0.117 F	(0.0457)	ND	(0.0401)	ND	(0.0511)
Chrysene	[96]	ND	(0.0431)	ND	(0.044)	ND	(0.0453)	0.0614	(0.0412)	ND	(0.0362)	ND	(0.0461)
Fluoranthene	[3200]	ND	(0.0257)	ND	(0.0262)	ND	(0.027)	0.0593	(0.0245)	0.0128 J	(0.0215)	ND	(0.0274)
Phenanthrene	[NS]	ND	(0.0287)	ND	(0.0293)	ND	(0.0302)	0.0328	(0.0274)	0.0143 J	(0.0241)	ND	(0.0307)
Pyrene	[2400]	ND	(0.0308)	ND	(0.0314)	ND	(0.0324)	0.0948	(0.0294)	0.0277	(0.0258)	ND	(0.0329)
bis(2-Ethylhexyl)phthalate	[50]	0.284	(0.116)	ND	(0.118)	ND	(0.122)	0.0861 J	(0.11)	ND	(0.0969)	ND	(0.123)
SW6010 - Metals (mg/kg)													
Barium	[84.36,5600]	42.8	(0.0554)	19.8	(0.0528)	67.9	(0.0531)	40.8	(0.0534)	23.4	(0.0468)	56.8	(0.0535)
Cadmium	[80]	0.869 B	(0.275)	< DL	(0.262)	< DL	(0.263)	0.574 B	(0.265)	0.416 B	(0.232)	0.302 B	(0.265)
Chromium	[$6.6,8x10^4$]	8.18 B	(0.261)	3.36 B	(0.249)	8.48 B	(0.25)	7.43 B	(0.252)	6.24 B	(0.221)	6.95 B	(0.252)
SW7060 - Arsenic (mg/kg)													
Arsenic	[6.88,24]	5.46	(0.331)	3.45	(0.325)	3.66	(0.359)	6.04	(0.342)	5.35	(0.256)	3.16	(0.364)
SW7421 - Lead (mg/kg)													
Lead	[12.3,500]	11.7 S	(0.974)	1.95 SB	(0.0957)	3.36 S	(0.212)	116 S	(4.03)	4.38 S	(0.302)	2.28 SB	(0.107)
SW7740 - Selenium (mg/kg)													
Selenium	[10.53,400]	1.61 S	(0.25)	2.03 S	(0.246)	1.99 S	(0.272)	1.79 S	(0.259)	1.49 S	(0.194)	0.851 S	(0.275)

Table 4.5-1 (Continued)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets[ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
C = Confirming data obtained using second GC.
DL = Detection limit.
F = Benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. Results are for the sum of both compounds.
J = Analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

Table 4.5-2
Analytical Results for Soil Samples—SWMU 125

Location ID		125-B01		125-B02	
Sample ID		125-B01-01-01		125-B02-01-01	
Beg. Depth-End Depth (ft)		3-5		3-5	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)					
Hydrocarbons	[1000]	410	(29)	734	(30.6)
SW8240 - Volatile Organics (µg/kg)					
Acetone	[$8x10^6$]	10.1 BJ	(17.2)	8.42 BJ	(30.5)
Methylene chloride	[$9.3x10^4$]	6.15 B	(2.44)	ND	(1.71)
Toluene	[$1.6x10^7$]	0.958 J	(2.32)	ND	(1.84)
Trichloroethene	[NS]	0.844 J	(3.73)	ND	(3.44)
Xylene (total)	[$1.6x10^8$]	0.625 J	(5.23)	ND	(4)
SW8270 - Semivolatile Organics (µg/g)					
2-Methylnaphthalene	[NS]	0.016 J	(0.0226)	NA	
Benzo(a)anthracene	[.96]	0.0444	(0.0232)	NA	
Benzo(a)pyrene	[.096]	0.078	(0.031)	NA	
Benzo(b)fluoranthene	[.96]	0.147 F	(0.0409)	NA	
Benzo(g,h,i)perylene	[NS]	0.0317 J	(0.044)	NA	
Benzo(k)fluoranthene	[9.59]	0.147 F	(0.0429)	NA	
Chrysene	[96]	0.0517	(0.0386)	NA	
bis(2-Ethylhexyl)phthalate	[50]	0.0244 J	(0.103)	NA	
Fluoranthene	[3200]	0.0571	(0.023)	NA	
Indeno(1,2,3-cd)pyrene	[0.96]	0.027 J	(0.0344)	NA	
Phenanthrene	[NS]	0.0228 J	(0.0257)	NA	
Pyrene	[2400]	0.0568	(0.0276)	NA	
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	41.6	(0.0426)	34.3	(0.0473)
Cadmium	[80]	0.521 B	(0.211)	0.554 B	(0.234)
Chromium	[$6.6,8x10^4$]	9.12 B	(0.201)	7.77 B	(0.223)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	7.18	(0.285)	5.18	(0.32)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	61.4 S	(3.36)	18 S	(0.377)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	2.06 S	(0.216)	1.55 S	(0.242)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
F = Benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. Results reported are for the sum of both compounds.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

Table 4.5-3
Analytical Results for Sludge Sample—SWMU 32

Location ID		032-U01	
Sample ID		032-U01-01-01	
SW8240 - TCLP Volatile Organics (μg/L)			
Chloroform	[$6x10^3$]	1.82	(0.332)
Methyl ethyl ketone	[$2x10^5$]	10.9	(1.22)
Trichloroethene	[$5x10^2$]	0.36	(0.352)
SW6010 - TCLP Metals (mg/L)			
Arsenic	[5.0]	0.0308 B	(0.0225)
Barium	[100]	1.44 SB	(0.00053)
Chromium	[5.0]	0.0399	(0.00249)
SW7470 - TCLP Mercury (mg/L)			
Mercury	[0.2]	0.00006	(0.000048)
SW1020 - Ignitability (Closed-Cup) (°F)			
Ignitability		>140	NS

Note: TCLP regulatory levels are presented in brackets [ ].

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

Table 4.5-4
Analytical Results for Sludge Sample—SWMU 125

Location ID		125-U01	
Sample ID		125-U01-01-01	
SW8240 - Volatile Organics (μg/L)			
4-Methyl-2-pentanone (MIBK)	[NS]	45	(3)
Methylene chloride	[NS]	0.89 BJ	(1)
SW8270 - Semivolatile Organics (μg/L)			
2,4-Dimethylphenol	[NS]	0.954 J	(1.05)
4-Methylphenol/3-Methylphenol	[$2x10^5$]	1.52 F	(0.475)
Dibutylphthalate	[NS]	2.79	(0.644)
bis(2-Ethylhexyl)phthalate	[NS]	2.53 J	(3.46)
SW6010 - Metals (mg/L)			
Barium	[100]	0.0871	(0.00053)
Cadmium	[1.0]	0.00487 B	(0.00172)
Chromium	[5.0]	0.0076	(0.00249)
Lead	[5.0]	0.0303 B	(0.027)
SW7740 - Selenium (mg/L)			
Selenium	[1.0]	0.00574 S	(0.000843)
SW1020 - Ignitability (Closed-Cup) (°F)			
Ignitability		>140	(NS)

Note: TCLP regulatory levels are presented in brackets [ ].
( ) = Detection limit.
B = Analyte detected in associated blank analyses.
F = 4-Methylphenol and 3-methylphenol co-elute.
J = Analyte detected at concentration below the detection limit.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in subsurface soil were below Region III screening criteria, so there are no COPCs for these SWMUs.

The area offers no habitat for animals; therefore, there are no on-site ecological concerns. In future scenarios, if soil contaminants migrate to the groundwater, which is approximately 4 ft bgl, plants may take up contaminants through their root systems so wildlife could be exposed to contamination via ingestion of potentially contaminated plants. However, due to the small size of the unit and limited subsurface soil contamination, it is highly unlikely that wildlife is adversely impacted by the SWMUs.

4.5.4 Conclusions

Conclusions are based on a comparison of the results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

Although the presence of visibly contaminated soil provides some evidence of a release from the SWMUs, no constituents were detected at levels exceeding trigger criteria in any of the samples from this site, including samples collected from the stained interval from 6.5 to 6.8 ft bgl. Furthermore, the area surrounding the SWMU is completely paved with asphalt and concrete, so the soil is virtually inaccessible.

None of the detected constituents were identified as COPCs by the risk screen, so the SWMUs are unlikely to pose a risk to human receptors. The SWMUs provide no habitat for wildlife, so ecological receptors are not expected to be impacted.

4.5.5 Recommendations

NFA is recommended for SWMUs 32 and 125. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Subsequent to the submission of the 1994 Draft Final Phase I Table 2 RFI Report, SWMU 32 was removed. No remediation was required since it was encased in a concrete vault. SWMU 125 was constructed to store water from fire suppression testing activities, not solid waste. SWMU 125 was also found to have good integrity and is therefore recommended for NFA.

[This page intentionally left blank.]

4.6 SWMU 36—Building 1001 Oil/Water Separator
SWMU 126—Building 1001 Waste Oil Tank

SWMUs 126 and 36 are on Table 2 of Holloman AFB's HSWA permit. The units were installed in 1982 and are still in operation. No previous investigation has been conducted at these SWMUs. For this investigation, four borings were drilled in the potentially affected area immediately surrounding the SWMUs. Analytical results indicate that none of the detected constituents, except TRPH, exceed risk-based trigger criteria. A TRPH concentration above the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB was detected in one sample at SWMU 36, indicating that a potential release has occurred.

One exposure pathway (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a

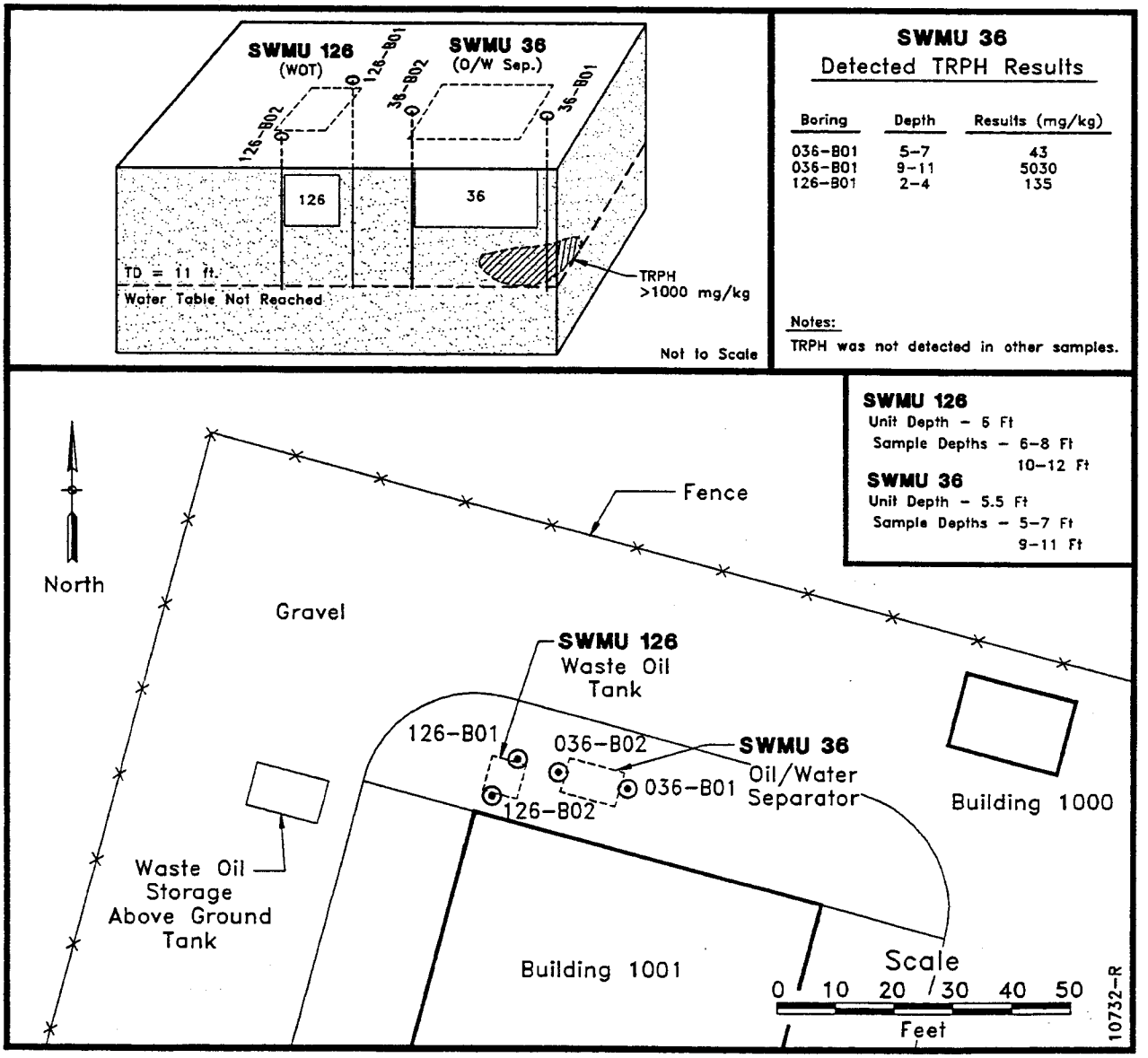


Figure 4.6-1. SWMUs 36 and 127 Features and Sampling Locations

significant risk to human health or the environment. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

Although no COPCs were identified through the risk-based screen, CNFA is recommended for the SWMUs, the CNFA is remediation of the TRPH-contaminated soil.

4.6.1 SWMU Description

Physical Features—As shown in Figure 4.6-1, SWMUs 126 and 36 are located approximately 5 ft north of Building 1001. The top of the oil/water separator is at ground level and is surrounded by gravel. The waste oil tank lies below grade and is covered with gravel. The depths of SWMUs 126 and 36 are 6.0 ft and 5.5 ft, respectively.

Unit Description—The waste oil tank (SWMU 126) was not visible from the surface, and its size, construction material, and age are unknown. The oil/water separator (SWMU 36) is constructed of steel and has a capacity of approximately 350 gal.

Waste Description—The oil/water separator receives rinse water and waste oil from Building 1001. Waste oil skimmed from the water in the oil/water separator is transferred by gravity flow to the adjacent waste oil tank via a subsurface pipe, and water is discharged to the sewer system.

Release History—No past release from the SWMUs was identified through a literature search and an initial site visit. Stained soil observed from 5 to 7 ft bgl in 36-B02 may indicate that an isolated release has occurred. Soils in the other three site borings were not visually contaminated.

4.6.2 SWMU Investigation and Result

Four soil borings were drilled at the SWMUs, as shown in Figure 4.6-1. Split spoon samples were collected every 2 ft to 12 ft bgl (4 ft below the units). Each interval was logged and screened using an OVM. Boring logs with screening results are located in Appendix D. Chemical analytical samples were collected from 2-4 ft bgl in one boring for SWMU 126, at the base of the units (5-7 ft bgl for SWMU 36, and 6-8 ft bgl for SWMU 126), and from 4 ft below the base of the units (9-11 ft bgl for SWMU 36, and 10-12 ft bgl for SWMU 126). A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E. Sludge samples were collected from both SWMUs in order to characterize their contents.

Geology and Hydrogeology

The subsurface conditions at SWMUs 126 and 36 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and silt. Caliche lenses, ranging in thickness from 2-4 in., are interbedded with the sand and silt. Groundwater was not encountered in the borings. Groundwater in this part of the Base generally flows to the west, and is at a depth of approximately 20 ft.

Analytical Results

All samples were analyzed for VOCs, TRPH, and metals. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report: Semivolatile analyses were inadvertently not performed. However, due to this oversight, Holloman AFB performed 8270 analysis during the remediation of these SWMUs during the Basewide Phase II POL project. Summary analytical results are presented in

Tables 4.6-1 and 4.6-2 for SWMUs 36 and 126, respectively. A sample from each unit was collected and analyzed for ignitability, semivolatile organic compounds, and metals. Although results were compared with TCLP regulatory levels, the samples were not leached (i.e., TCLP) because the oil matrix (i.e., SWMU 36) was not amenable to this procedure and the sample from SWMU 126 was primarily an aqueous matrix, so leaching (i.e., TCLP) was not appropriate. Sludge sample results are presented in Tables 4.6-3 and 4.6-4 for SWMUs 36 and 126, respectively.

Acetone was detected in several samples at concentrations up to 965 μg/kg. Methylene chloride was detected at concentrations near detection limits. Methyl ethyl ketone was detected in the samples, but was also detected in associated method blanks, so its presence in the samples is probably biased slightly high from low level laboratory contamination. All detected concentrations of these constituents are below trigger criteria.

Chromium, lead, and mercury were detected at concentrations above UTLs for background in a few samples. However, none of the detected concentrations of metals exceeded trigger criteria.

None of the detected constituents were identified as COPCs by the risk screen.

TRPH was detected in three samples. All detected concentrations were below trigger criteria, except in the sample from 9 to 11 ft in 036-B01, which had a TRPH concentration of 5030 mg/kg. TRPH in this sample, however, could not be correlated with any visibly contaminated soil observed during drilling. Stained soil was noted in samples collected from 2 to 4 ft in 126-B01 and from 5 to 7 ft in 036 B02; however, the New Mexico cleanup standard of 1000 mg/kg was not exceeded in either of these samples.

4.6.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMUs 126 and 36 to help determine the need for further investigation based on potential human health or ecological risk. Potential exposure pathways and receptors were identified and the COPCs were selected.

The units are located in an area of the Base zoned for airfield use (Horizons 2000 Facility Improvement Plan II, 1987). There are employees located in nearby buildings. The area around the SWMUs is covered with gravel, so fugitive dust generation and dermal contact with soil are expected to be minimal. Additionally, since all but the tops of the units are underground, a release would be expected to affect subsurface rather than surface soil. However, volatiles may be generated in the units and from any subsurface contamination caused by a release. Therefore, on-site workers may be exposed to contamination through inhalation of volatiles. Base residents may also be exposed via inhalation of volatiles, however; because of the small size of the units and the relative distance (≈2 miles) to Base residential areas, this pathway is assumed to be insignificant.

Groundwater flow in this part of the Base is to the west. Surface runoff from the SWMUs percolates into the ground or drains to nearby paved areas and enters the Base storm sewer system. There are no complete pathways involving groundwater and surface water.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in

Table 4.6-1
Analytical Results for Soil Samples—SWMU 36

Location ID		036-B01		036-B01		036-B02		036-B02	
Sample ID		036-B01-01-01		036-B01-02-01		036-B02-01-01		036-B02-02-01	
Beg. Depth-End Depth (ft)		5-7		9-11		5-7		9-11	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	43	(30.4)	5030	(150)	< DL	(32.3)	< DL	(31.1)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	479	(3.06)	23.3 B	(1.52)	15.4 B	(1.63)	469	(3.16)
Methyl ethyl ketone	[$4.8x10^7$]	9.03 B	(1.68)	10.3 B	(1.55)	10.6 B	(1.65)	12.1 B	(1.59)
Methylene Chloride	[$9.3x10^4$]	5.03	(2.89)	4.79	(2.65)	16.8	(2.83)	3.49	(2.72)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	33.7	(0.0492)	40.6	(0.0552)	27.2	(0.0558)	37.4	(0.0478)
Chromium	[$6.6,8x10^4$]	5.29	(0.232)	6.89	(0.26)	4.15	(0.263)	7.12	(0.225)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	0.878 S	(0.284)	0.924 S	(0.269)	0.908 S	(0.298)	1.02 S	(0.3)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	2.35 S	(0.099)	2.34 S	(0.188)	2.08 S	(0.104)	2.72 S	(0.209)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0146)	0.0151	(0.0145)	< DL	(0.0154)	< DL	(0.015)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.93 S	(0.254)	2.77 S	(0.241)	2.56 S	(0.266)	0.901 S	(0.268)

Note: The UTLs and Subpart S action level are presented, respectively, in brackets [ ]; [ ] = Trigger criteria for organics, [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

B = Analyte detected in associated blank analyses.
NS = Not analyzed.
DL = Detection limit.
S = Analyte concentration obtained using MSA.

Table 4.6-2
Analytical Results for Soil Samples—SWMU 126

Location ID	126-B01		126-B01		126-B01		126-B02		126-B02	
Sample ID	126-B01-01-01		126-B01-02-01		126-B01-03-01		126-B02-01-01		126-B02-02-01	
Beg. Depth-End Depth (ft)	2-4		6-8		10-12		6-8		10-12	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)										
Hydrocarbons [1000]	135	(33.4)	< DL	(29.6)	< DL	(30.9)	< DL	(29.7)	< DL	(31.1)
SW8240 - Volatile Organics (ug/kg)										
Acetone [$8x10^6$]	965	(95.9)	17.7 B	(1.49)	27.3 B	(1.56)	13.6 B	(1.48)	33.1 B	(1.58)
Methyl ethyl ketone [$4.8x10^7$]	8.98 B	(1.71)	8.58 B	(1.52)	8.23 B	(1.58)	6.89 B	(1.5)	8.92 B	(1.6)
Methylene chloride [$9.3x10^4$]	2.66 J	(2.93)	ND	(2.6)	ND	(2.71)	ND	(2.58)	ND	(2.75)
SW6010 - Metals (mg/kg)										
Barium [84.36,5600]	32.1	(0.0644)	33.9	(0.0576)	37.9	(0.0581)	27	(0.0513)	35.5	(0.055)
Chromium [6.6,$8x10^4$]	5.88	(0.304)	6.75	(0.272)	8.17	(0.274)	4.7	(0.242)	6.37	(0.259)
SW7060 - Arsenic (mg/kg)										
Arsenic [6.88,24]	1.4 S	(0.297)	0.339 S	(0.282)	0.971 S	(0.673)	0.869 S	(0.288)	0.809 S	(0.241)
SW7421 - Lead (mg/kg)										
Lead [12.3,500]	13.6 S	(0.517)	1.9 S	(0.098)	2.49 S	(0.187)	4.74 S	(0.201)	3.36 S	(0.168)
SW7471 - Mercury (mg/kg)										
Mercury [NS,24]	< DL	(0.016)	< DL	(0.0143)	0.0185	(0.0148)	< DL	(0.0143)	< DL	(0.015)
SW7740 - Selenium (mg/kg)										
Selenium [10.53,400]	2.79 S	(0.266)	3.02 S	(0.252)	1.85 S	(0.24)	0.0328 SJ	(0.258)	0.0204 SBJ	(0.225)

Note: The UTLs and Subpart S action levels are presented, respectively, in brackets [ ]; [ ] = Trigger criteria for organics, [,] = UTL, trigger criteria for inorganics.

NS = Not analyzed.
( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
S = Analyte concentration obtained using MSA.

Table 4.6-3
Analytical Results for the Sludge Sample—SWMU 36

Location ID		036-U01	
Sample ID		036-U01-01-01	
SW8240 - Volatile Organics (μg/L)			
Ethyl benzene	[NS]	24500	(1250)
Methylene chloride	[NS]	2990 B	(1250)
Xylene (total)	[NS]	24600	(1250)
SW8270 - Semivolatile Organics (μg/g)			
2-Methylnaphthalene	[NS]	402	(2.9)
Acenaphthene	[NS]	17.1	(3.2)
Anthracene	[NS]	2.21 J	(3.82)
Dibenzofuran	[NS]	26.7	(2.77)
Dibutylphthalate	[NS]	0.563	(0.495)
bis(2-Ethylhexyl)phthalate	[NS]	6.86	(2.66)
Fluorene	[NS]	18	(2.29)
Naphthalene	[NS]	122	(3.86)
Phenanthrene	[NS]	24.9	(3.3)
Pyrene	[NS]	1.58	(0.708)
SW6010 - Metals (mg/kg)			
Barium	[100]	8.63	(0.0573)
Cadmium	[1.0]	0.608 B	(0.284)
Chromium	[5.0]	4.42	(0.27)
Lead	[5.0]	6.07 B	(2.45)
SW7471 - Mercury (mg/kg)			
Mercury	[0.2]	0.018 B	(0.0048)
SW1020 - Ignitability (Closed-Cup) (°F)			
Ignitability		>140	NS

Note: TCLP regulatory levels are presented in brackets [ ].

Results greater than trigger criteria are shaded.

NS = Not specified.
( ) = Detection limit.
B = Analyte detected in associated blank analyses.
J = Estimated concentration, analyte detected at concentration below the detection limit.

Table 4.6-4
Analytical Results for the Sludge Sample—SWMU 126

Location ID		126-U01	
Sample ID		126-U01-01-01	
SW8240 - Volatile Organics (μg/L)			
Acetone	[NS]	3350	(200)
Methylene chloride	[NS]	173 B	(50)
SW8270 - Semivolatile Organics (μg/L)			
2,4-Dimethylphenol	[NS]	160	(9.09)
2-Methylnaphthalene	[NS]	388	(6.55)
2-Methylphenol	[2×10^5]	292	(3.54)
4-Methylphenol/3-Methylphenol	[2×10^5]	128 F	(4.11)
Butylbenzylphthalate	[NS]	35.5	(20.6)
Dibutylphthalate	[NS]	16.9	(5.58)
bis(2-Ethylhexyl)phthalate	[NS]	1120	(29.9)
Fluoranthene	[NS]	6.47 J	(6.65)
Indene	[NS]	25.7	(7.21)
Naphthalene	[NS]	337	(8.7)
Phenol	[NS]	27.4	(4.2)
Pyrene	[NS]	33.4	(7.98)
SW6010 - Metals (mg/L)			
Barium	[100]	0.0258	(0.00053)
SW7740 - Selenium (mg/L)			
Selenium	[1.0]	0.00342 S	(0.000843)
SW7470 - Mercury (mg/L)			
Mercury	[0.2]	0.00018	(0.000048)
SW1020 - Ignitability (Closed-Cup) (degF)			
Ignitability		>140	(NS)

Note: TCLP regulatory levels are presented in brackets [ ].

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
F = 4-Methylphenol and 3-Methylphenol co-elute.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NS = Not analyzed.
S = Analyte concentration obtained using MSA.

subsurface soil are below Region III screening criteria, so there are no COPCs for the SWMUs.

The area is too small and has too little vegetation to serve as habitat or forage for animals, and the surrounding area is fenced. Ecological exposure may occur via inhalation of ambient air migrating from the site and from ingestion of potentially contaminated vegetation, should soil contaminants migrate to groundwater. However, because of the small size of the SWMUs and limited contamination in subsurface soil, wildlife are not expected to be adversely impacted by the site.

4.6.4 Conclusions

Conclusions are based on a comparison of the results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

A release to the soil has occurred at SWMU 36; however, the impact of the units is minimal. The primary concern is the TRPH concentration of 5030 mg/kg in the sample from 9 to 11 ft at 036-B01. TRPH concentrations in the overlying soil and adjacent borings, however, were all less than 135 mg/kg, suggesting that TRPH contamination is restricted to a small area. The other soil analytical results do not provide strong evidence that a release of other constituents has occurred.

4.6.5 Recommendations

SWMU 126 was recommended for NFA and SWMU 36 was recommended for CNFA. However, both SWMUs were removed as part of Holloman AFB's Basewide POL Phase I project in September 1996. Approximately 185 cubic yards of TPH-contaminated soil were excavated and disposed. TPH closure samples ranged from not detected to 67 mg/kg. No semivolatile compounds were detected in any of the closure samples or the stockpiled soil. BTEX was detected in one closure sample, but only at 0.5 mg/kg. Further details can be found in the *Final Closure Report for Phase II Remediation of (POL) Contaminated Sites and O/WS and WOT Removals, Holloman Air Force Base, New Mexico* submitted in July 1997.

4.7 SWMU 39—Building 1092 Oil/Water Separator
SWMU 127—Building 1092 Waste Oil Tank
SWMU 135—Building 1092 Oil/Water Separator Drainage Pit

SWMUs 127 and 135 are on Table 2 of Holloman AFB's HSWA permit. SWMU 39 was originally on Table 3 of the HSWA permit, however a Class 1 permit modification was submitted 23 July 1993 to move SWMU 39 from Table 3 to Table 2. The SWMUs are part of IRP Site 31, which was investigated during 1988 and 1989. Groundwater monitoring conducted during the 1989 investigation indicated the presence of contamination, as summarized in the *Remedial Investigation Report* (Walk Haydel, and Associates, Inc., 1989). For the Table 2 investigation, four soil borings were drilled in the potentially contaminated areas around SWMUs 39 and 127, and two hand auger samples were collected from the bottom of SWMU 135. Analytical results indicate the presence of TRPH and BTEX contamination in the soil at borings at

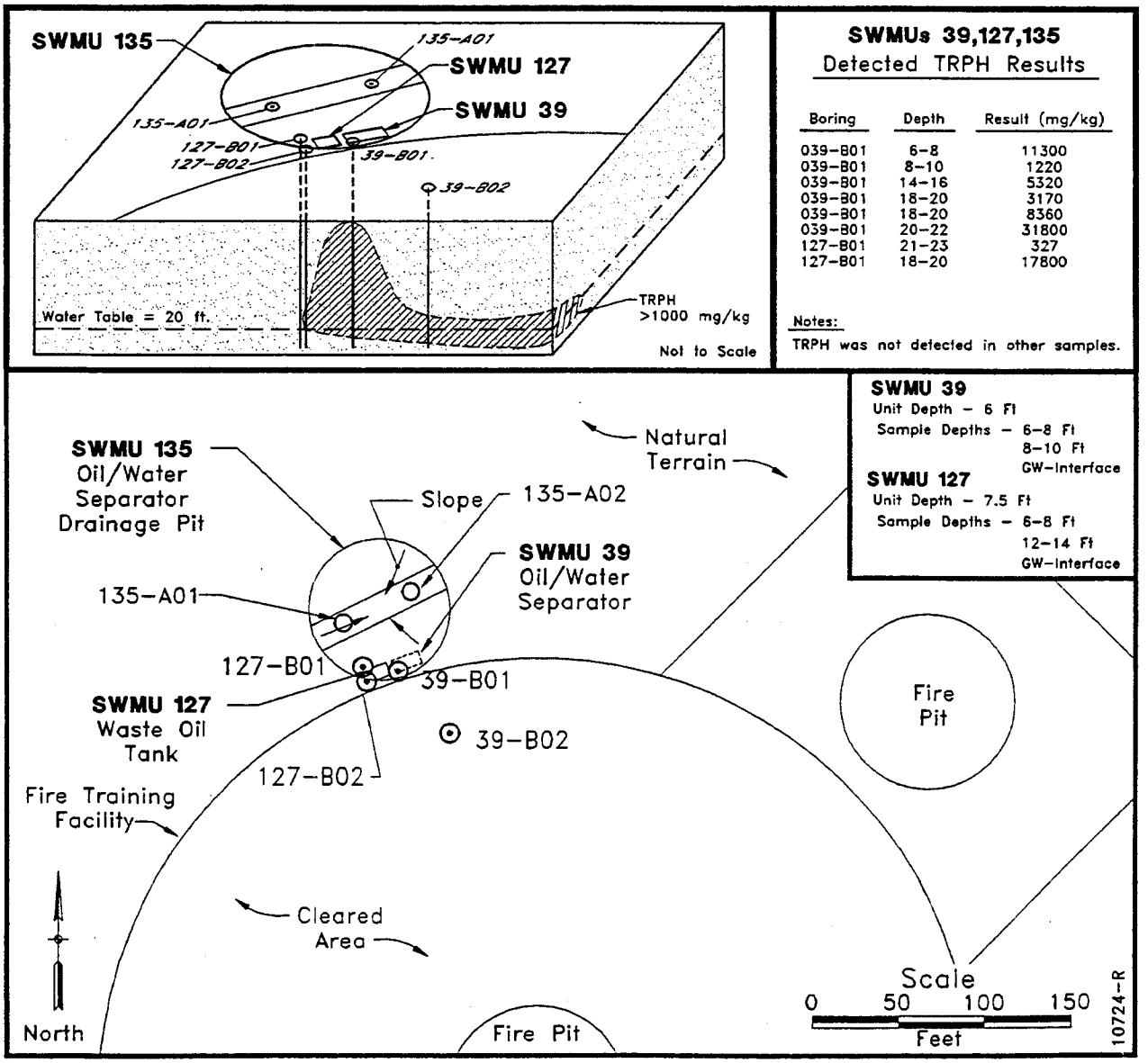


Figure 4.7-1. SWMUs 39, 127, and 135 Features and Sampling Locations

SWMUs 127 and 39 and in the surface soil samples at SWMU 135.

The qualitative risk assessment indicates that due to surface soil contamination at SWMU 135, employees exposed during training activities or future construction activities should be assessed for exposure via inhalation, dermal contact with soil, and incidental ingestion of soil. In addition, although the SWMUs are fenced, animals can gain access and wildlife may be exposed via inhalation, ingestion of soil, ingestion of potentially contaminated plants and dermal contact with soil. Inhalation and dermal contact are difficult to quantify and generally contribute less to the risk than do ingestion pathways.

Further investigation has been planned to determine the extent of TRPH contamination in soil and groundwater.

4.7.1 SWMU Description

Physical Features—As shown in Figure 4.7-1, SWMUs 39, 127, and 135 are located approximately 250 ft north of the fire pit at the fire department training area. The separator and the tank are contained within the drainage pit, which is enclosed by a fence and occupies approximately 5000 sq ft. The base of the oil/water separator (SWMU 39) is 6.0 ft bgl and the base of the waste oil tank is 7.5 ft bgl.

Unit Description—The drainage pit (SWMU 135) is circular with a diameter of 70 ft and a depth of approximately 6 ft. It is unlined. The oil/water separator pit (SWMU 39), is surrounded by an approximately 4 ft sq open concrete box. The capacity of the oil/water separator is 200 gallons. The waste oil tank (i.e., SWMU 127) has a capacity of 500 gallons. The SWMUs have been in operation since 1979.

Waste Description—Fuel and fire water were routed to the drainage pit from the fire training area via an underground pipe. Fuels and oils skimmed from the water in the oil/water separator were transferred by gravity flow to the waste oil tank via a subsurface pipe. The water remaining in the separator was then discharged into the drainage pit by gravity flow.

Release History—No past release from the SWMUs was identified through a literature search and halon vapor monitoring records are not available for the waste oil tank. However, waste oil constituents were detected in the surficial soil and groundwater during previous investigations.

4.7.2 Site Investigation and Results

Four soil borings were drilled at SWMUs 39 and 127, and two hand auger samples were collected from SWMU 135, as shown in Figure 4.7-1. Split spoon samples were collected from the borings at two ft intervals until groundwater was encountered. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D.

Chemical analytical samples were collected from the intervals at the base of the units (6-8 ft bgl) for SWMUs 39 and 127, 4 ft below the base of the units, and the groundwater interface (approximately 20 ft bgl). The most visibly contaminated of the remaining intervals was also sampled for chemical analysis. The two hand auger samples were collected from 0-1 ft bgl in SWMU 135. A soil sample for geotechnical analysis was collected from one boring. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 39, 127, and 135 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and clay with varying amounts of silt. The soils were stained beginning at a depth of approximately 6 ft in borings adjacent to the pit, and at a depth of approximately 20 ft in the boring approximately 50 ft south of the pit.

Groundwater occurs in silty clay approximately 20 ft bgl. Groundwater in this part of the Base generally flows to the south-southwest.

Analytical Results

All samples were analyzed for TRPH, volatile organic compounds, and metals. Thirteen samples were analyzed for semivolatile organic compounds because they were visibly contaminated. Summary analytical results are presented in Tables 4.7-1, 4.7-2, and 4.7-3, for SWMUs 39, 127, and 135, respectively.

Several volatile organic compounds were detected at concentrations near or below detection limits. All volatile organic compounds were detected at concentrations below trigger criteria. Chloromethane and methylene chloride were measured in several samples, but the measurements were below the detection limit and the analyses was also found at similar concentrations in associated method blanks, so their presence in most of the samples is uncertain and likely to be due to low level laboratory contamination. Acetone was detected in several samples at concentrations greater than those detected in associated method blanks. Carbon disulfide, dibromomethane, and methyl ethyl ketone were detected at ppb levels in several samples. Benzene, ethyl benzene, toluene, and xylenes were detected at ppm levels in several samples.

Semivolatile organic compounds were detected in several samples at ppb levels; many were detected at concentrations below sample-specific detection limits. All semivolatile organic compounds were detected at concentrations below trigger criteria.

All detected metals were at concentrations below trigger criteria. Barium and mercury were detected in several samples at concentrations above UTLs, but below trigger criteria.

TRPH were detected at concentrations above trigger criteria in most of the site samples. The location of samples with elevated concentrations of TRPH correlate well with the distribution of stained soils observed during drilling at the SWMUs (Figure 4.7-1). The most prevalent staining was observed in the separator drainage pit (SWMU 135) and at boring 039-B01 located adjacent to the oil/water separator (SWMU 39). TRPH concentrations exceeding the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB were detected in all samples collected from these locations. Staining was observed at greater depths in the soil at the waste oil tank (SWMU 127) and at boring 039-B02, which is located approximately 50 ft south of the oil/water separator. Elevated levels of TRPH at these locations are generally confined to samples collected at, or immediately above, the groundwater interface, indicating that TRPH-contamination may attenuate with depth.

Table 4.7-1
Analytical Results for Soil Samples—SWMU 39

Location ID		039-B01		039-B01		039-B01		039-B01	
Sample ID		039-B01-01-01		039-B01-02-01		039-B01-03-01		039-B01-04-01	
Beg. Depth-End Depth (ft)		6-8		8-10		14-16		18-20	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	11300	(203)	1220	(43)	5320	(151)	3170	(42.7)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	276	(2.04)	236	(2.18)	ND X	(7.38)	316	(2.17)
Benzene	[$2.4x10^4$]	27	(2.35)	4.85	(2.5)	176 X	(8.49)	182	(2.49)
Carbon disulfide	[$8x10^6$]	10.4	(3.53)	20.7	(3.75)	12.1 XJ	(12.7)	12.1	(3.74)
Dibromomethane	[NS]	17.6	(3.06)	14.9	(3.26)	71.2	(11)	4.23	(3.24)
Ethyl benzene	[$8x10^6$]	8350	(3850)	1500	(1030)	191000	(2890)	27700	(4070)
Methyl ethyl ketone	[$4.8x10^7$]	38.3	(2.08)	40.6	(2.21)	ND X	(7.5)	40.3	(2.2)
Methylene chloride	[$9.3x10^4$]	0.918 BJ	(3.56)	ND	(3.79)	ND X	(12.8)	1.35 BJ	(3.77)
Toluene	[$1.6x10^7$]	5300	(2420)	333 J	(644)	197000	(1810)	13500	(2550)
Xylene (total)	[$1.6x10^8$]	39800 B	(7510)	7740 B	(2000)	340000	(5630)	54300 B	(7930)
SW8270 - Semivolatile Organics (µg/g)									
2-Methylnaphthalene	[NS]	13.2	(0.934)	0.724 J	(0.952)	6.97	(0.695)	1.24	(1)
Acenaphthene	[4800]	ND	(1.03)	ND	(1.05)	ND	(0.765)	ND	(1.1)
Anthracene	[$2.4x10^4$]	ND	(1.23)	ND	(1.25)	ND	(0.913)	ND	(1.32)
Dibenzofuran	[NS]	1.18	(0.891)	ND	(0.908)	0.416 J	(0.663)	ND	(0.956)
Diethylphthalate	[$6.4x10^4$]	ND	(0.408)	ND	(0.416)	ND	(0.303)	ND	(0.438)
Fluoranthene	[3200]	ND	(0.949)	ND	(0.966)	ND	(0.705)	ND	(1.02)
Fluorene	[3200]	0.609 J	(0.738)	ND	(0.752)	ND	(0.549)	ND	(0.791)
Naphthalene	[NS]	1.74	(1.24)	ND	(1.26)	0.772 J	(0.923)	ND	(1.33)
Phenanthrene	[NS]	ND	(1.06)	ND	(1.08)	0.369 J	(0.79)	ND	(1.14)
Pyrene	[2400]	ND	(1.14)	ND	(1.16)	ND	(0.846)	ND	(1.22)
p-Chloroaniline	[$3.2x10^5$]	2.87	(1.51)	ND	(1.54)	ND	(1.12)	ND	(1.62)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	120	(0.0588)	134	(0.066)	52.3	(0.0493)	74.3	(0.0639)
Cadmium	[80]	< DL	(0.292)	< DL	(0.327)	< DL	(0.244)	< DL	(0.317)
Chromium	[$6.6,8x10^4$]	16.2	(0.277)	18.5	(0.311)	9.45 B	(0.232)	12.8	(0.301)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	0.493	(0.364)	< DL	(0.352)	< DL	(0.257)	< DL	(0.376)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	7.59 S	(0.128)	9.82 SB	(0.122)	3.66 S	(0.0899)	3.97 S	(0.13)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0197)	0.0216 B	(0.0207)	< DL	(0.0145)	< DL	(0.0207)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	3.11	(0.328)	4.63	(0.314)	2.38	(0.231)	2.49	(0.333)

Table 4.7-1 (Continued)

Location ID		039-B02		039-B02		039-B02		039-B02	
Sample ID		039-B02-01-01		039-B02-02-01		039-B02-03-01		039-B02-04-01	
Beg. Depth-End Depth (ft)		8-10		14-16		18-20		20-22	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(32)	< DL	(41)	8360	(152)	31800	(749)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	10.5 B	(1.62)	13.2 B	(2.07)	169	(7.64)	30.6 B	(7.46)
Benzene	[$2.4x10^4$]	ND	(1.87)	ND	(2.38)	8730	(4370)	7970 J	(21500)
Carbon disulfide	[$8x10^6$]	ND	(2.8)	ND	(3.58)	ND	(13.2)	ND	(12.9)
Dibromomethane	[NS]	ND	(2.43)	ND	(3.1)	ND	(11.4)	ND X	(11.2)
Ethyl benzene	[$8x10^6$]	1.71 J	(1.79)	ND	(2.29)	193000	(2900)	186000	(14300)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(1.65)	ND	(2.11)	ND	(7.76)	ND	(7.57)
Methylene chloride	[$9.3x10^4$]	ND	(2.82)	ND	(3.61)	ND	(13.3)	4.99 BJ	(13)
Toluene	[$1.6x10^7$]	3.11	(1.84)	ND	(2.35)	184000	(1820)	177000	(8960)
Xylene (total)	[$1.6x10^8$]	2.54 J	(3.94)	ND	(5.03)	373000	(5650)	360000	(27800)
SW8270 - Semivolatile Organics (µg/g)									
2-Methylnaphthalene	[NS]	NA		ND	(0.032)	22	(0.556)	83.2	(0.644)
Acenaphthene	[4800]	NA		ND	(0.0352)	ND	(0.612)	0.671 J	(0.709)
Anthracene	[$2.4x10^4$]	NA		ND	(0.0421)	ND	(0.731)	0.524 J	(0.846)
Dibenzofuran	[NS]	NA		ND	(0.0305)	0.922	(0.531)	3.07	(0.614)
Diethylphthalate	[$6.4x10^4$]	NA		ND	(0.014)	ND	(0.243)	0.517	(0.281)
Fluoranthene	[3200]	NA		ND	(0.0325)	ND	(0.565)	0.309 J	(0.654)
Fluorene	[3200]	NA		ND	(0.0253)	0.609	(0.44)	2.35	(0.509)
Naphthalene	[NS]	NA		ND	(0.0426)	4.02	(0.739)	31	(0.856)
Phenanthrene	[NS]	NA		ND	(0.0364)	1.01	(0.632)	2.83	(0.732)
Pyrene	[2400]	NA		ND	(0.039)	ND	(0.678)	0.329 J	(0.784)
p-Chloroaniline	[$3.2x10^5$]	NA		ND	(0.0518)	3.7	(0.9)	ND	(1.04)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	44.3	(0.0501)	58	(0.0616)	58.1	(0.0437)	42.5	(0.0492)
Cadmium	[80]	0.255 B	(0.248)	< DL	(0.306)	< DL	(0.217)	< DL	(0.244)
Chromium	[$6.6,8x10^4$]	5.14	(0.236)	12.1	(0.291)	9.37	(0.206)	7.76	(0.232)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	< DL	(0.263)	2.18	(0.343)	< DL	(0.244)	0.213	(0.2)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	1.07 SB	(0.0915)	4.21 S	(0.119)	3.97 S	(0.0846)	1.85 SB	(0.0714)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0154)	< DL	(0.0197)	< DL	(0.0146)	0.0208 B	(0.0143)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.05	(0.235)	2.82	(0.307)	1.84	(0.217)	0.865	(0.182)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using MSA.
X = Recovery of the internal standard used to quantitate this analyte concentration was low.

Table 4.7-2
Analytical Results for Soil Samples—SWMU 127

Location ID		127-B01		127-B01		127-B01		127-B01	
Sample ID		127-B01-01-01		127-B01-02-01		127-B01-03-01		127-B01-04-01	
Beg. Depth-End Depth (ft)		6-8		13-15		18-20		21-23	
E418.1—Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(30.4)	< DL	(32.9)	< DL	(28.5)	372	(34.2)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	49.6 B	(1.52)	165	(1.67)	95.1 B	(1.43)	ND	(165)
Benzene	[$2.4x10^4$]	ND	(1.75)	1.12 J	(1.92)	ND	(1.65)	879	(10.1)
Carbon disulfide	[$8x10^6$]	ND	(2.62)	3.18	(2.88)	ND	(2.47)	ND	(26.9)
Chloromethane	[$5.4x10^5$]	2.58 B	(2.47)	ND	(2.71)	ND	(2.32)	ND	(14.5)
Ethyl benzene	[$8x10^6$]	ND	(1.68)	2.45	(1.84)	ND	(1.58)	16200	(324)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(1.55)	16.9	(1.7)	7.44	(1.46)	ND	(21.9)
Methylene chloride	[$9.3x10^4$]	2.31 J	(2.65)	ND	(2.91)	ND	(2.49)	ND	(9.24)
Toluene	[$1.6x10^7$]	ND	(1.73)	ND	(1.89)	ND	(1.62)	1340	(203)
Xylene (total)	[$1.6x10^8$]	ND	(3.69)	ND	(4.05)	ND	(3.47)	21800	(632)
SW8270 - Semivolatile Organics (µg/g)									
2-Methylnaphthalene	[NS]	NA		ND	(0.0257)	ND	(0.0222)	1.49	(0.0266)
Dibenzofuran	[NS]	NA		ND	(0.0245)	ND	(0.0212)	0.0723	(0.0254)
Fluorene	[3200]	NA		ND	(0.0203)	ND	(0.0176)	0.0385	(0.0211)
Naphthalene	[NS]	NA		ND	(0.0341)	ND	(0.0295)	0.543	(0.0354)
Phenanthrene	[NS]	NA		ND	(0.0292)	ND	(0.0252)	ND	(0.0303)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	109	(0.0506)	87.1	(0.0591)	19.7	(0.0382)	30.1	(0.0452)
Chromium	[$6.6.8x10^4$]	19.7	(0.239)	10.5 B	(0.278)	4 B	(0.18)	6.74 B	(0.213)
Silver	[0.73,400]	< DL	(0.16)	< DL	(0.187)	0.149 B	(0.121)	< DL	(0.143)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	7.18	(0.265)	2.68	(0.325)	< DL	(0.277)	2.13	(0.316)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	8.82 S	(0.312)	2.75 S	(0.0959)	1.99 SB	(0.0817)	1.66 SB	(0.093)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0146)	< DL	(0.0158)	< DL	(0.0136)	< DL	(0.0164)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.86	(0.199)	2.79	(0.246)	< DL	(0.211)	2.06	(0.238)

Table 4.7-2 (Continued)

Location ID		127-B02		127-B02		127-B02		127-B02	
Sample ID		127-B02-01-01		127-B02-02-01		127-B02-03-01		127-B02-04-01	
Beg. Depth-End Depth (ft)		6-8		12-14		16-18		18-20	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(39)	< DL	(31)	< DL	(31.1)	17800	(459)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	93.8	(1.97)	1710	(103)	1540	(103)	ND	(7640)
Benzene	[$2.4x10^4$]	ND	(2.26)	ND	(1.8)	ND	(1.81)	13500	(6600)
Carbon disulfide	[$8x10^6$]	ND	(3.39)	ND	(2.7)	18.2	(2.72)	160	(19.1)
Chloromethane	[$5.4x10^5$]	1.28 BJ	(3.19)	ND	(2.54)	1.33 BJ	(2.56)	15.6 BJ	(18)
Ethyl benzene	[$8x10^6$]	ND	(2.17)	ND	(1.73)	ND	(1.74)	250000	(4380)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(2)	ND	(1.59)	38	(1.6)	ND	(11.3)
Methylene chloride	[$9.3x10^4$]	0.851 BJ	(3.42)	0.531 BJ	(2.73)	ND	(2.74)	8.04 BJ	(19.3)
Toluene	[$1.6x10^7$]	ND	(2.23)	ND	(1.78)	ND	(1.79)	76200	(2750)
Xylene (total)	[$1.6x10^8$]	ND	(4.77)	ND	(3.8)	ND	(3.82)	351000	(8540)
SW8270 - Semivolatile Organics (µg/g)									
2-Methylnaphthalene	[NS]	NA		NA		ND	(0.0242)	47	(0.996)
Dibenzofuran	[NS]	NA		NA		ND	(0.0231)	2.07	(0.95)
Fluorene	[3200]	NA		NA		ND	(0.0191)	1.16	(0.787)
Naphthalene	[NS]	NA		NA		ND	(0.0322)	9.46	(1.32)
Phenanthrene	[NS]	NA		NA		ND	(0.0275)	0.87 J	(1.13)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	121	(0.0706)	81.6	(0.0509)	96.5	(0.0546)	122	(0.0723)
Chromium	[$6.6,8x10^4$]	14.1	(0.333)	10.7 B	(0.24)	13.9	(0.257)	17.5	(0.341)
Silver	[0.73,400]	< DL	(0.223)	< DL	(0.161)	< DL	(0.172)	< DL	(0.228)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	2.01	(0.371)	< DL	(0.247)	< DL	(0.267)	1.58	(0.404)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	6.12 S	(0.129)	3.04 S	(0.0863)	4.71 S	(0.0924)	6.24 S	(0.139)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0188)	< DL	(0.0148)	< DL	(0.015)	0.0463 B	(0.0222)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.57	(0.331)	2.13	(0.221)	1.79	(0.237)	2.65	(0.357)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using MSA.

Table 4.7-3
Analytical Results for Soil Samples—SWMU 135

Location ID		135-A01		135-A02	
Sample ID		135-A01-01-01		135-A02-01-01	
Beg. Depth-End Depth (ft)		0-1		0-1	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)					
Hydrocarbons	[1000]	11600	(348)	16000	(693)
SW8240 - Volatile Organics (μg/kg)					
Benzene	[2.4×10^4]	6770	(2500)	1000	(10.9)
Carbon disulfide	[8×10^6]	ND	(2350)	19.4 J	(29)
Ethyl benzene	[8×10^6]	31000	(1660)	63000	(823)
Toluene	[1.6×10^7]	8110	(1040)	58500	(516)
Xylene (total)	[1.6×10^8]	58900	(3230)	119000	(1280)
SW8270 - Semivolatile Organics (μg/g)					
2-Methylnaphthalene	[NS]	6.17	(0.0811)	NA	
4-Methylphenol/3-Methylphenol	[NS]	0.197 F	(0.0509)	NA	
Chrysene	[96]	0.0742 J	(0.138)	NA	
bis(2-Ethylhexyl)phthalate	[50]	1.15	(0.371)	NA	
Naphthalene	[NS]	3.85	(0.108)	NA	
Phenanthrene	[NS]	0.303	(0.0922)	NA	
Pyrene	[2400]	0.0923 J	(0.0988)	NA	
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	227	(0.0571)	92.2	(0.055)
Cadmium	[80]	0.344 B	(0.283)	< DL	(0.273)
Chromium	[$6.6,8 \times 10^4$]	25.3	(0.269)	12.7	(0.259)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	10.5	(0.277)	3.9	(0.368)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	19.8 S	(0.817)	6.99 S	(0.217)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	1.51	(0.21)	2.27	(0.278)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in blank analyses.
DL = Detection limit.
F = 4-methylphenol and 3-methylphenol co-elute; the result reported is the sum of the two compounds.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using MSA.

4.7.3 Risk Assessment Results

The risk assessment for these SWMUs will not be performed until further investigation is completed. For this investigation, receptors and pathways were identified.

Groundwater in this part of the Base flows to the southwest. It is not expected to reach Lake Holloman or the Sewage Lagoons which are over two miles from the site. SWMU 135 acts as a secondary containment structure for SWMU 127; however, SWMU 135 itself has no secondary containment structures and is in direct contact with soil. Surface water runoff tends to pond at SWMU 135 and evaporate or infiltrate the soil. The land surrounding the units is used as a fire department training area. The units are over 1 mile from the Main Base area and there are no regular employees on the site. Since there are no on-site employees and the training area is currently not used there are no regular on-site receptors. Residents in the main base area are approximately 3 miles from the FTA and are, therefore, too far away to be impacted by volatiles and fugitive dust.

The qualitative risk assessment indicates that due to surface soil contamination at SWMU 135, employees exposed during training activities or future construction activities should be assessed for exposure via inhalation, dermal contact with soil, and incidental ingestion of soil. In addition, although the SWMUs are fenced, animals can gain access and wildlife may be exposed via inhalation, ingestion of soil, ingestion of potentially contaminated plants and dermal contact with soil. Inhalation and dermal contact are difficult to quantify and generally contribute less to the risk than do ingestion pathways.

4.7.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

TRPH concentrations above the New Mexico standard of 1000 mg/kg were prevalent in the surface soil at SWMU 135 and in the subsurface soil at 039-B01. Elevated TRPH concentrations were also detected in samples near the groundwater table in three of the four borings at SWMUs 39 and 127 (i.e., 39-B01, 39-B02, and 127-B02). The highest level of TRPH contamination (31800 mg/kg) was detected in a sample collected just above the water table at 20-22 ft in 039-B02, which is located approximately 50 ft hydraulically downgradient of the site. This indicates that TRPH contamination attenuates with depth and may be migrating along the water table away from the site. An oily sheen noted in groundwater grab samples collected from previously installed monitoring wells at the site supports this interpretation. Although no other detected constituents were above risk-based trigger criteria, further investigation is planned to better characterize the TRPH contamination and to quantify risks.

4.7.5 Recommendations

The following information was not available for the 1994 Draft Final Phase I Table 2 RFI Report. Additional investigation was conducted at these SWMUs in 1995 as part of the Table 1 Phase II RFI. Ten soil borings were drilled during the Table 1 Phase II RFI in order to delineate the horizontal and vertical extent of contamination. TRPH ranged from not detected to 11,500 mg/kg. Maximum detections for BTEX were: benzene (4.5 ppm), toluene, (0.36 ppm), ethylbenzene (2.3 ppm), and xylenes (0.56 ppm). The highest concentrations of the chlorinated solvents were: 1,1,1-trichloroethane (2.0), 1,1-dichloroethane (0.06 ppm), 1,1-dichloroethene (0.01 ppm), and trichloroethene (0.001 ppm). Further information can be found in the *Final*

Phase II RCRA Facility Investigation Report, Table 1 Solid Waste Management Units submitted in June 1997. In addition, these SWMUs along with SWMU 170, are undergoing remediation using a bioventing system constructed in June 1996. The approved *Final Construction Workplan for IRP Site FT-31, Fire Training Area Bioventing System, Holloman Air Force Base, New Mexico, July 1997* details the construction and remediation strategy for these SWMUs. The system is scheduled to operate through 1998.

4.8 SWMU 40—Building 1166 Oil/Water Separator
SWMU 128—Building 1166 Waste Oil Tank
SWMU 138—Building 1166 Oil/Water Separator Drainage Pit

SWMUs 40, 138, and 128 are on Table 2 of Holloman AFB's HSWA permit. The units were in operation from an unknown date until 1992. The results of a halon vapor monitoring system installed in October 1991 indicate that no leakage has occurred from the waste oil tank (SWMU 128); therefore, this SWMU was not investigated. A vapor monitoring system is not installed and no previous investigation has been conducted at SWMUs 40 and 138. For this investigation, three soil borings were drilled in the potentially affected areas immediately surrounding the SWMU 40 and the discharge line, and hand auger samples were collected from SWMU 138. Analytical results indicate that none of the detected constituents, except TRPH, exceed risk-based trigger criteria. A TRPH concentration above the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB was detected in one sample in the vicinity of the drain pipe outfall at SWMU 138. TRPH was not detected above trigger criteria at other sampling locations, however, indicating that the affected soil is confined to a very small area.

One exposure pathway (inhalation of volatiles in the ambient air) and one receptor (on-site workers) were identified through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust,

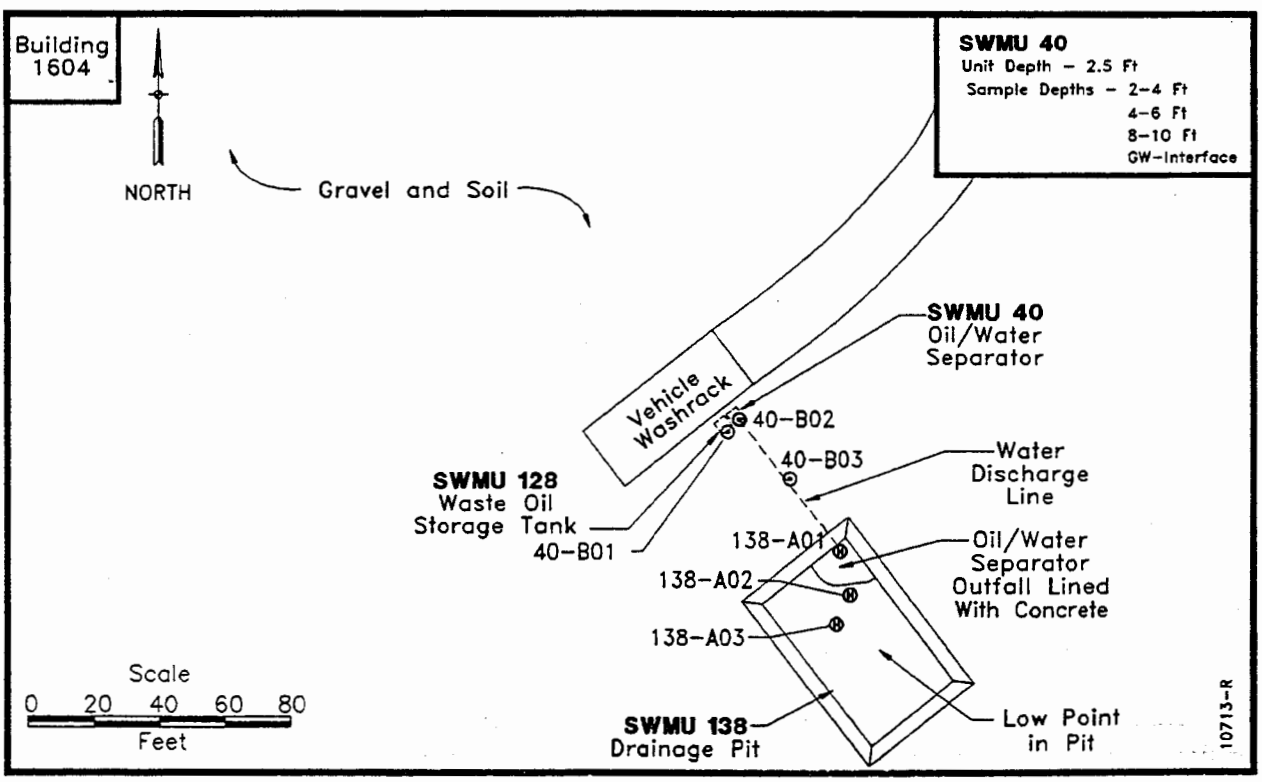


Figure 4.8-1. SWMUs 40, 128, and 138 Features and Sampling Locations

and is, therefore, typically used to screen contaminant concentrations.

Although arsenic was detected as a COPC, all detected constituents, with the exception of TRPH, are below trigger criteria. CNFA is recommended for the SWMUs. The condition of CNFA is remediation of the TRPH-contaminated soil.

4.8.1 SWMU Description

Physical Features—As shown in Figure 4.8-1, SWMUs 40, 128, and 138 are located approximately 200 ft south and slightly east of Building 1604. SWMUs 40 and 128 are located immediately adjacent to the vehicle washrack. The drainage pit (SWMU 138) is situated approximately 50 ft southeast of the washrack. The base of the oil/water separator is 2.5 ft bgl.

Unit Description—The oil/water separator (i.e., SWMU 40) is constructed of steel and has a capacity of approximately 22 gal. The waste oil tank (i.e., SWMU 128) is constructed of steel and has an approximate capacity of 250 gal. The drainage pit (SWMU 138) is an unlined excavation approximately 20 ft wide, 40 ft long, and 6 ft deep. The waste oil tank is connected in line with the waste oil tank. Overflow from the waste oil tank is transferred via an underground pipe to the drainage pit.

Waste Description—The separator receives rinsate containing water, oils, detergents, and fuels from the washrack. Oils and fuels skimmed from the water in the oil/water separator is transferred by gravity to the waste oil tank via a subsurface pipe. The water remaining in the separator is then discharged to the unlined drainage pit via a subsurface pipe.

Release History—During its period of operation, there were no reported spills or remedial action at the site. A records search conducted in 1992 and visual inspection of the site during the RFI did not indicate a release.

4.8.2 SWMU Investigation and Results

Three soil borings were drilled at SWMU 40 and the discharge line, and hand auger samples were collected from three locations at SWMU 138, as shown on Figure 4.8-1. In the borings, split spoon samples were collected every 2 ft to a depth of 4 ft below the base of the unit (40-B01 and 40-B02) or to the groundwater interface (40-B03). Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D.

Chemical analytical samples were collected from the intervals at the base of SWMU 40 (2-4 ft) and 4 ft below the base of the unit (4-6 ft), and from the intervals with the highest OVM reading (8-10 ft) and intersecting groundwater (24-26 ft). Hand auger samples were collected from SWMU 138. The initial sample location is underlain by concrete at a depth of approximately 2.5 ft, so a 2-4 ft sample was collected from a nearby location. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 40, 128, and 138 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of silty sand and sandy clay. Groundwater occurs in sand at approximately 26 ft. Groundwater in this part of the Base generally flows to the south toward the Lost River Basin.

Analytical Results

All samples were analyzed for TRPH, VOCs, and metals. The hand auger samples from

SWMU 138 were analyzed for semivolatile organic compounds because they were visibly contaminated. Summary analytical results are presented in Tables 4.8-1 and 4.8-2 for SWMUs 40 and 138, respectively.

Chloromethane and methylene chloride were detected in one or more samples and at similar concentrations in associated method blanks, so their presence in the samples is likely to be due to low-level laboratory contamination. Acetone and methyl ethyl ketone were detected at concentrations higher than in the method blanks in one or more samples; these results may include a slightly high bias from low level laboratory contamination. None of the detected concentrations of VOCs exceeded trigger criteria.

Barium, cadmium, chromium, lead, and mercury were detected above UTLs in several samples. However, no detected concentrations of metals exceeded trigger criteria.

TRPH were detected only in the two surface samples from SWMU 138. The TRPH concentration in one sample exceeded the trigger criterion.

4.8.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMUs 40, 128, and 138 to help determine the need for further investigation on the basis of potential health risk. Potential exposure pathways, receptors, and COPCs were identified.

SWMUs 128 and 40 are installed in the ground. A buried pipe leads from SWMU 40 to SWMU 138, which is unlined, but does have a concrete apron extending 5-10 ft from the pipe outfall. The concrete apron is buried beneath approximately 1 ft of soil and covers only a small area. The area around the SWMUs consists of native soil and sparse vegetation, so fugitive dust generation does occur. Volatiles may be generated in the units and from any soil contaminated by a release from the units.

There are no on-site employees, and the washrack associated with the units is not officially in use, so there are no regular on-site receptors. Casual use of the facility has been observed, so employees using the facility occasionally could be exposed via inhalation, dermal contact with soil, and incidental ingestion of soil. Employees in nearby buildings could be exposed via inhalation of fugitive dust and volatiles. Base residents are too far away to be impacted by volatiles or fugitive dust migrating from the site.

Surface runoff from the SWMUs is unlikely to infiltrate the soil to groundwater. There are no complete pathways for groundwater or surface water.

Although arsenic was detected as a COPC, all detected constituent concentrations in soil are below EPA Region III screening criteria, so there are no health-based COPCs for these SWMUs.

Potential ecological concerns arising from this site include inhalation of volatiles released to the air by soil and groundwater, ingestion of soil while grooming and foraging, dermal contact with soil, and ingestion of potentially contaminated plants. Inhalation and dermal contact are difficult to quantify in animals and generally contribute less to the risk than do ingestion pathways. The minimal contamination at the SWMUs is unlikely to pose a risk to wildlife.

Table 4.8-1
Analytical Results for Soil Samples—SWMU 40

Location ID		040-B01		040-B01		040-B02		040-B02		040-B03		040-B03	
Sample ID		040-B01-01-01		040-B01-02-01		040-B02-01-01		040-B02-02-01		040-B03-01-01		040-B03-02-01	
Beg. Depth-End Depth (ft)		2-4		4-6		2-4		4-6		8-10		24-26	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)													
Hydrocarbons	[1000]	< DL	(33.8)	< DL	(35.7)	< DL	(32.6)	< DL	(36.4)	< DL	(28.7)	< DL	(32.7)
SW8240 - Volatile Organics (µg/kg)													
Acetone	[$8x10^6$]	58.7	(1.73)	15.9 B	(1.8)	18.9	(1.64)	375	(42.9)	7.31 BJ	(16.9)	15.7 B	(1.64)
Chloromethane	[$5.4x10^5$]	ND	(2.81)	ND	(2.92)	8.51 B	(2.66)	ND	(7.89)	ND	(6.17)	ND	(2.66)
Methyl ethyl ketone	[$4.8x10^7$]	14.9 B	(1.76)	13.1 B	(1.83)	11.2 B	(1.67)	ND	(10.4)	ND	(8.11)	10.7 B	(1.67)
Methylene chloride	[$9.3x10^4$]	2.94 J	(3.01)	5.91	(3.13)	8.38	(2.85)	12	(3.06)	0.843 BJ	(2.39)	22.6	(2.86)
SW6010 - Metals (mg/kg)													
Barium	[84.36,5600]	56	(0.0652)	48.2	(0.0526)	82.2	(0.0576)	16	(0.0708)	75.9	(0.0523)	27.1	(0.0505)
Chromium	[$6.6,8x10^4$]	7.04	(0.307)	3.14	(0.248)	7.87	(0.271)	2.52 B	(0.334)	8.87	(0.247)	3.51	(0.238)
SW7060 - Arsenic (mg/kg)													
Arsenic	[6.88,24]	1.42	(0.281)	2.15	(0.317)	2.1 S	(0.278)	0.467 S	(0.305)	1.98 S	(0.29)	0.264 S	(0.269)
SW7421 - Lead (mg/kg)													
Lead	[12.3,500]	4.62 S	(0.196)	1.7 S	(0.218)	4.59 S	(0.194)	0.114 S	(0.106)	4.83 S	(0.202)	1.07 S	(0.0935)
SW7471 - Mercury (mg/kg)													
Mercury	[-0.0006,24]	< DL	(0.0162)	< DL	(0.0171)	< DL	(0.0156)	< DL	(0.0174)	0.0259	(0.0138)	< DL	(0.0158)
SW7740 - Selenium (mg/kg)													
Selenium	[10.53,400]	3.7 S	(0.251)	2.27 SB	(0.256)	0.598 S	(0.248)	4.57 S	(0.272)	1.43 S	(0.259)	3.77 S	(0.24)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
S = Analyte concentration obtained using the MSA.

Table 4.8-2
Analytical Results for Soil Samples—SWMU 138

Location ID		138-A01		138-A02		138-A03		138-A03	
Sample ID		138-A01-01-01		138-A02-01-01		138-A03-01-01		138-A03-02-01	
Beg. Depth-End Depth (ft)		0-0.33		2-4		0-0.33		2-4	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	13400	(714)	< DL	(32.8)	298 B	(30.7)	< DL	(32.3)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10^6]	ND X	(21)	332	(93.3)	9210	(718)	983 B	(87.7)
Methylene chloride	[9.3x10^4]	2.58 BXJ	(2.98)	ND	(2.73)	0.691 BJ	(2.55)	0.897 BJ	(2.69)
SW8270 - Semivolatile Organics (μg/g)									
Benzo(g,h,i)perylene	[NS]	0.656 J	(0.939)	ND	(0.0295)	ND	(0.0277)	ND	(0.0291)
bis(2-Ethylhexyl)phthalate	[50]	3.41	(2.07)	ND	(0.065)	0.507	(0.061)	0.0542 J	(0.0641)
Fluoranthene	[3200]	ND	(0.87)	ND	(0.0273)	0.00782 J	(0.0257)	ND	(0.027)
Indeno(1,2,3-cd)pyrene	[0.96]	0.338 J	(0.736)	ND	(0.0232)	ND	(0.0217)	ND	(0.0229)
Pyrene	[2400]	ND	(0.619)	ND	(0.0195)	0.0106 J	(0.0183)	ND	(0.0192)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	306	(0.0574)	48.9	(0.0499)	134	(0.0501)	27.1	(0.0523)
Cadmium	[80]	27.9	(0.285)	< DL	(0.247)	4.07	(0.248)	0.32 B	(0.259)
Chromium	[6.6,8x10^4]	93.6	(0.271)	8.38 B	(0.235)	15	(0.236)	6.04 B	(0.247)
Silver	[0.73,400]	< DL	(0.182)	0.298 B	(0.158)	< DL	(0.158)	< DL	(0.165)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88.24]	5.72	(0.342)	2.76	(0.309)	3.66	(0.271)	1.06	(0.29)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	327 S	(8.66)	3.29 S	(0.156)	34 S	(1.37)	3.74 S	(0.147)
SW7471 - Mercury (mg/kg)									
Mercury	[-0.0006,24]	0.779	(0.0171)	< DL	(0.0158)	< DL	(0.0148)	< DL	(0.0156)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	3.31	(0.306)	3.67	(0.276)	2.42	(0.243)	3.58	(0.259)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.
X = Recovery of the internal standard used to quantitate this concentration was low.

4.8.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

It appears that a release to the soil has occurred at SWMU 138; however, the impact of the unit appears to be minimal. Of primary concern is the TRPH concentration of 13400 mg/kg in the surface soil sample at 138-A01. However, TRPH concentrations in the surface soil at other SWMU 138 sampling locations and in the surface and subsurface soil at borings around SWMU 40 are far below trigger criteria, indicating that contamination is restricted to a small area. Furthermore, the area surrounding 138-A01 is underlain by concrete at a depth of 2.5 ft, suggesting that subsurface contamination is highly unlikely. The remaining soil analytical results do not provide strong evidence that a release of other constituents has occurred.

4.8.5 Recommendations

The following information was not available for the 1994 Draft Final Phase I Table 2 RFI Report. SWMU 138 was recommended for CNFA and was remediated under the Basewide Phase I POL Remediation project. In July 1995, approximately 15 cubic yards of TPH-contaminated soil were excavated. No soil required disposal since the TPH did not exceed 1000 mg/kg. Confirmation TPH samples ranged from not detected to 30 mg/kg. No volatile organic compounds were detected. Further details of site activities can be found in *Remediation of POL-Contaminated Sites and Oil/Water Separator Removals, Holloman Air Force Base, New Mexico, July-November 1995* submitted February 1996. SWMUs 40 and 128 were recommended for NFA. However, since these units were no longer active, they were removed and remediated under Holloman AFB's Basewide Phase II POL project. TPH did not exceed 1000 mg/kg in any soil samples. Confirmation samples for TPH ranged from 32 mg/kg to 220 mg/kg. Further details can be found in the *Final Closure Report for Phase II Remediation of (POL) Contaminated Sites and O/WS and WOT Removals, Holloman Air Force Base, New Mexico* submitted in July 1997.

4.9 SWMU 54—Building 702 Waste Accumulation Area
SWMU 55—Building 702A Waste Accumulation Area

SWMUs 54 and 55 are on Table 2 of Holloman AFB's HSWA permit. SWMU 54 was in operation from 1955 to 1987. SWMU 55 has been in operation since 1987. According to interviews, some spills have occurred at the SWMUs. SWMU 54 was investigated in 1988 and 1989 (*RI Report:* Walk, Haydel, and Associates, Inc., 1989). The SWMUs are also adjacent to IRP Site 47, which was investigated in 1993 by Woodward-Clyde Consultants. For this investigation, samples were collected from three soil borings at SWMU 54 and two soil borings at SWMU 55. Analytical results indicate that all detected constituents are below trigger criteria at

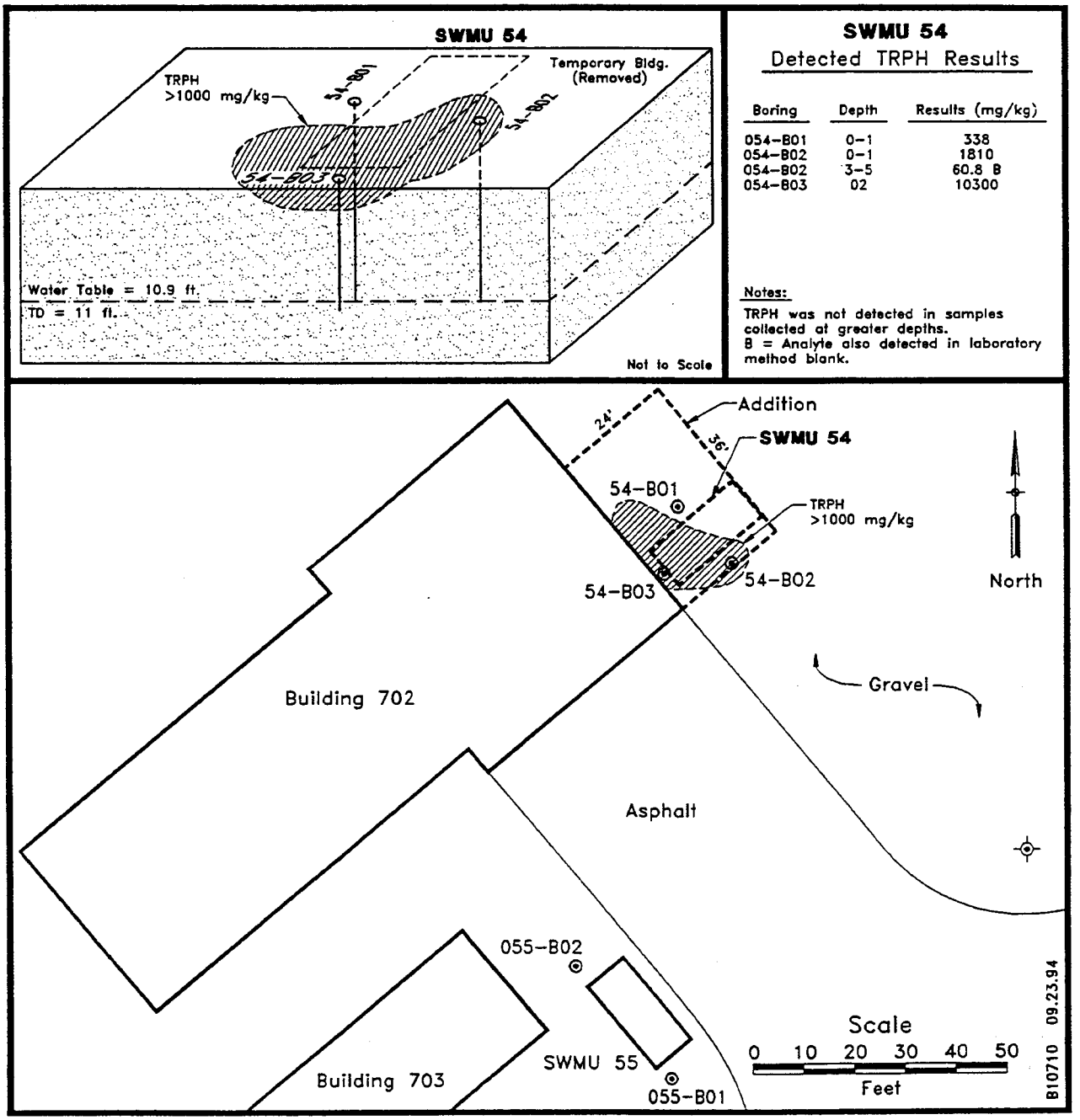


Figure 4.9-1. SWMUs 54 and 55 Features and Sampling Locations

SWMU 55, but that elevated levels of TRPH are present at SWMU 54.

A quantitative risk assessment and ecological assessment were performed for these SWMUs and are presented in Appendix C. In the risk assessment, Base residents, nearby workers, and future construction workers were assessed for exposure through inhalation of volatiles and fugitive dust. Future construction workers were also assessed for exposure through dermal contact with, and incidental ingestion of soil. The results of the human health risk and ecological risk assessments indicate that the SWMUs do not pose a risk to human health or the environment.

Following field activities for this investigation, visibly contaminated soil was encountered during construction activities at SWMU 54. The soil was excavated and disposed of by Base Environmental Flight personnel. An addition to Building 702 now covers SWMU 54.

NFA is recommended for SWMUs 54 and 55; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.9.1 SWMU Description

Physical Features—SWMUs 54 and 55 are located approximately 3 ft northeast and 20 ft southeast of Building 702, respectively. The area surrounding the SWMUs is level and covered with loose gravel. The temporary building at SWMU 54 was removed during the field investigation. SWMU 54 is now covered by an addition to Building 702.

Unit Description—The temporary building at SWMU 54 was approximately 7 ft wide by 15 ft long. It was removed during the field investigation and the ground beneath it was stained. The temporary building at SWMU 55 is approximately 7 ft wide and 15 ft long. No staining was visible at SWMU 55 at the time of this investigation.

Waste Description—Waste oils were stored in drums in the temporary buildings at each SWMU.

Release History—Analytical results from the previous investigation indicated TRPH contamination at SWMU 54. No previous investigation has been conducted at SWMU 55, but stains were observed in the vicinity of the SWMU during drilling, so there is some evidence of a release.

4.9.2 Site Investigation and Results

Two soil borings were drilled at SWMU 55, and three were drilled at SWMU 54, as shown in Figure 4.9-1. Only two borings were scoped for SWMU 54, but a third was installed later in the field investigation because the temporary building covering the SWMU had been removed after the first two borings had been drilled. This occurred after the drilling rigs had been demobilized, so the geoprobe rig was used for this third boring. Split spoon or geoprobe samples were collected every two ft from the surface to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D.

Chemical analytical samples were collected from the surface interval, the interval intersecting groundwater, and the interval with the highest headspace reading in each boring. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 54 and 55 were defined by direct sampling and observation of the drilling operations at the site.

Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand with varying amounts of silt and clay. Groundwater occurs in silty sand approximately 10 ft bgl. Groundwater flow direction in this part of the base generally varies between the southeast and southwest.

All samples were analyzed for TRPH, VOCs, and metals. Three samples were analyzed for semivolatile organic compounds because they were visibly contaminated. Summary analytical results are presented in Tables 4.9-1 and 4.9-2.

2-Hexanone, 4-methyl-2 pentanone, acetone, and methyl ethyl ketone were detected in one sample. Similar concentrations of these analytes were also found in the method blank so the reported concentrations are likely to be due to low level laboratory contamination. Acetone was detected in several samples at concentrations greater than that found in method blanks. Acetone results may be biased slightly high.

Barium, cadmium, chromium, lead, and mercury were detected at concentrations above UTLs for background in several samples. However, none of the detected concentrations of metals exceeded trigger criteria.

TRPH was detected in five samples. All detected concentrations were below the TRPH trigger criterion, except in the samples from the 0-1 ft interval in 54-B02 and the 0-2 ft interval in 54-B03. Stained soils were also noted at these locations during drilling.

4.9.3 Risk Assessment Results

A quantitative risk assessment for Site 47 (SWMUs 21, 22, 54, 55, and 123) was conducted by Walk, Haydel, and Associates , 1989. This risk assessment was updated using new data collected during this investigation to assess the impacts of site COPCs on human health and the environment. COPCs, exposure pathways, and receptors were identified as described in Appendix C. The risk assessment methodology followed is presented in the *RA Report* (Radian, 1992b). COPCs selected for the site are presented in Table C.1-3. Risked-based screening results are presented in Attachment 5 of Appendix C.

Workers near the site could be exposed through inhalation of volatiles and through inhalation of contaminants entrained in fugitive dust generated through the gravel cover at the site. Since the site is gravel covered, dermal contact with and incidental ingestion of soil is expected to be minimal. On-base residents, approximately 0.6 miles from the site, could be exposed through air dispersed volatiles or dust-entrained contaminants from the site. Potential future construction workers could be exposed by the inhalation pathways (volatiles and fugitive dust), and by dermal contact and incidental ingestion of surface or subsurface soil contaminants if construction were to take place on the site in the future. These were the exposure pathways quantified in the risk assessment.

Risk values for all scenarios evaluated were below the range considered unacceptable. For the near site worker scenario, present average and reasonable maximum carcinogenic risks were 2E-07 and 3E-07; future risks were 5E-06 and 1E-05. It is assumed that fugitive dust may be generated by future construction activities, bringing subsurface soil to the surface. The assumed future inhalation of fugitive dust by on-site occupational workers increased the risks. Present residential carcinogenic risks were 1E-10 and 2E-10, while future residential risks were 7E-11 and 1E-10. Potential future construction worker carcinogenic risks were 1E-08 and 2E-08

Table 4.9-1
Analytical Results for Soil Samples—SWMU 54

Location ID		054-B01		054-B01		054-B01		054-B02	
Sample ID		054-B01-01-01		054-B01-02-01		054-B01-03-01		054-B02-01-01	
Beg. Depth-End Depth (ft)		0-1		5-7		9-11		0-1	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	338	(28.2)	< DL	(32.3)	< DL	(31.4)	1810	(27.1)
SW8240 - Volatile Organics (µg/kg)									
2-Hexanone	[NS]	ND	(0.9)	ND	(1.04)	ND	(1)	ND	(0.868)
4-Methyl-2-pentanone (MIBK)	[$4x10^6$]	ND	(0.859)	ND	(0.997)	ND	(0.958)	ND	(0.828)
Acetone	[$8x10^6$]	ND	(1.41)	12.9 B	(1.64)	10 B	(1.57)	21.8	(1.36)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(1.43)	ND	(1.66)	ND	(1.6)	ND	(1.38)
Methylene chloride	[$9.3x10^4$]	2.33 J	(2.45)	3.16	(2.85)	5.31	(2.73)	2.3 J	(2.36)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	65.5	(0.051)	28.8	(0.0496)	88.8	(0.0515)	77.4	(0.0471)
Cadmium	[80]	0.919 B	(0.253)	< DL	(0.246)	0.353 B	(0.255)	2.31 B	(0.234)
Chromium	[$6.6,8x10^4$]	16	(0.24)	5.1	(0.234)	17.7	(0.243)	27.8	(0.222)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	3.16	(0.311)	3.92	(0.373)	5.12	(0.364)	3.49	(0.313)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	60.5 S	(1.33)	3.32 S	(0.0799)	6.4 S	(0.156)	220 S	(13.4)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0135)	< DL	(0.0156)	< DL	(0.015)	0.0135	(0.013)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.93	(0.236)	1.09	(0.281)	1.75	(0.277)	0.896	(0.237)

Table 4.9-1 (Continued)

Location ID		054-B02		054-B02		054-B03		054-B03	
Sample ID		054-B02-02-01		054-B02-03-01		054-B03-01-01		054-B03-02-01	
Beg. Depth-End Depth (ft)		3-5		9-11		0-2		6-8	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	60.8 B	(29.9)	< DL	(32.9)	10300	(147)	< DL	(32.6)
SW8240 - Volatile Organics (µg/kg)									
2-Hexanone	[NS]	ND	(3.39)	ND	(1.06)	NA		6.8 BJ	(7.3)
4-Methyl-2-pentanone (MIBK)	[$4x10^6$]	ND	(1.89)	ND	(1.01)	NA		5.79 B	(3.26)
Acetone	[$8x10^6$]	13.2 BJ	(29)	12.7 B	(1.66)	NA		23 B	(19)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(3.86)	ND	(1.69)	NA		9.8 B	(9.12)
Methylene chloride	[$9.3x10^4$]	1.84	(1.63)	5.41	(2.89)	NA		ND	(2.69)
SW8270 - Semivolatile Organics (µg/g)									
2-Methylnaphthalene	[NS]	NA		NA		0.201	(0.142)	ND	(0.0254)
Benzo(a)anthracene	[.96]	NA		NA		0.0837 FJ	(0.107)	ND	(0.026)
Chrysene	[96]	NA		NA		0.0837 FJ	(0.142)	ND	(0.0433)
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		0.541	(0.29)	ND	(0.116)
Naphthalene	[NS]	NA		NA		0.0931 J	(0.123)	ND	(0.0338)
Phenanthrene	[NS]	NA		NA		0.0695 J	(0.159)	ND	(0.0289)
Pyrene	[2400]	NA		NA		0.0438 J	(0.0869)	ND	(0.0309)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	80.7 B	(0.054)	49.5 B	(0.0609)	NA		39.2	0.0589
SW6010—Metals (mg/kg) Continued									
Cadmium	[80]	0.364 B	(0.268)	< DL	(0.302)	NA		< DL	(0.292)
Chromium	[$6.6,8x10^4$]	13.2	-0.255	10.1 B	-0.287	NA		6.55 B	-0.278
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	3.64	(0.339)	3.86	(0.35)	NA		< DL	(0.768)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	10.7 S	(0.291)	3.04 S	(0.0849)	NA		3.14 S	(0.0777)
SW7471 - Mercury (mg/kg)									
Mercury	[-0.0006,24]	< DL	(0.0143)	0.0164	(0.0158)	NA		0.0649	(0.0156)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.16	(0.258)	2.76	(0.299)	NA		3.09	(0.274)

Table 4.9-1 (Continued)

Location ID		054-B03	
Sample ID		054-B03-03-01	
Beg. Depth-End Depth (ft)		10-12	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)			
Hydrocarbons	[1000]	< DL	(31.2)
SW8240 - Volatile Organics (µg/kg)			
2-Hexanone	[NS]	ND	(7.12)
4-Methyl-2-pentanone (MIBK)	[$4x10^6$]	ND	(3.17)
Acetone	[$8x10^6$]	27.3 B	(18.5)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(8.89)
Methylene chloride	[$9.3x10^4$]	1.01 J	(2.62)
SW8270 - Semivolatile Organics (µg/g)			
2-Methylnaphthalene	[NS]	ND	(0.0244)
Benzo(a)anthracene	[.96]	ND	(0.0249)
Chrysene	[96]	ND	(0.0416)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.111)
Naphthalene	[NS]	ND	(0.0324)
Phenanthrene	[NS]	ND	(0.0277)
Pyrene	[2400]	ND	(0.0297)
SW6010 - Metals (mg/kg)			
Barium	[84.36,5600]	88.8	(0.0607)
Cadmium	[80]	< DL	(0.301)
Chromium	[$6.6,8x10^4$]	10.4	(0.286)
SW7060 - Arsenic (mg/kg)			
Arsenic	[6.88,24]	3.86	(0.666)
SW7421 - Lead (mg/kg)			
Lead	[12.3,500]	6.01 S	(0.135)
SW7471 - Mercury (mg/kg)			
Mercury	[NS,24]	0.0188	(0.015)
SW7740 - Selenium (mg/kg)			
Selenium	[10.53,400]	3.3	(0.238)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
F = Interference or coelution suspected.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

Table 4.9-2
Analytical Results for Soil Samples—SWMU 55

Location ID		055-B01		055-B01		055-B01		055-B02		055-B02		055-B02	
Sample ID		055-B01-01-01		055-B01-02-01		055-B01-03-01		055-B02-01-01		055-B02-02-01		055-B02-03-01	
Beg. Depth-End Depth (ft)		0-1		3-5		7-9		0-1		3-5		9-11	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)													
Hydrocarbons	[1000]	< DL	(30)	< DL	(32.7)	< DL	(35)	183 B	(29.6)	< DL	(32.8)	< DL	(35.7)
SW8240 - Volatile Organics (ug/kg)													
Acetone	[8x10 ^{6}]	12.2 B	(1.51)	12.5 B	(1.65)	10.8 BJ	(34.1)	8.68 BJ	(28.8)	11.1 BJ	(31.9)	15.9 BJ	(35.1)
Methylene chloride	[9.3x10 ^{4}]	3.82	(2.62)	2.1 J	(2.88)	6.7	(1.91)	1.86	(1.62)	ND	(1.79)	4.79	(1.97)
SW6010 - Metals (mg/kg)													
Barium	[84.36,5600]	59.6	(0.0466)	31.1	(0.0485)	52.7	(0.0555)	44.3	(0.0384)	31.7	(0.0531)	23.7	(0.0472)
Cadmium	[80]	< DL	(0.231)	< DL	(0.24)	< DL	(0.275)	0.776 B	(0.191)	< DL	(0.263)	< DL	(0.234)
Chromium	[6.6,8x10 ^{4}]	9.75	(0.22)	4.54	(0.229)	6.77	(0.262)	11.3	(0.181)	4.42	(0.25)	3.63	(0.223)
Silver	[0.73,400]	< DL	(0.147)	< DL	(0.153)	< DL	(0.175)	0.366	(0.122)	< DL	(0.168)	< DL	(0.149)
SW7060 - Arsenic (mg/kg)													
Arsenic	[6.88,24]	2.35	(0.281)	3.25	(0.323)	3.68	(0.35)	3.5	(0.245)	2.97	(0.315)	3.62	(0.31)
SW7421 - Lead (mg/kg)													
Lead	[12.3,500]	7.52 S	(0.12)	1.35 S	(0.0693)	1.22 S	(0.0751)	95.7 S	(5.26)	0.958 S	(0.0675)	0.573 S	(0.0664)
SW7740 - Selenium (mg/kg)													
Selenium	[10.53,400]	2	(0.212)	1.97	(0.243)	1.86	(0.267)	1.83	(0.186)	2.07	(0.237)	0.955	(0.234)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
DL = Detection limit.
B = Analyte detected in blank analyses.
J = Estimated concentration, analyte detected at concentration below the detection limit.
S = Analyte concentration obtained using the MSA.

or average and reasonable maximum exposures, respectively. The non-carcinogenic hazard index for potential futureconstruction workers were 1E-02 for both the average and reasonable maximum exposure scenarios. Tables in Attachment 3 of Appendix C present the risks and hazard indices by chemical, exposure pathway, and scenario total for each scenario.

An ecological quotient (EQ) of 1 for black-tailed jackrabbits at the site indicates low probability of any adverse environmental effects from the COPCs at the site. Although no vegetation is currently on site, a quantitative environmental evaluation was conducted on the assumption that the site would be vegetated in the future, and that exposure to site contaminants would be possible through plant uptake and subsequent ingestion by animals, as well as by soil ingestion. Methodology for the EQ method is presented in Appendix K of the *RA Report* (Radian, 1992b); calculated plant and jack-rabbit uptake and EQs are presented in Tables C.2-3 and C.2-4 of Appendix C.

4.9.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the results of the quantitative risk assessment (acceptable or unacceptable risk), and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

A release to the soil has occurred at SWUM 54; however, the impact of the release is minimal. Of primary concern are the TRPH concentrations of 1810 mg/kg (0-1 ft) and 10300 mg/kg (0-2 ft) in samples from borings 054-B02 and 054-B03, respectively. However, TRPH concentrations in the underlying soil and adjacent borings at SWMU 54 are below the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB, suggesting that TRPH greater than 1000 mg/kg is restricted to a small area in the shallow surface soil. The results of the quantitative risk assessment indicate that the SWMUs do not pose an unacceptable risk to human health or the environment.

4.9.5 Recommendations

The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Surficial contaminated soil (0-2 ft) was detected during the RFI. In 1994, an addition to Bldg. 702 was constructed. Prior to construction, surficial soil samples were taken for TPH, VOCs, SVOC, and metals. No VOCs or SVOCs were detected. Only TPH at 21,000 was detected in one sample. The TPH-contaminated soil was excavated. This activity was overseen by environmental personnel. Visual screening was used to determine nature and extent to direct excavation activities. No confirmation samples were taken. The soil was taken to the base landfill where it was landfarmed. Based on this additional information, NFA is recommended for SWMU 54.

4.10 SWMU 56—Building 807 Test Cell Waste Accumulation Area

SWMU 56 is on Table 2 of Holloman AFB's HSWA permit. The waste accumulation area was in operation from 1978 to 1990. No previous investigation has been conducted. For this investigation, three soil borings were drilled in the the potentially aftected area at the SWMU. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMUs; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.2

4.10.1 SWMU Description

Physical Features—As shown in Figure 4.10-1, SWMU 56 is located approximately 60 feet northwest of former Building 807 in the West Base area.

Unit Description—The SWMU consists of an approximately 45- by 75-ft area where 7 drums containing waste oil and solvents were stored on runway matting. The drums have been removed and the area is now covered with gravel.

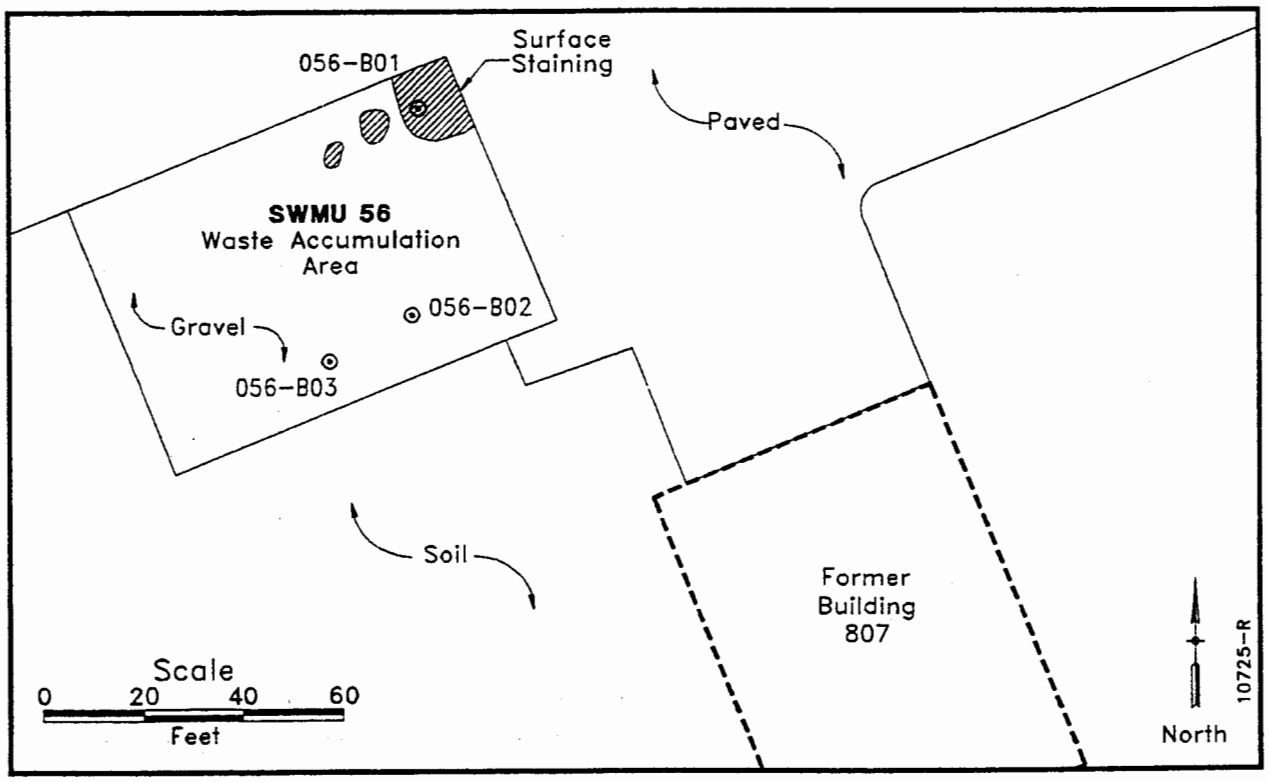


Figure 4.10-1. SWMU 56 Features and Sampling Locations

Waste Description—The drums contained waste oil and solvents from the former Building 807 Test Cell, as well as waste fuels and product fuels.

Release History—There is no record of a release at the SWMU; however, surface staining is visible at the site.

4.10.2 Site Investigation and Results

Three soil borings were drilled at the SWMU, as shown in Figure 4.10-1. Split spoon samples were collected every 2 ft from the surface to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were originally to be collected from the surface and every 5 ft to groundwater, but groundwater was encountered at approximately 3 ft bgl, so samples were collected from the surface and from either the 2- to 4-ft or the 4- to 6-ft interval in each boring. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 56 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of silt and silty sand. Groundwater occurs in silty sand approximately 3 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for TRPH, VOCs, and metals. Summary analytical results are presented in Table 4.10-1.

Several VOCs were measured at concentrations below detection limits. Acetone and methylene chloride were detected in all of the samples, but were also detected at similar concentrations in some associated method blanks, so their presence in the samples is uncertain. No VOCs were detected at concentrations above trigger criteria.

Barium, chromium, and mercury were detected at concentrations above UTLs for background in some samples. However, none of the detected metals concentrations exceeded trigger criteria.

None of the constituents were identified as COPCs in the risk-based screen. TRPH was detected in all of the samples, but all detected concentrations are below the trigger criterion.

4.10.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 56 to help determine the need for further investigation at the site on the basis of potential human health or ecological risk. COPCs, exposure pathways, and receptors were identified.

Groundwater in this part of the Base flows to the southwest. There are no complete exposure pathways for surface water or groundwater. The surrounding area is open or is used for parking.

There are no on-site workers, but off-site workers could be exposed through inhalation of volatiles; however, because of the small size of the SWMU and minimal contamination, this pathway is unlikely to pose a risk. The SWMU is covered with gravel, so dermal contact with soil and generation of fugitive dust is expected to be minimal. Main Base residents are approximately 1.5 miles away and are not expected to be impacted by the SWMU.

Table 4.10-1
Analytical Results for Soil Samples—SWMU 56

Location ID		056-B01		056-B01		056-B02		056-B02	
Sample ID		056-B01-01-01		056-B01-02-01		056-B02-01-01		056-B02-02-01	
Beg. Depth-End Depth (ft)		0-2		6-8		0-2		2-4	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	106	(31.6)	408	(33.2)	464	(29.8)	< DL	(37.3)
SW8240 - Volatile Organics (μg/kg)									
1,1,1-Trichloroethane	[NS]	ND	(2.65)	ND	(2.79)	14.6	(2.5)	ND	(3.12)
1,1-Dichloroethane	[$8x10^6$]	ND	(2.89)	ND	(3.04)	ND	(2.72)	48.7	(3.41)
Acetone	[$8x10^6$]	75.9 B	(18.6)	26.6 B	(19.6)	19.4 B	(17.5)	129	(21.9)
Benzene	[$2.4x10^4$]	ND	(1.27)	ND	(1.34)	ND	(1.2)	1.94	(1.5)
Carbon disulfide	[$8x10^6$]	ND	(3.36)	ND	(3.54)	ND	(3.17)	ND	(3.97)
Ethyl benzene	[$8x10^6$]	ND	(1.22)	ND	(1.28)	2.15	(1.15)	ND	(1.44)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(8.94)	ND	(9.42)	ND	(8.43)	6.72 J	(10.5)
Methylene chloride	[$9.3x10^4$]	12.5	(2.64)	1.69 BJ	(2.78)	9.07	(2.49)	11.3	(3.11)
Toluene	[$1.6x10^7$]	0.505 J	(2.51)	ND	(2.65)	1.06 J	(2.37)	ND	(2.96)
Xylene (total)	[$1.6x10^8$]	ND	(5.65)	ND	(5.95)	2.17 J	(5.33)	ND	(6.66)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	47.6	(0.0463)	44.1	(0.0549)	45	(0.0496)	24.3	(0.0511)
Cadmium	[80]	< DL	(0.229)	< DL	(0.272)	0.267 B	(0.246)	<DL	(0.253)
Chromium	[$6.6,8x10^4$]	13.8	(0.218)	7.6 B	(0.259)	9.64 B	(0.234)	4.85 B	(0.241)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	< DL	(0.262)	0.41 S	(0.273)	< DL	(0.256)	1.01	(0.289)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	4.15 S	(0.183)	4.01 S	(0.0949)	5.18 S	(0.178)	1.19 SB	(0.101)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0152)	0.0167	(0.016)	0.0179	(0.0143)	< DL	(0.0179)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	0.402 S	(0.235)	0.642 S	(0.244)	1.04 S	(0.229)	1.19 S	(0.259)

Table 4.10-1 (Continued)

Location ID		056-B03		056-B03	
Sample ID		056-B03-01-01		056-B03-02-01	
Beg. Depth-End Depth (ft)		0-2		2-4	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)					
Hydrocarbons	[1000]	333	(27.3)	< DL	(31.1)
SW8240 - Volatile Organics (μg/kg)					
1,1,1-Trichloroethane	[NS]	ND	(2.28)	ND	(2.62)
1,1-Dichloroethane	[$8x10^6$]	ND	(2.48)	ND	(2.85)
Acetone	[$8x10^6$]	69.1 B	(16)	36.1 B	(18.4)
Benzene	[$2.4x10^4$]	ND	(1.09)	ND	(1.25)
Carbon disulfide	[$8x10^6$]	3.99	(2.89)	ND	(3.33)
Ethyl benzene	[$8x10^6$]	2.18	(1.05)	ND	(1.2)
Methyl ethyl ketone	[$4.8x10^7$]	3.72 J	(7.68)	ND	(8.84)
Methylene chloride	[$9.3x10^4$]	1.25 BJ	(2.27)	10.5	(2.61)
Toluene	[$1.6x10^7$]	ND	(2.16)	ND	(2.48)
Xylene (total)	[$1.6x10^8$]	4.66 J	(4.85)	ND	(5.59)
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	47.7	(0.0443)	84.6	(0.0554)
Cadmium	[80]	0.267 B	(0.22)	< DL	(0.275)
Chromium	[$6.6,8x10^4$]	10.4	(0.209)	14.4	(0.261)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	< DL	(0.274)	0.886	(0.26)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	8.16 S	(0.191)	6.1 S	(0.181)
SW7471 - Mercury (mg/kg)					
Mercury	[NS,24]	< DL	(0.0131)	0.0156	(0.015)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	3.54 S	(0.245)	2.34 S	(0.233)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

COPCs were selected using the methodology described in Attachment 1 to Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil are below EPA Region III screening criteria, so there are no COPCs for this SWMU.

The SWMU itself is not vegetated and does not provide habitat or cover for wildlife. Because groundwater is shallow and the surrounding area is vegetated, wildlife could be exposed through ingestion of potentially contaminated plants if contaminants migrate to groundwater.

4.10.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from SWMU 56. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore, it is highly unlikely that these SWMUs pose a significant risk to human health or the environment.

4.10.5 Recommendations

NFA is recommended for SWMU 56; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

[This page intentionally left blank.]

4.11 SWMU 63—Building 867 Waste Accumulation Area

SWMU 63 is on Table 2 of Holloman AFB's HSWA permit. The waste accumulation area was in operation from 1984 to 1987. Facility interviews indicated that the waste accumulation area was taken out of service because of mismanagement. However, it is not known whether the mismanagement resulted in the release of any waste constituent. No previous investigation has been conducted at the SWMU. For this investigation, samples were collected from one soil boring and four surface locations at the SWMU. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMU 63; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

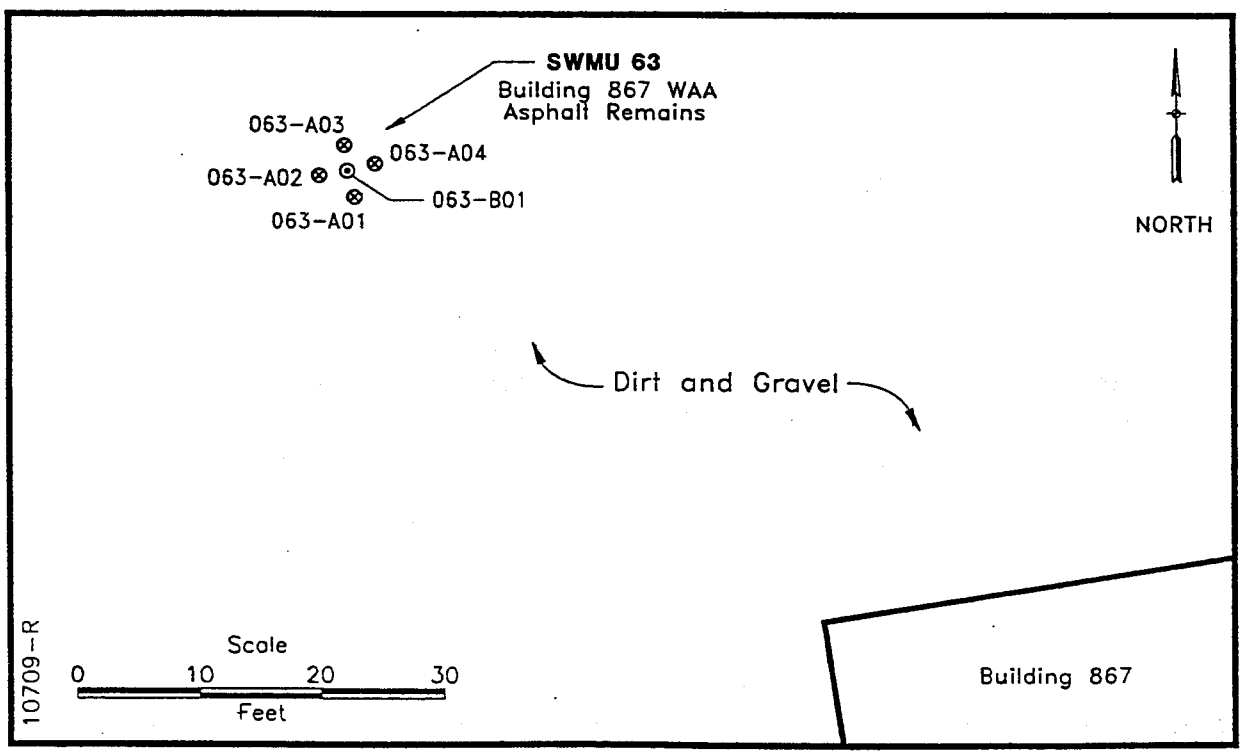


Figure 4.11-1. SWMU 63 Features and Sampling Locations

4.11.1 SWMU Description

Physical Features— As shown in Figure 4.11-1, SWMU 63 is located approximately 50 ft northwest of Building 867.

Unit Description—The SWMU consists of an area of soil approximately 10 by 10 ft in size where excess paint and paint thinners were stored. The area is now covered with gravel and some asphalt.

Waste Description—Waste consisted of excess paint and paint thinners from Building 867. Paint products were collected in a 55-gal. drum underlain by a wooden pallet and drip pan. The drums were transferred to the Building 809 Waste Accumulation Area for disposal.

Release History—There is no record of a release at the SWMU. However, the area was reportedly taken out of service because of mismanagement. In the past, light surface staining was observed at the site, suggesting a possible release.

4.11.2 Site Investigation and Results

One soil boring and four hand augers were drilled at the SWMU, as shown in Figure 4.11-1. Split spoon samples were collected every 2 ft from the surface to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were originally to be collected from the surface and every 5 ft to groundwater, but groundwater was encountered at approximately 5 ft bgl, so samples were collected at the surface and from the 4-6 ft interval only. Hand auger samples were collected from the 0- to 1- ft interval in four locations surrounding the soil boring. A soil sample for geotechnical analysis was collected from the soil boring. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 63 were defined by direct sampling and observation of the drilling operations at the site. The boring log for the soil boring provides a detailed description of site stratigraphy.

Site lithology consists primarily of sand and sandy silt. Groundwater occurs in sandy silt approximately 5 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for VOCs, nonhalogenated volatile organic compounds, semivolatile organic compounds, and metals. Summary analytical results are presented in Table 4.11-1.

No organic compounds were detected at concentrations above trigger criteria. Several volatile, semivolatile, and nonhalogenated VOCs were estimated to be at concentrations below the detection limit. Acetone was detected in all of the samples, methylene chloride in several samples, and methanol in one sample at concentrations above detection limits.

Chromium and lead were detected at concentrations above UTLs for background. However, none of the detected concentrations of metals exceeded trigger criteria.

None of the detected constituents were identified as COPCs through the risk-based screen.

4.11.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 63 to help determine the need for further investigation at the site on the basis of potential human health or ecological risk.

Table 4.11-1
Analytical Results for Soil Samples—SWMU 63

Location ID		063-A01		063-A02		063-A03		063-A04	
Sample ID		063-A01-01-01		063-A02-01-01		063-A03-01-01		063-A04-01-01	
Beg. Depth-End Depth (ft)		0-1		0-1		0-1		0-1	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)									
Acetone	[$8x10^3$]	ND	(5.36)	ND	(5.36)	ND	(5.35)	ND	(5.97)
Isopropanol	[NS]	1.9 J	(3.49)	ND	(3.49)	2.96 J	(3.48)	2.19 J	(3.89)
Methanol	[40]	ND	(3.69)	ND	(3.69)	10.3	(3.69)	ND	(4.12)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	201	(31.9)	194	(31.9)	569	(145)	159	(33.9)
Methylene chloride	[$9.3x10^4$]	4.05	(1.79)	3.34	(1.79)	ND	(1.78)	3.97	(1.9)
SW8270 - Semivolatile Organics (μg/g)									
Chrysene	[96]	ND	(0.0432)	0.0334 J	(0.0433)	ND	(0.0431)	ND	(0.0462)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.116)	ND	(0.116)	ND	(0.115)	ND	(0.124)
Fluoranthene	[3200]	ND	(0.0257)	0.026	(0.0258)	ND	(0.0256)	ND	(0.0275)
Pyrene	[2400]	ND	(0.0309)	0.0313	(0.0309)	ND	(0.0307)	ND	(0.033)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	27.9	(0.0584)	35.9	(0.0538)	22.4	(0.0526)	24.8	(0.0593)
Cadmium	[80]	0.34 B	(0.289)	< DL	(0.267)	< DL	(0.261)	< DL	(0.294)
Chromium	[$6.6,8x10^4$]	7.1 B	(0.275)	5.71 B	(0.254)	3.78 B	(0.248)	3.23 B	(0.28)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	4.09	(0.347)	3.94	(0.319)	3.8	(0.382)	3.23	(0.335)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	13.5 S	(0.409)	16.7 S	(0.941)	3.14 S	(0.112)	6.28 S	(0.198)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.92 S	(0.262)	2.05 S	(0.242)	2.44 S	(0.289)	2.11 S	(0.254)

Table 4.11-1 (Continued)

Location ID		063-B01		063-B01	
Sample ID		063-B01-01-01		063-B01-02-01	
Beg. Depth-End Depth (ft)		0-2		4-6	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)					
Acetone	[8x10^3]	ND	(5.27)	ND	(5.21)
Isopropanol	[NS]	ND	(3.43)	ND	(3.39)
Methanol	[40]	ND	(3.63)	ND	(3.59)
SW8240 - Volatile Organics (μg/kg)					
Acetone	[8x10^6]	97.7	(31.4)	20.8 BJ	(30.8)
Methylene chloride	[9.3x10^4]	2.68	(1.76)	ND	(1.73)
SW8270 - Semivolatile Organics (μg/g)					
Chrysene	[96]	0.0177 J	(0.0428)	ND	(0.0423)
bis(2-Ethylhexyl)phthalate	[50]	0.028 J	(0.115)	ND	(0.113)
Fluoranthene	[3200]	ND	(0.0255)	ND	(0.0252)
Pyrene	[2400]	ND	(0.0306)	ND	(0.0302)
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	41.7	(0.0553)	55.3	(0.047)
Cadmium	[80]	< DL	(0.274)	< DL	(0.233)
Chromium	[6.6,8x10^4]	5.04 B	(0.261)	8.75 B	(0.222)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	2.98	(0.362)	4.36	(0.311)
SW7421 - Lead (mg/kg)					
Lead	[12.3,80]	2.49 S	(0.107)	5.13 S	(0.183)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	1.86 S	(0.274)	0.759 S	(0.235)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

COPCs, exposure pathways, and receptors were identified.

Groundwater flow in this part of the Base is to the southwest. Surface water runoff flows to paved areas and into the storm sewer system. There are no complete pathways for groundwater or surface water.

The SWMU is located along a flight line, and the surrounding area is covered with asphalt and gravel. There are no on-site workers. The unit covers a very small area and is partially covered with asphalt, so inhalation of fugitive dust and incidental ingestion of soil are not expected to be significant. Residents in the Main Base area are 1 mile away and are not expected to be impacted by the SWMU.

COPCs were selected using the methodology described in Attachment 1 to Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil are below EPA Region III screening criteria, so there are no COPCs for this SWMU.

The SWMU is very small and offers no vegetation or cover, so direct ecological exposure is not expected to occur on site. Potential pathways are inhalation of volatiles migrating from the site and ingestion of off-site plants potentially contaminated by groundwater. However, contamination is minimal and is not expected to impact wildlife.

4.11.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from SWMU 63. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore, it is highly unlikely that these SWMUs pose a significant risk to human health or the enviroment.

4.11.5 Recommendations

NFA is recommended for the SWMU; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

[This page intentionally left blank.]

4.12 SWMU 71—Building 1178A Waste Accumulation Area

SWMU 71 is on Table 2 of Holloman AFB's HSWA permit. The waste accumulation area was used as a less-than 90-day storage area and was in operation from 1955 to 1988. No previous investigation has been conducted. For this investigation five soil borings were drilled at the SWMU. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceeds health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMU 71; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.12.1 SWMU Description

Physical Features—As shown in Figure 4.12-1, SWMU 71 is located approximately 50 ft west-southwest of Building 1178A.

Unit Description—The SWMU consists of 3 concrete pads upon which 55-gal. drums were stored. The two smaller pads are approximately 3

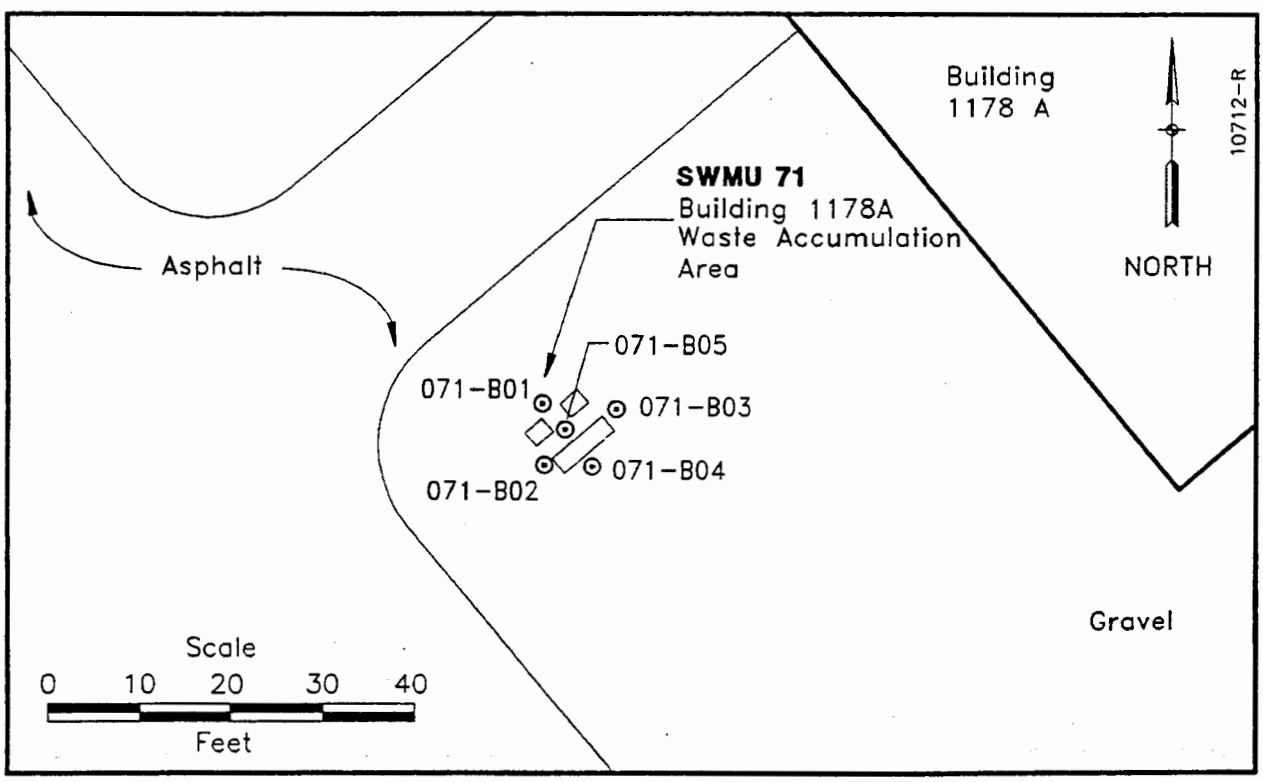


Figure 4.12-1. SWMU 71 Features and Sampling Locations

by 3 ft, and are adjacent to a larger pad that is 3 by 7 ft. All three concrete pads are in good condition and are currently surrounded by gravel. No secondary containment structures are present.

Waste Description—The waste consisted of paint, lacquer thinner, paint thinners (F005), PD-680 solvent, and toluene (F005) mixed with acetone (F003). These wastes were stored in a 55-gal. drum that was picked up by Defense Reutilization and Marketing Office (DRMO) approximately once a week.

Release History—There is no record of a release at the SWMU; however, some staining on the pads indicates that a release may have occurred.

4.12.2 Site Investigation and Results

Five soil borings were drilled at the SWMU, as shown in Figure 4.12-1. Split spoon samples were collected every 2 ft from the surface to 6 ft bgl in the four outer borings, and from the surface to groundwater in the central boring. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the surface interval in the outer four borings, and from the surface interval and 16- to 18-ft and 20- to 22-ft intervals in the central boring. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 71 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and sandy silt interbedded with clay lenses ranging in thickness from 1 to 2 ft. Groundwater occurs in sand at approximately 26 ft bgl. Groundwater in this part of the Base generally flows to the south.

Analytical Results

All samples were analyzed for TRPH, VOCs, nonhalogenated VOCs, and metals. Summary analytical results are presented in Table 4.12-1.

No organic constituents were detected at concentrations exceeding trigger criteria. Several organic constituents were detected at concentrations near or below detection limits. Acetone and methylene chloride were detected in most of the samples at levels near the detection limit.

Arsenic was detected at concentrations above UTLs for background in two samples. However, no detected metals concentrations exceed trigger criteria.

None of the detected constituents were identified as COPCs through the risk-based screen. TRPH was detected at concentrations below detection limits in all of the samples.

4.12.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 71 to help determine the need for further investigation on the basis of potential human health or ecological risk. COPCs, exposure pathways, and receptors were identified.

Groundwater flow in this part of the Base is to the south. Potentially contaminated groundwater may reach Lost River Basin, but because of the small size of the SWMU, minimal contamination, and the depth to groundwater (about 26 ft), impact is expected to be insignificant. Surface water runoff drains to a low point in the parking lot, though in the event of heavy rainfall, the

Table 4.12-1
Analytical Results for Soil Samples—SWMU 71

Location ID		071-B01		071-B02		071-B03		071-B04	
Sample ID		071-B01-01-01		071-B02-01-01		071-B03-01-01		071-B04-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(33.1)	< DL	(34.7)	< DL	(33.3)	< DL	(32.9)
SW8015 - Nonhalogenated Volatile Organics (mg/kg)									
Acetone	[$8x10^3$]	ND	(5.55)	ND	(5.96)	ND	(5.58)	ND	(5.46)
Ethanol	[NS]	1.73 KJ	(6.97)	1.66 KJ	(7.45)	2.12 KJ	(6.97)	2.11 KJ	(6.83)
Isopropanol	[NS]	1.26 KJ	(1.3)	ND	(3.88)	ND	(3.63)	2.28 J	(3.55)
Methyl ethyl ketone	[$4.8x10^4$]	ND	(3.94)	ND	(4.23)	ND	(3.96)	ND	(3.88)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	124	(32.5)	276	(33.9)	13.4 BJ	(19.7)	196	(31.8)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(4.31)	ND	(4.51)	4 J	(9.48)	ND	(4.22)
Methylene chloride	[$9.3x10^4$]	3.64	(1.82)	5.13	(1.9)	1.09 BJ	(2.8)	3.07	(1.78)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	29.9	(0.0412)	24.9	(0.0605)	34.2	(0.0543)	32.6	(0.0543)
Chromium	[$6.6,8x10^4$]	3.57	(0.194)	3.25	(0.285)	3.42	(0.256)	3.5	(0.256)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	10.4 S	(0.31)	1.73 S	(0.325)	0.00117 SJ	(0.307)	3.68 S	(0.303)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	30.7 S	(1.95)	30.8 S	(2.3)	0.931 S	(0.0779)	32.4 S	(1.84)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	3.75 S	(0.277)	3.4 S	(0.293)	3.06 S	(0.274)	2.72 S	(0.271)

Table 4.12-1 (Continued)

Location ID		071-B05		071-B05		071-B05	
Sample ID		071-B05-01-01		071-B05-02-01		071-B05-03-01	
Beg. Depth-End Depth (ft)		0-2		16-18		20-22	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)							
Hydrocarbons	[1000]	< DL	(32.8)	< DL	(31.3)	< DL	(31.7)
SW8015 - Nonhalogenated Volatile Organics (mg/kg)							
Acetone	[$8x10^3$]	ND	(5.44)	ND	(5.03)	ND	(5.14)
Ethanol	[NS]	1.7 KJ	(6.81)	2.46 KJ	(6.29)	2.19 KJ	(6.44)
Isopropanol	[NS]	ND	(3.54)	1.44 KJ	(3.27)	1.45 KJ	(3.35)
Methyl ethyl ketone	[$4.8x10^4$]	ND	(3.87)	ND	(3.57)	ND	(3.65)
SW8240 - Volatile Organics (μg/kg)							
Acetone	[$8x10^6$]	43.3 B	(32.1)	8.27 BJ	(30.5)	10.9 BJ	(30.9)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(4.27)	ND	(4.05)	ND	(4.11)
Methylene chloride	[$9.3x10^4$]	4.65	(1.8)	ND	(1.71)	5.54	(1.73)
SW6010 - Metals (mg/kg)							
Barium	[84.36,5600]	43.6	(0.0566)	33.8	(0.0496)	41.7	(0.0477)
Chromium	[$6.6,8x10^4$]	4.97	(0.267)	4.26	(0.234)	9.6	(0.225)
SW7060 - Arsenic (mg/kg)							
Arsenic	[6.88,24]	9.53 S	(0.314)	0.443 S	(0.327)	0.00256 S	(0.203)
SW7421 - Lead (mg/kg)							
Lead	[12.3,500]	42.4 S	(1.91)	25.1 S	(1.65)	1.47 S	(0.0511)
SW7740 - Selenium (mg/kg)							
Selenium	[10.53,400]	3.21 S	(0.28)	2.09 S	(0.292)	2.51 S	(0.181)

Note: The UTLs and Subpart S action level are presented, respectively, in brackets [ ]; [ ] = trigger criterion for organics; [,] = UTL, RCRA Subpart S action level.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
K = Not confirmed. Peak did not meet method identification criteria. Analyte not detected on other GC column.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

potential exists for runoff to flow into the Lost River Basin. However, constituent concentrations would be diluted to negligible levels before reaching the Basin, so, again, impact is expected to be insignificant. There are no complete human exposure pathways to groundwater or surface water.

The potential for exposure to workers near the site is low, since the site is very small, covered with gravel and concrete, and is not in an area of heavy pedestrian traffic. Base residents are located approximately 5 miles away and are not impacted by the SWMU. Because the SWMU is very small and minimal contamination was detected, inhalation of volatiles by nearby workers is expected to be insignificant. Dermal contact and incidental ingestion of soil are not expected, since the SWMU is covered with gravel and concrete.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil are below EPA Region III screening criteria, so there are no COPCs for the SWMU.

Since there is no vegetation at or near the SWMUs, direct exposure to ecological receptors is not expected. Ingestion of plants potentially contaminated by groundwater and inhalation of volatiles in the ambient air migrating to off-site receptors may be complete exposure pathways. However, because of the small size of the SWMU and the low levels of contamination, it is unlikely that these pathways contribute significant to ecological risk.

4.12.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from the SWMU. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore, it is highly unlikely that these SWMUs pose a significant risk to human health or the enviroment.

4.12.5 Recommendations

NFA is recommended for SWMU 71; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

[This page intentionally left blank.]

4.13 SWMU 78—Trim Pad 3 Waste Accumulation Area

SWMU 78 is on Table 2 of Holloman AFB's HSWA permit. The waste accumulation area was in operation from 1986 to 1990. No previous investigation has been conducted. For this investigation samples were collected from four soil borings at the SWMU. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMU 78; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.13.1 SWMU Description

Physical Features—As shown in Figure 4.13-1, SWMU 78 is located approximately 150 ft west of the F117A Squadron Operations Facility.

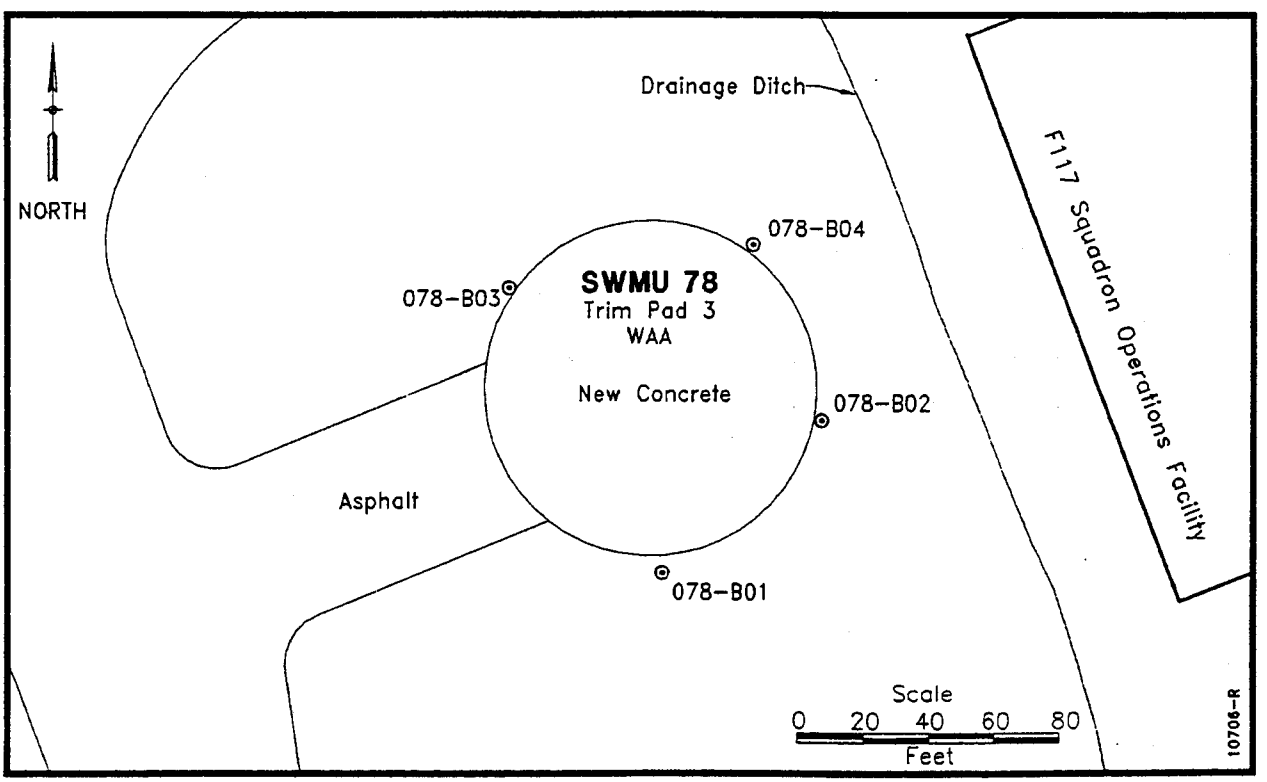


Figure 4.13-1. SWMU 78 Features and Sampling Locations

Unit Description—The SWMU consists of a sloping circular concrete pad approximately 150 ft in diameter on which 55-gal. drums and 400-gal. oil bowsers of waste oil had been stored. The bowsers were on wheels and were positioned over metal drip pans. The drums rested on wooden pallets. A portable, fully enclosed shed with a 570-gal. spill reservoir was located on the pad but is no longer present. The shed was designed for the safe storage of flammable fluids. The pad, once weathered, cracked, and patched in places, has been replaced with a new pad. The brick wall previously constructed around a portion of the pad near the drainage ditch has been removed.

Waste Description—Waste oils were stored in drums and bowsers on the pad, and waste oils and hydraulic fluid were stored in 55-gal. drums within the shed.

Release History—There is no record of a release from the SWMU, but staining was observed on the former concrete pad near the bowser and drum locations. Runoff from the site followed the slope of the pad toward a drainage ditch approximately 50 ft east of the pad.

4.13.2 Site Investigation and Results

Four soil borings were drilled at the SWMU, as shown in Figure 4.13-1. Split spoon samples were collected every 2 ft from the surface to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were originally to be collected from the surface and every 5 ft to groundwater, but groundwater was encountered at approximately 3 ft bgl, so samples were collected from the 0- to 2- ft and 2- to 4- ft intervals in each boring. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 78 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sandy silt. Groundwater occurs in the sandy silt at approximately 3 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for TRPH, VOCs, and metals. Summary analytical results are presented in Table 4.13-1.

Methylene chloride and acetone were detected in most of the samples, but acetone was also detected in associated method blanks, so its presence in the samples is uncertain. No VOCs were detected at concentrations above trigger criteria.

No metals were detected at concentrations above UTLs for background or above trigger criteria. None of the detected constituents were identified as COPCs through the risk-based screen. No detected TRPH concentrations exceeded trigger criteria.

4.13.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 78 to help determine the need for further investigation on the basis of potential health risk. COPCs, exposure pathways, and receptors were identified.

Groundwater flow in this part of the Base is to the southwest. After heavy rains, surface water runoff may flow to the sewage lagoons south of the site. Since little, if any, contamination was detected, groundwater and surface

Table 4.13-1
Analytical Results for Soil Samples—SWMU 78

Location ID		078-B01		078-B01		078-B02		078-B02	
Sample ID		078-B01-01-01		078-B01-02-01		078-B02-01-01		078-B02-02-01	
Beg. Depth-End Depth (ft)		0-2		2-4		0-2		2-4	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(33.4)	< DL	(35.3)	< DL	(32.6)	< DL	(35.8)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	77.4	(1.67)	59.7 B	(8.54)	6.12 B	(1.64)	7.52 B	(1.8)
Methylene chloride	[$9.3x10^4$]	3.38	(2.9)	13.8 J	(14.9)	4.05	(2.86)	4.32	(3.13)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	33.4	(0.0461)	40.4	(0.062)	49.9	(0.041)	20.7	(0.0614)
Cadmium	[80]	< DL	(0.228)	< DL	(0.307)	0.335 B	(0.203)	< DL	(0.305)
Chromium	[$6.6,8x10^4$]	3.85	(0.217)	5.33	(0.292)	9.34	(0.193)	3.37	(0.29)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	3.65	(0.286)	3.05	(0.401)	4.16	(0.334)	3.95	(0.317)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	2.68 SB	(0.0613)	2.04 S	(0.086)	10.4 S	(0.287)	1.29 S	(0.068)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.21	(0.217)	2.43	(0.304)	2.4	(0.254)	1.63	(0.241)
Location ID		078-B03		078-B03		078-B04		078-B04	
Sample ID		078-B03-01-01		078-B03-02-01		078-B04-01-01		078-B04-02-01	
Beg. Depth-End Depth (ft)		0-2		2-4		0-2		2-4	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(34)	< DL	(36)	71.7 B	(31.9)	< DL	(36.2)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	18.9	(1.71)	37.7	(1.82)	ND	(1.61)	18.1	(1.81)
Methylene Chloride	[$9.3x10^4$]	4.34	(2.98)	ND	(3.17)	4.29	(2.8)	ND	(3.14)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	67.7	(0.0624)	34.5	(0.0473)	36.8	(0.0531)	26.6	(0.0479)
Cadmium	[80]	< DL	(0.309)	0.3 B	(0.235)	0.269 B	(0.263)	< DL	(0.237)
Chromium	[$6.6,8x10^4$]	7.18	(0.294)	3.94	(0.223)	7.69	(0.251)	4.76	(0.226)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	4.9	(0.394)	4.03	(0.376)	3.69	(0.319)	3.46	(0.363)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	2.83 S	(0.0845)	14.3 S	(0.0794)	6.94 S	(0.188)	1.54 S	(0.107)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	< DL	(0.3)	2.31	(0.282)	2.96	(0.24)	3.62	(0.274)

Note: The UTLs and Subpart S action levels are presented, respectively, in brackets [ ]; [ ] = trigger criterion for organics; [,] = UTL, RCRA Subpart S action level.

( ) = Detection limit.
B = Analyte also detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

water are not expected to be impacted. There are no complete pathways for groundwater or surface water.

Workers near the unit are not expected to be impacted by the minimal contamination detected. Base residents are located approximately 2 miles away and are not affected by the SWMU.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil are below EPA Region III screening criteria, so there are no COPCs for this SWMU.

Animals may be exposed to contaminants in soil and in standing water in the adjacent ditch after sufficient rainfall. Potential exposure pathways include inhalation of volatiles and fugitive dust, ingestion of surface water in the adjacent ditch, incidental ingestion of soil while grooming and foraging, dermal contact with soils, and ingestion of potentially contaminated plants. However, because of the low levels of constituents detected, the SWMU is unlikely to pose a risk to wildlife.

4.13.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from SWMU 78. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore, it is highly unlikely that the SWMU poses a significant risk to human health or the enviroment.

4.13.5 Recommendations

No visible contamination was present above the water table. SWMU 78 was only active from 1984 to 1987 and records kept during this time were collected and maintained. No indication that petroleum hydrocarbons (i.e., fuels, oils, etc.) were stored at this site exist. Some solvents containing VOCs were stored at the site but none of the four samples analyzed for VOCs had VOCs. Holloman AFB did analyze samples from all four soil borings for VOCs. The only VOCs detected were acetone and methylene chloride with the highest results being 77.4 ppb and 13.8 ppb, respectively. Acetone was also blank detected and methylene chloride is also a common lab contaminant. With no VOCs detected in samples taken directly above the water table, the potential for groundwater contamination is minimal and the likelihood that any migration could occur does not appear to exist. Therefore, there is no need to sample groundwater at SWMU 78. Holloman AFB therefore recommends NFA for SWMU 78.

4.14 SWMU 91—Building 816 Washrack

SWMU 91 is on Table 2 of Holloman AFB's HSWA permit. Its period of operation is unknown. No previous investigation has been conducted. For this investigation, two soil borings were drilled in the potentially affected area immedialely surrounding the SWMU. Analytical results indicate that all detected constituents are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceeds health-based criteria for ingestion and that it is highly unlikely that this SWMU poses a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

NFA is recommended for SWMU 91; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.14.1 SWMU Description

Physical Features—As shown in Figure 4.14-1, SWMU 91 is located approximately 20 feet south of Building 816.

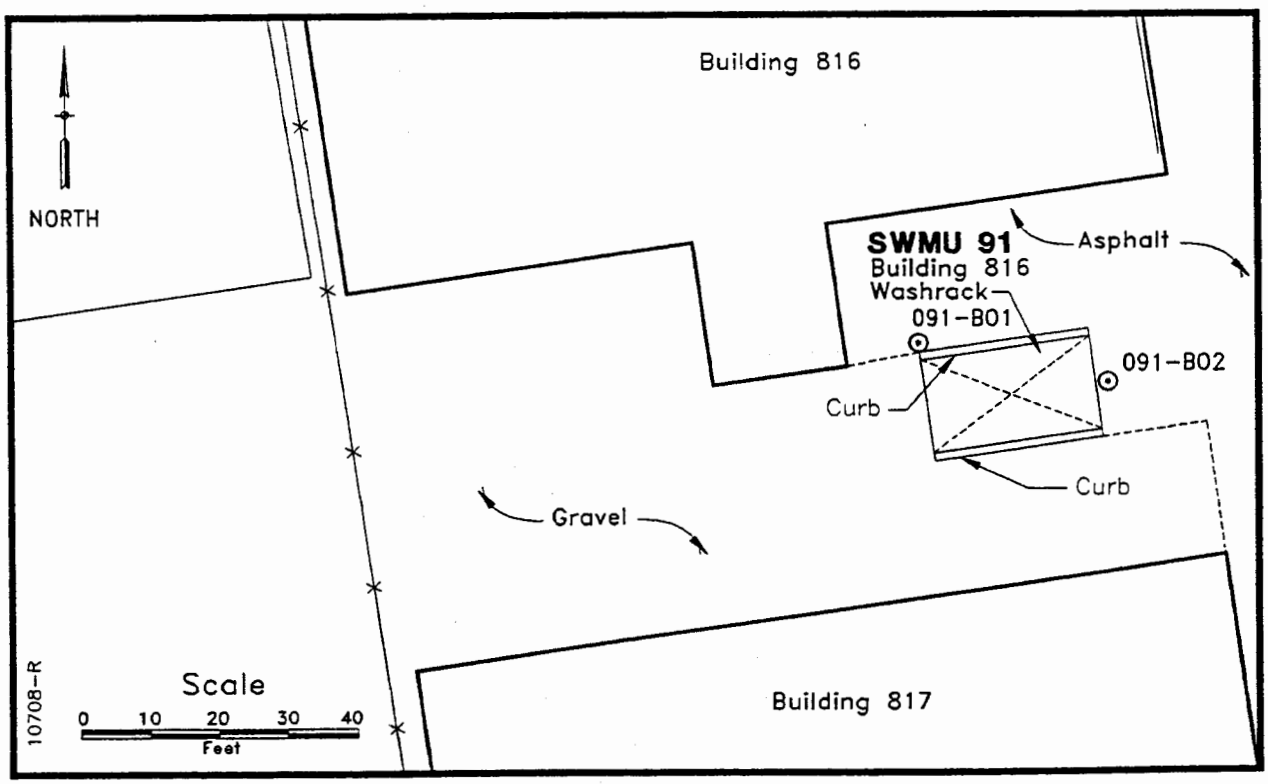


Figure 4.14-1. SWMU 91 Features and Sampling Locations

Unit Description—The washrack consists of a 15- by 25-ft concrete pad, curbed on two sides and sloped to a catch basin that discharged to an oil/water separator and waste oil tank. The pad is currently in poor condition and cracking is evident. A new oil/water separator of unknown material and construction was installed in 1991 and the old unit is now used as a grit chamber. The age and material of construction of the old unit are also unknown.

Waste Description—Washwater containing waste oil and fuel from cleaning vehicles and equipment.

Release History—No previous investigation has been conducted at the site and no information concerning spills is available. Each end of the pad is open to the surrounding soil, and the pad itself is in poor condition, with cracking and evident deterioration, so the possibility of a release is high.

4.14.2 Site Investigation and Results

Two soil borings were drilled at the SWMU as shown in Figure 4.14-1. Split spoon samples were collected every 2 ft to a depth of 6 ft bgl. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the intervals with the highest headspace readings (0-2 ft in both borings). A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 91 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of silty sand. Groundwater occurs in silty sand approximately 5.5 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

Both samples were analyzed for TRPH, VOCs, and metals. Summary analytical results are presented in Table 4.14-1.

Acetone and methylene chloride were detected in both samples, but were also detected at similar concentrations in associated method blanks, so their presence in the samples is uncertain. No VOCs were detected at concentrations above trigger criteria.

Barium and chromium were detected in both borings at concentrations above UTLs for background. However, none of the detected concentrations of metals exceeded trigger criteria.

No detected constituents were identified as COPCs through the risk-based screen, and TRPH did not exceed trigger criteria.

4.14.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 91 to help determine the need for further investigation on the basis of potential health risk. COPCs, exposure pathways, and receptors were identified.

Groundwater in this part of the Base flows to the southwest. Surface water runoff is to the south toward sewage lagoons. There are no complete pathways for surface water or groundwater.

The surrounding area is a flight line, either paved or graveled. On-site workers are not expected to inhale fugitive dust or contact soil because of the concrete pad and the gravel cover surrounding the wash rack. Inhalation of volatiles by on-site workers is expected to be minimal since only two volatiles compounds were detected and

Table 4.14-1
Analytical Results for Soil Samples—SWMU 91

Location ID		091-B01		091-B02	
Sample ID		091-B01-01-01		091-B02-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)					
Hydrocarbons	[1000]	< DL	(32)	< DL	(30)
SW8240 - Volatile Organics (μg/kg)					
Acetone	[$8x10^6$]	70.7 B	(18.6)	87.5 B	(17.6)
Methylene chloride	[$9.3x10^4$]	3.49 B	(2.64)	3.59 B	(2.5)
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	101	(0.0525)	89	(0.0496)
Cadmium	[80]	0.428 B	(0.26)	0.427 B	(0.246)
Chromium	[$6.6,8x10^4$]	12.6	(0.248)	11.6	(0.234)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	5.16	(0.376)	4.12	(0.32)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	8.01 S	(0.443)	6.45 S	(0.377)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	0.942 S	(0.284)	0.319 S	(0.242)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
S = Analyte concentration obtained using the MSA.

these were at extremely low concentrations. Main Base residents are located approximately 2 miles from the SWMU and should not be impacted by volatiles. Subsurface soil and groundwater were not sampled, but they are unlikely to be affected since surface contamination is minimal. Currently, there are no complete exposure pathways involving subsurface soil or groundwater. If construction were to take place, exposure to the subsurface soil may occur.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface soil are below EPA Region III screening levels, so there are no COPCs for this SWMU.

The SWMU itself does not provide habitat for wildlife. Exposure may occur through ingestion of plants potentially contaminated by shallow groundwater; however, this is unlikely, since there are no plants near the site, groundwater movement is extremely slow, and surface soil contamination is minimal, so groundwater is probably not affected. On the basis of these observations, wildlife are not expected to be at risk from the SWMU.

4.14.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There does not appear to have been a release from the SWMU. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk-screen; therefore it is highly unlikely that these SWMUs pose a significant risk to human health or the enviroment.

4.14.5 Recommendations

No TPH was detected in either sample and no volatile or semivolatile organic compounds were detected in the samples that were not blank detected. Therefore, SWMU 91 is recommended for NFA.

4.15 SWMU 124—Building 752 Waste Oil Tank

SWMU 124 is on Table 2 of Holloman AFB's HSWA permit. The SWMU has been in operation since 1964. No halon vapor monitoring system is present and no previous investigation has been conducted at the SWMU. For this investigation, a surface soil sample was collected from beneath the tank spigot. Analytical results indicate that all detected constituents in the surface soil are below risk-based trigger criteria. In addition, no COPCs were identified through the risk screen and all detected constituents in the soil are below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, indicating that there has been no significant release from the SWMU.

To detemine the waste classification (hazardous or nonhazardous) of the waste oil contained in the tank, a sample was collected from within the tank and analyzed for ignitability (SW1010) and TCLP (SW1311). The analytical results of the tank sample indicate that the waste oil is not ignitable below 140°C, but that it is TCLP hazardous for trichloroethene (TCE).

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceeds health-based criteria for ingestion and that it is highly unlikely that this SWMU poses a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

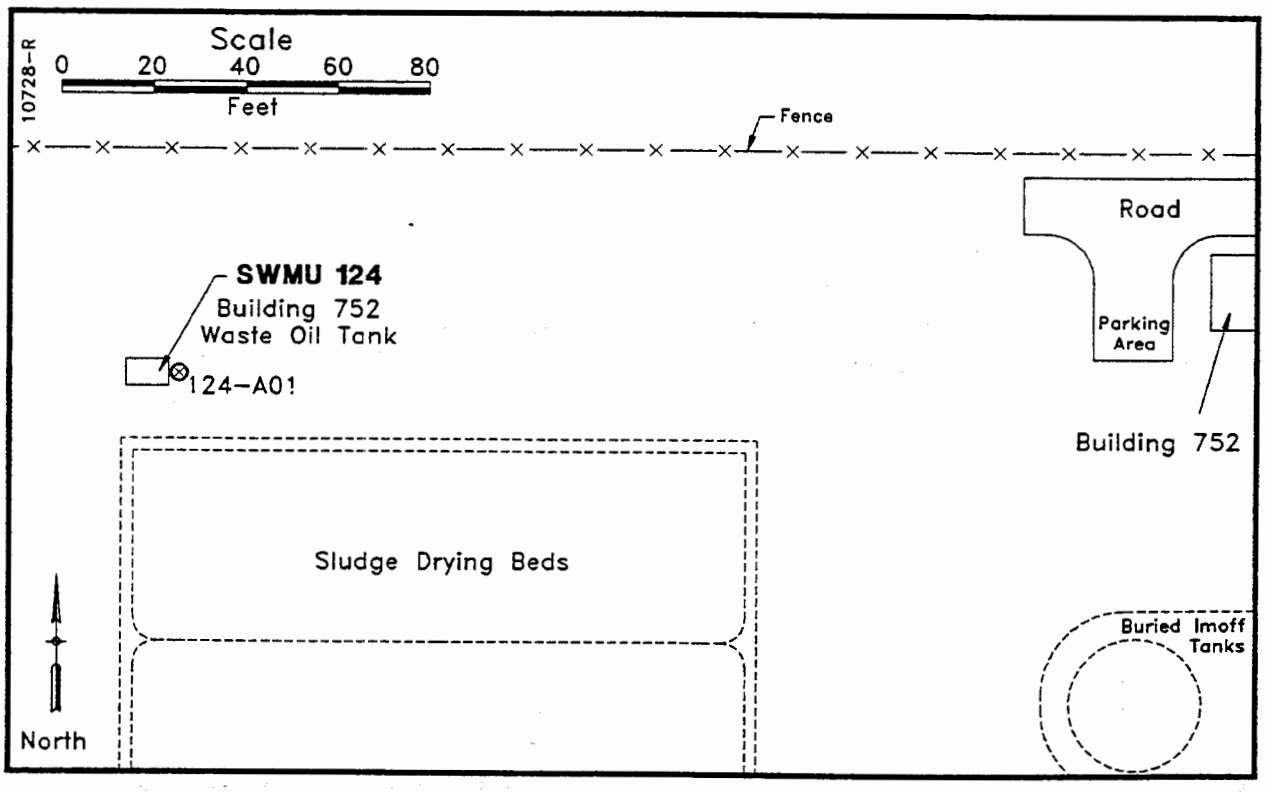


Figure 4.15-1. SWMU 124 Features and Sampling Location

NFA is recommended for the surface soil beneath the SWMU; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA. The contents of the tank, estimated to be 25 gal. will be transferred to DRMO and disposed of as hazardous waste.

4.15.1 SWMU Description

Physical Features—As shown in Figure 4.15-1, the waste oil tank is located approximately 150 ft west of Building 752, near the Base sewage lagoons. The area surrounding the tank is covered by gravel and soil.

Unit Description—The SWMU consists of an aboveground steel tank with an approximate capacity of 250 gal. The tank rests on a wooden cradle over a concrete pad. No secondary containment structures are present.

Waste Description—The tank has historically been used to store waste oil from various vehicle and equipment areas near Building 752. Analytical results (Table 4.15-2) indicate that ethyl benzene and TCE in addition to waste oil, are currently being stored in the tank.

Release History—Although a small release (approximately 10 gal.) was supposed to have occurred at the site, no staining, except for a very small area (approximately 1 ft diameter) was seen during the RFI. The tank contents were sampled and determined to be non hazardous (Table 4.15-2). The following information was not included in the 1994 Draft Final Phase 1 Table 2 RFI Report. The contents were removed from the tank and disposed of in 1994. The tank was subsequently turned in to DRMO to be recycled. The small amount of stained soil detected during the RFI was disposed of with the contents of the tank and therefore the stained soil is no longer present.

4.15.2 Site Investigation and Results

One surface soil sample was collected beneath the tank spigot, as shown in Figure 4.15-1. The tank itself was also sampled to characterize its contents for disposal purposes. A sample for geotechnical analysis was also collected. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The geology and hydrogeology at SWMU 124 were not evaluated during the RFI. Because of the closeness of the two units, however, the conditions at SWMU 124 may be considered to be similar to those at SWMU 155 (Sludge Drying Beds). The lithology at SWMU 155 consists primarily of sand and sandy-silt. Groundwater occurs in sandy silt at a depth of 3 ft bgl and flow to the southwest.

Analytical Results

The surface soil sample was analyzed for TRPH, VOCs, semivolatile organic compounds, and metals. Summary analytical results for the surface soil sample are presented in Table 4.15-1.

No VOCs or semivolatile organic compounds were detected at concentrations exceeding trigger criteria. Several VOCs and semivolatile organic compounds are estimated to be present at concentrations below detection limits. TCE and bis(2-ethylhexyl)- phthalate were detected at concentrations above detection limits.

Lead was detected at a concentration above UTL for background; however, no detected metals concentrations exceeded trigger criteria.

To characterize the waste (hazardous or nonhazardous) for disposal, the tank sample was analyzed for VOCs, semivolatile organic compounds, metals, and ignitability. Summary analytical results for the tank sample, presented in Table 4.15-2, were compared with TC levels

Table 4.15-1
Analytical Results for the Soil Sample—SWMU 124

Location ID		124-A01	
Sample ID		124-A01-01-01	
Beg. Depth-End Depth (ft)		0-0.33	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)			
Hydrocarbons	[1000]	840	(30.9)
SW8240 - Volatile Organics (μg/kg)			
Methylene chloride	[$9.3x10^4$]	0.963 BJ	(2.61)
Toluene	[$1.6x10^7$]	0.735 J	(2.48)
Trichloroethene	[NS]	5.32	(3.99)
SW8270 - Semivolatile Organics (μg/g)			
Benzo(a)anthracene	[.96]	0.0209 J	(0.0673)
Chrysene	[96]	0.0204 J	(0.089)
bis(2-Ethylhexyl)phthalate	[50]	0.97	(0.182)
SW6010 - Metals (mg/kg)			
Barium	[84.36,5600]	53.9	(0.0507)
Cadmium	[80]	0.831 B	(0.251)
Chromium	[$6.6,8x10^4$]	11.7	(0.239)
Silver	[0.73,400]	1.15 B	(0.16)
SW7060 - Arsenic (mg/kg)			
Arsenic	[6.88,24]	2.74	(0.257)
SW7421 - Lead (mg/kg)			
Lead	[12.3,500]	33.6 S	(1.3)
SW7740 - Selenium (mg/kg)			
Selenium	[10.53,400]	2.38	(0.229)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criterion for organics; [,] = UTL, trigger criterion for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
J = Estimated concentration, analyte detected at concentration below the detection limit.
S = Analyte concentration obtained using the MSA.

Table 4.15-2
Analtyical Results for the Sludge Sample—SWMU 124

Location ID	124-U01	
Sample ID	124-U01-01-01	
SW8240 - Volatile Organics (μg/L)		
Ethyl benzene	32200	(1250)
Methylene Chloride	2980 B	(1250)
Toluene	23100	(1250)
Trichloroethene	9310	(2500)
Xylene (total)	25800	(1250)
SW8270 - Semivolatile Organics (μg/g)		
1,2-Dichlorobenzene	5.01	(0.607)
1,3-Dichlorobenzene	2.8	(0.552)
1,4-Dichlorobenzene	3.29	(0.723)
2-Methylnaphthalene	147	(0.574)
4-Methylphenol/3-Methylphenol	11.1 F	(0.36)
Acenaphthene	4.87	(0.632)
Anthracene	0.345 J	(0.754)
Benzo(a)anthracene	0.571 J	(0.588)
Butylbenzylphthalate	3.7	(1.8)
Dibenzofuran	7.09	(0.548)
Dibutylphthalate	2.89	(0.489)
bis(2-Ethylhexyl)phthalate	59.6	(2.62)
Fluoranthene	1.56	(0.583)
Fluorene	5.44	(0.453)
Naphthalene	97.3	(0.763)
Phenanthrene	5.93	(0.652)
Pyrene	2.04	(0.699)
SW6010 - Metals (mg/kg)		
Arsenic	3.12	(1.56)
Barium	2.58	(0.0573)
Cadmium	7.13	(0.284)
Chromium	70.2	(0.27)
Lead	19.4 B	(2.45)
SW7471 - Mercury (mg/kg)		
Mercury	0.0196 B	(0.0047)
SW7740 - Selenium (mg/kg)		
Selenium	<DL S	(0.28)
SW1020 - Ignitability (Closed-Cup) (°F)		
Ignitability	>140	(NS)

Table 4.15-2
(Continued)

Note: Analyses were performed to characterize the contents of SWMU 124.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
F = 4-Methylphenol and 3-methylphenol co-elute. Results reported are for the sum of both compounds.
J = Estimated concentration, analyte detected at concentration below the detection limit.
S = Analyte concentration obtained using the MSA.

presented in Table 2-1 of the *Waste Management Plan* (Radian, 1993) to determine whether the contents are toxic.

4.15.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 124 to help determine the need for further investigation on the basis of potential human health or ecological risk. COPCs, exposure pathways, and receptors were identified.

Groundwater flow in this part of the Base is to the southwest. Surface water drains toward Sewage Treatment Lagoons A and B. There are no complete pathways for surface water or groundwater.

There are no on-site workers, but there are workers in nearby buildings, and the SWMU is approximately 100 ft south of a jogging path, so off-site workers and joggers could be exposed through inhalation of volatiles and fugitive dust. Workers could also be exposed through dermal contact with soil. Main Base residents are approximately one mile away and are not expected to be impacted by the SWMU.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. Only five constituents were detected in the surface soil and all concentrations are below EPA Region III screening criteria, so there are no COPCs for this SWMU.

The area around the SWMU provides habitat for wildlife. Potential exposure pathways are inhalation of volatiles and fugitive dust, incidental ingestion of soil while grooming or foraging, dermal contact with soil, and ingestion of contaminated plants. The sewage lagoons, Lake Stinky, and Lake Holloman are also used as a drinking water source by wildlife. However, it is unlikely that the low-level contamination present would impact these water bodies or wildlife.

4.15.4 Conclusions

Conclusions for the soil are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB. Conclusions for the waste oil contained in the tank are based on a comparison of the analytical results to TC regulatory levels presented in Table 2-1 of the *Waste Management Plan* (Radian 1993).

There does not appear to have been a release to the soil from SWMU 124. The concentration of all detected constituents are below both the risk-based trigger criteria and the New Mexico TRPH cleanup standard for Holloman AFB. In addition, no COPCs were identified through the qualitative risk screen; therefore, it is highly unlikely that SWMU 124 poses a significant risk to human health or the environment. The analytical results of the tank sample indicate that the waste oil is not ignitable below 140°C, but that it is TCLP hazardous for TCE.

4.15.5 Recommendations

NFA is recommended for SWMU 124. The waste oil tank, its non-hazardous contents, and the small amount of stained soil (0.05 cubic yards) were removed and disposed of appropriately. This site has been inactive since 1991 and therefore is recommended for NFA.

4.16 SWMU 136—Building 1119 Washrack Drainage Pit

SWMU 136 is on Table 2 of Holloman AFB's HSWA permit. The Building 1119 washrack was in use from 1980 to 1990. No previous investigation has been conducted at the SWMU. For this investigation, two soil borings were drilled in the the potentially aftected area immediately surrounding the SWMU. Analytical results indicate that none of the detected constituents, except TRPH, exceeds risk-based trigger criteria. A TRPH concentration above the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB was detected in two samples from 136-B01 located adjacent to the washrack, indicating that a potential release has occurred.

One exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that the SWMU poses a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the

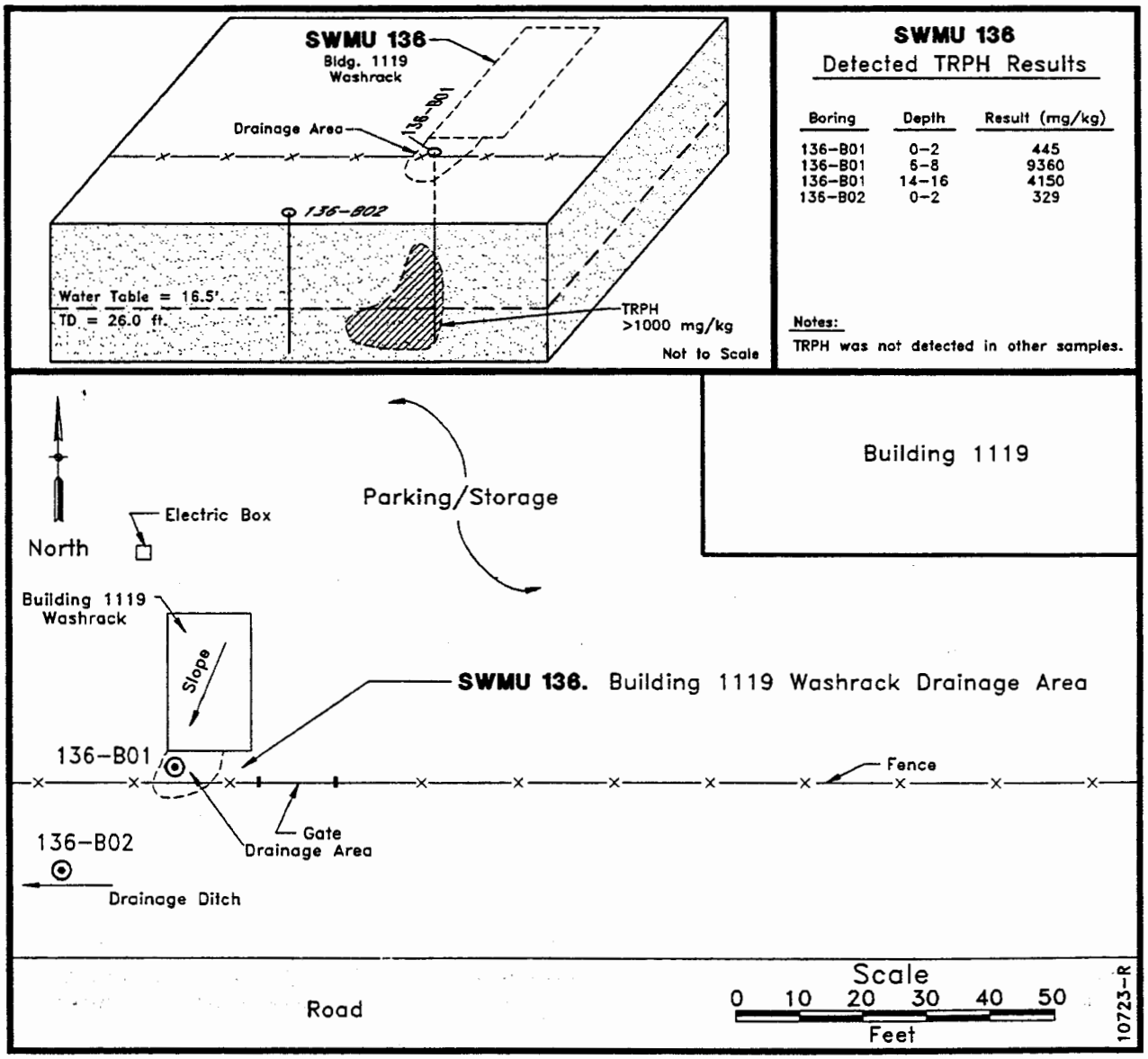


Figure 4.16-1. SWMU 136 Features and Sampling Locations

inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

Although no COPCs were identified through the risk-based screen, CNFA is recommended for SWMU 136; the CNFA is remediation of the TRPH-contaminated soil.

4.16.1 SWMU Description

Physical Features—As shown in Figure 4.16-1, SWMU 136 is located approximately 75 ft west-southwest of Building 1119.

Unit Description—The washrack measures 12 by 21 ft and consists of a concrete pad in poor condition with no secondary containment structures. SWMU 136 consists of a 7- by 12-ft gravel covered soil area considered to be a drainage pit to the south of the washrack. When use of the washrack was discontinued, the soil surrounding the pad was excavated to a depth of 8 ft, inspected for visible contamination, and then placed back in the excavation.

Waste Description—Rinsate containing waste fuel and oils from washing trucks and generators at the site. Rinsate was allowed to wash to the south down the slope of the pad, seeping directly into the gravel-covered soil area considered to be the drainage pit.

Release History—No previous investigation has been conducted at the site; however, rinsates were released directly into the soil periodically when the washrack was in use.

4.16.2 Site Investigation and Results

Two soil borings were drilled at the SWMU as shown in Figure 4.16-1. Split spoon samples were collected every 2 ft to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the surface interval, the interval intersecting groundwater, and the interval with the highest headspace reading in each boring. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 136 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and silty sand interbedded with clay lenses ranging in thickness from 2 to 3 ft. Groundwater occurs in silty sand approximately 20 ft bgl. Groundwater in this part of the Base generally flows to the west.

Analytical Results

All samples were analyzed for TRPH, VOCs, and metals. One sample was analyzed for semivolatile organic compounds because it was visibly contaminated. Summary analytical results are presented in Table 4.16-1.

Several VOCs were detected at concentrations at or below detection limits. A variety of VOCs, including 1,1,1-trichloroethane, acetone, ethylbenzene, toluene, and xylenes, were detected at elevated levels in some of the samples, but none at concentrations exceeding trigger criteria.

TRPH were detected in four samples. All detected concentrations were below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB, except in the samples from 6-8 ft and 14 to 16 ft at 136-B01, which has TRPH concentrations of 9360 mg/kg and 4150 mg/kg, respectively. The elevated levels of TRPH

Table 4.16-1
Analytical Results for Soil Samples—SWMU 136

Location ID		136-B01		136-B01		136-B01		136-B02	
Sample ID		136-B01-01-01		136-B01-02-01		136-B01-03-01		136-B02-01-01	
Beg. Depth-End Depth (ft)		0-2		6-8		14-16		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	445	(28)	9360	(166)	4150	(61.7)	329	(31.7)
SW8240 - Volatile Organics (μg/kg)									
1,1,1-Trichloroethane	[NS]	4.75	(2.33)	6230	(112)	953	(11.9)	ND	(2.83)
1,1-Dichloroethane	[$8x10^6$]	ND	(2.54)	38.6	(9.55)	67.2	(13)	ND	(2.19)
1,1-Dichloroethene	[$1.16x10^4$]	ND	(2.65)	456	(14.3)	ND	(13.5)	ND	(3.47)
Acetone	[$8x10^6$]	894	(81.2)	2360	(350)	733	(83.3)	12.9 BJ	(31.2)
Benzene	[$2.4x10^4$]	ND	(1.11)	4.74 J	(9.61)	6.13	(5.69)	ND	(1.91)
Carbon disulfide	[$8x10^6$]	ND	(2.95)	20.9	(14.4)	5.39 J	(15.1)	ND	(5.1)
Ethyl benzene	[$8x10^6$]	0.41 J	(1.07)	1270	(9.22)	260	(5.46)	ND	(2.02)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(7.85)	85.9	(8.49)	45.9	(40.1)	ND	(4.14)
Methylene chloride	[$9.3x10^4$]	ND	(2.31)	ND	(14.5)	34.9	(11.8)	3.57	(1.75)
Toluene	[$1.6x10^7$]	1.07 J	(2.2)	700	(9.48)	156	(11.3)	ND	(1.89)
xylene (total)	[$1.6x10^8$]	1.4 J	(4.96)	9270	(157)	992	(25.3)	ND	(4.09)
SW8270 - Semivolatile Organics (μg/g)									
2-Methylnaphthalene	[NS]	NA		48.5	(0.795)	NA		NA	
Acenaphthene	[4800]	NA		2.15	(0.792)	NA		NA	
Anthracene	[$2.4x10^4$]	NA		1.02	(0.641)	NA		NA	
Chrysene	[96]	NA		0.296 J	(0.795)	NA		NA	
Dibenzofuran	[NS]	NA		5.19	(0.606)	NA		NA	
Fluoranthene	[3200]	NA		0.413 J	(0.683)	NA		NA	
Fluorene	[3200]	NA		4.44	(0.567)	NA		NA	
Naphthalene	[NS]	NA		4.92	(0.691)	NA		NA	
Phenanthrene	[NS]	NA		11.8	(0.887)	NA		NA	
Pyrene	[2400]	NA		1.29	(0.486)	NA		NA	
SW6010 - Metals (mg/kg)									
Barium	[84.36.5600]	120	(0.0554)	88.8	(0.0535)	96.6	(0.0549)	43.6	(0.0506)
Cadmium	[80]	0.527 B	(0.275)	< DL	(0.265)	< DL	(0.272)	< DL	(0.251)
Chromium	[$6.6,8x10^4$]	16.1	(0.261)	9.12 B	(0.252)	13.3	(0.259)	4.15 B	(0.239)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	2.19 S	(0.276)	1.88 S	(0.657)	3.48 S	(0.524)	0.825 S	(0.318)
SW7421 - Lead (mg/kg)									
Lead	[12.3.500]	17.6 S	(0.962)	3.99 S	(0.183)	9.55 S	(0.292)	1.64 SB	(0.0804)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.48 S	(0.247)	0.615 S	(0.235)	0.838 S	(0.187)	1.32 S	(0.284)

Table 4.16-1 (Continued)

Location ID		136-B02		136-B02	
Sample ID		136-B02-02-01		136-B02-03-01	
Beg. Depth-End Depth (ft)		14-16		22-24	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)					
Hydrocarbons [1000]		< DL	(34.4)	< DL	(32.7)
SW8240 - Volatile Organics (μg/kg)					
1,1,1-Trichloroethane	[NS]	ND	(3.06)	ND	(2.87)
1,1-Dichloroethane	[$8x10^6$]	ND	(2.37)	ND	(2.23)
1,1-Dichloroethene	[$1.16x10^4$]	ND	(3.76)	ND	(3.53)
Acetone	[$8x10^6$]	9.05 BJ	(33.7)	29.5 BJ	(31.7)
Benzene	[$2.4x10^4$]	ND	(2.07)	ND	(1.95)
Carbon disulfide	[$8x10^6$]	ND	(5.52)	ND	(5.18)
Ethyl benzene	[$8x10^6$]	ND	(2.18)	ND	(2.05)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(4.49)	ND	(4.22)
Methylene chloride	[$9.3x10^4$]	10.6	(1.89)	13.1	(1.78)
Toluene	[$1.6x10^7$]	ND	(2.04)	ND	(1.92)
Xylene (total)	[$1.6x10^8$]	ND	(4.43)	ND	(4.16)
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	51.5	(0.0508)	35	(0.0508)
Cadmium	[80]	< DL	(0.252)	< DL	(0.252)
Chromium	[$6.6,8x10^4$]	5.23	(0.24)	4.11	(0.24)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	1.51 S	(0.325)	0.686 S	(0.281)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	2.53 S	(0.112)	1.55 S	(0.0985)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	2.57 S	(0.29)	2.41 SB	(0.251)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

correlate well with the distribution of stained soils observed at the SWMU. During drilling, stained soils were noted at 136-B01 beginning at 3 ft bgl and continuing below the groundwater surface. The staining was most prevalent from 3 to 16 ft, becoming less stained deeper in the boring. Although no surface staining was present, stressed vegetation was noted in the direction of 136-B02 from the edge of the washrack near 136-B01. TRPH were detected in all of the samples from 136-B01 and in the surface sample from 136-B02, but were only elevated above the standard of 1000 mg/kg where the staining was most prevalent at 136-B01.

The contamination at this site was limited to TPH at levels which do not pose a threat to groundwater. Also, the limited number of volatile and semi-volatile organic compounds detected in soil samples from the site are all in the µg/kg range and are adsorbed into the soil. Therefore, the potential for groundwater contamination is negligible and the need to sample groundwater does not exist.

Barium, chromium, and lead were detected at concentrations above UTLs for background in several of the samples. However, none of the detected concentrations of metals exceeded trigger criteria.

4.16.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 136 to help determine the need for further investigation on the basis of potential human health or ecological risk. Potential exposure pathways, receptors, and COPCs were identified.

Groundwater in this part of the Base flows to the west. Surface runoff also flows to the west. There are no complete pathways for groundwater or surface water. The surrounding land is used as a storage area for generators, trucks, and trailers. The soil around the washrack was reportedly removed when use of the washrack ceased.

The potential receptors are on-site employees. The only potential exposure pathways to employees are through inhalation of volatiles and fugitive dust migrating from the SWMU, and limited dermal contact with and incidental ingestion of soil while working at the washrack. Residents in the Main Base area are too far away to be impacted by volatiles, and there are no other complete pathways to these residents.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil are below EPA Region III screening criteria, so there are no COPCs for this SWMU.

The area is fenced, but small animals may still gain access. Wildlife could be exposed through ingestion of plants potentially contaminated by groundwater or soil. However, groundwater is approximately 20 ft deep, and the area is not widely vegetated. Furthermore, since plants near the SWMU are sparse and the fraction of the diet obtained near the SWMU very low, ingestion of potential contaminants in plants is expected to be insignificant. Wildlife could be exposed through incidental ingestion of soil. However, the area offers only limited habitat, and few contaminants were detected in surface soil, so this pathway is also unlikely to pose a risk.

4.16.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of

the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

A release to the soil has occurred at SWMU 136; however, the impact of the units is minimal. The primary concern is the TRPH concentrations of 9360 mg/kg (6-8 ft) and 4150 (14-16 ft) in the soil at Boring 136-B01. However, TRPH concentrations in the overlying soil and adjacent borings were all less than 445 mg/kg, suggesting that TRPH contamination is restricted to a small area. The other soil analytical results do not provide strong evidence that a release of other constituents has occurred.

4.16.5 Recommendations

CNFA is recommended; the condition of NFA is remediation of TRPH-contaminated soil. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. The remediation is being accomplished using a bioventing system. The *Final Construction Work-plan for the SWMU 36, Building 1119 Washrack Drainage Pit Soil, Bioventing System, Holloman Air Force Base, New Mexico, May 1997* was approved in July 1997. The system has been operational since May 1997 and is anticipated to operate through 1998 at which time confirmation borings will be taken to document that site soil TPH levels are less than 1000 mg/kg.

4.17 SWMU 155—Sludge Drying Beds

SWMU 155 is on Table 2 of Holloman AFB's HSWA permit. The sludge drying beds were an active phase in Holloman AFB's wastewater treatment system from the 1950s until 1982, at which time the sewage lagoons became the main wastewater treatment process. No historical data exist for SWMU 155. However, the nearby sewage lagoons have been extensively investigated. For this investigation, 2- and 4-ft-deep trenches were dug across the sludge drying beds, and three hand auger samples were collected from the most visibly contaminated areas in each trench. Analytical results indicate that all detected constituents, with the exception of beryllium, are below trigger criteria. Detected concentrations of beryllium, however, are within normal basewide background levels. The results of the qualitative risk assessment indicate that, although beryllium was identified as a COPC, slightly elevated levels of beryllium are highly unlikely to pose a significant risk to human health or the environment. NFA is recommended. A Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.17.1 SWMU Description

Physical Features—As shown in Figure 4.17-1, SWMU 155 is located approximately 100 ft west of Building 752. As-built drawings were used to locate the area, since the drying beds themselves have been removed.

Unit Description—The SWMU consisted of three sludge drying beds, each approximately 50 ft wide by 150 ft long. While in operation, sludge was pumped from the bottom of the Imhoff tanks to the unlined beds, where it remained until dry. When the drying beds were deactivated in 1982, all of the sludge, the associated piping, and the concrete berms were removed.

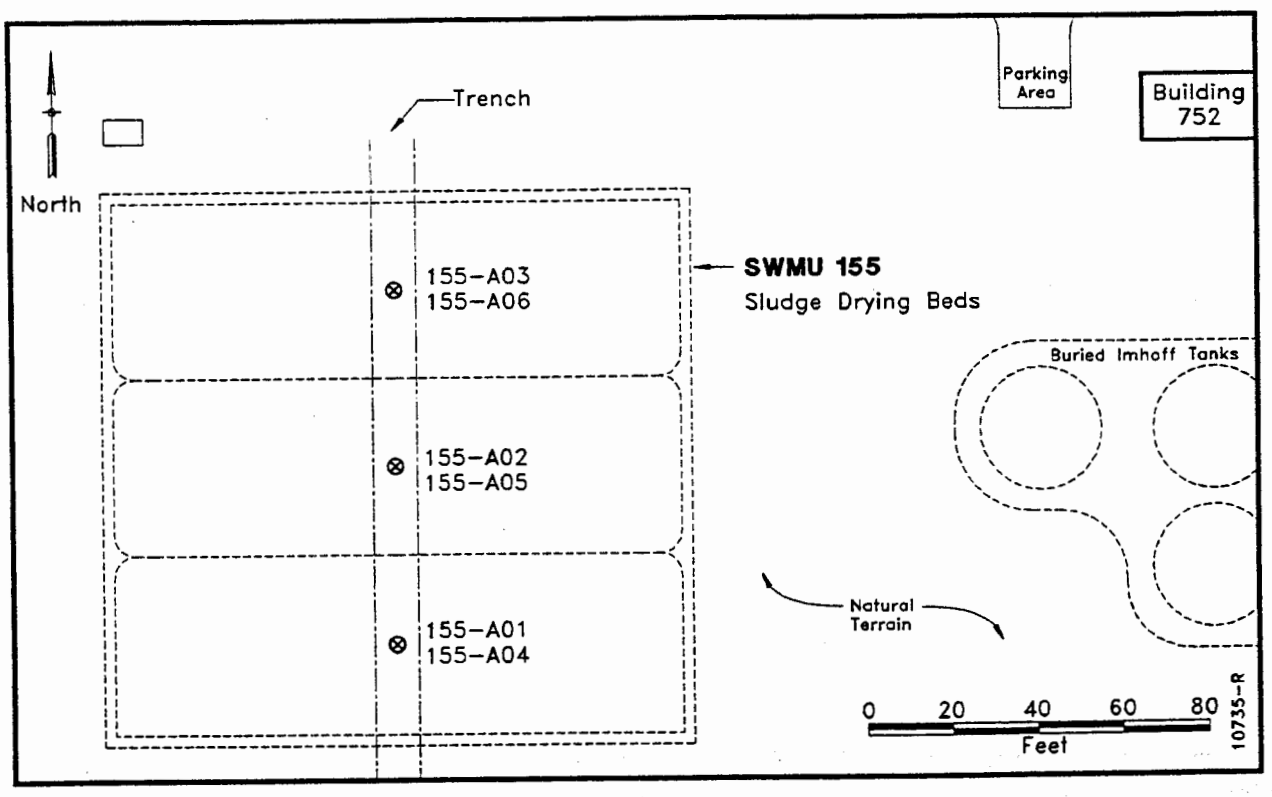


Figure 4.17-1. SWMU 155 Features and Sampling Locations

Waste Description—While in operation, wastewater potentially containing sanitary wastes and de minimis quantities of dissolved hydrocarbons, solvents, industrial cleaners, paint stripper, methanol, acetone, and formaldehyde were processed by the wastewater treatment system. Based on the waste status determination provided by NMED and EPA, Region VI for the wastes contained in the treatment lagoons, the wastes managed in the sludge drying beds are not listed waste.

Release History—There is no record of a release at the site. However, the potential for past releases is high, since the unit was not lined and a release further into the soil beneath the SWMU would not be visible.

4.17.2 Site Investigation and Results

Two- and 4-ft-deep trenches were dug transecting the former sludge drying beds. Three hand auger samples were collected from the most visibly contaminated areas in each trench. A soil sample for geotechnical analysis was also collected. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 155 were defined by direct sampling and observation of the trenching operations at the site. Site lithology consists primarily of sand and sandy silt. Staining and a strong petroleum odor were noted from 1 to 4 ft during trenching activities at the site. Groundwater occurs in sandy silt approximately 3 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for VOCs, nonhalogenated VOCs, semivolatile organic compounds, organochlorine and organophosphorus pesticides, chlorinated herbicides, PCBs, sulfide, cyanide, and metals. Summary analytical results are presented in Table 4.17-1.

All detected concentrations of VOCs were below trigger criteria. Most of the VOCs detected were at concentrations near or below detection limits. Acetone was detected in four samples, but at concentration below trigger criteria. Ethylbenzene and xylenes were detected at ppm levels in the sample from 155-A05, which was collected from the 4-ft-deep trench. Cyclohexanes were also detected in this sample as tentatively identified compounds (TICs).

No semivolatile organic compounds were detected at concentrations above trigger criteria. Several semivolatile compounds were detected in the sample from 155-A05, nearly all at concentrations below detection limits.

All detected concentrations of pesticides and herbicides are below trigger criteria. Pesticides and herbicides were detected in most samples, but almost all were at concentrations below detection limits, or were not confirmed on the second gas chromatograph (GC) column, so their presence and concentration are uncertain. The pesticides and herbicides whose identity and concentration were confirmed by analysis on a second GC column are at least one order of magnitude less than the trigger criteria.

Silver, vanadium, and mercury were detected at concentrations above background UTLs in several samples. In the sample from 155-A05, chromium, copper, and zinc were also detected at concentrations above background UTLs. However, all of the detected metals (with the exception of mercury) occur naturally in background soil at the Base and none of these metals, except beryllium, exceed trigger criteria.

No cyanide was detected at this SWMU, but sulfide was detected in 155-A05. No trigger criterion is specified for sulfide in soil.

Table 4.17-1
Analytical Results for Soil Samples—SWMU 155

Location ID		155-A01		155-A02		155-A03		155-A04	
Sample ID		155-A01-01-01		155-A02-01-01		155-A03-01-01		155-A04-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		2-4	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)									
Acetone	[$8x10^3$]	ND	(5.73)	ND	(5.93)	ND	(5.83)	ND	(6.19)
Methyl ethyl ketone	[$4.8x10^4$]	ND	(4.07)	ND	(4.21)	ND	(4.14)	ND	(4.4)
SW8240 - Volatile Organics (µg/kg)									
1,1-Dichloroethene	[$1.16x10^4$]	ND	(3.69)	ND	(2.99)	ND	(2.96)	ND	(3.08)
Acetone	[$8x10^6$]	15.6 J	(33.1)	18.6 B	(1.75)	22.4 B	(1.73)	61.2 B	(1.81)
Benzene	[$2.4x10^4$]	ND	(2.03)	ND	(2.01)	ND	(1.99)	0.711 J	(2.08)
Carbon disulfide	[$8x10^6$]	ND	(5.41)	4.69	(3.02)	4.41	(2.99)	ND	(3.11)
Chloromethane	[$5.4x10^5$]	ND	(2.92)	0.593 J	(2.84)	ND	(2.81)	ND	(2.93)
Ethyl benzene	[$8x10^6$]	ND	(2.14)	ND	(1.93)	ND	(1.91)	ND	(1.99)
Methyl ethyl ketone	[$4.8x10^7$]	7.07	(4.4)	ND	(1.78)	ND	(1.76)	7.92	(1.83)
Methylene chloride	[$9.3x10^4$]	ND	(1.86)	ND	(3.05)	ND	(3.02)	5.42 B	(3.14)
Toluene	[$1.6x10^7$]	ND	(2.01)	ND	(1.99)	ND	(1.96)	ND	(2.05)
Xylene (total)	[$1.6x10^8$]	ND	(4.35)	ND	(4.25)	ND	(4.2)	ND	(4.38)
SW8240 - Volatile Organics TICs (µg/kg)									
Isopropyl alcohol	[NS]	NA		10	(NS)	NA		NA	
Tetrahydrofuran	[NS]	10	(NS)	NA		NA		NA	
SW8270 - Semivolatile Organics (µg/g)									
1,4-Dichlorobenzene	[292]	ND	(0.0317)	ND	(0.0323)	ND	(0.0322)	ND	(0.0332)
2-Methylnaphthalene	[NS]	ND	(0.0327)	ND	(0.0334)	ND	(0.0333)	ND	(0.0343)
Acenaphthene	[4800]	ND	(0.0327)	ND	(0.0334)	ND	(0.0332)	ND	(0.0342)
Anthracene	[$2.4x10^4$]	ND	(0.0264)	ND	(0.027)	ND	(0.0268)	ND	(0.0277)
Chrysene	[96]	ND	(0.0327)	ND	(0.0334)	ND	(0.0333)	ND	(0.0343)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0669)	ND	(0.0684)	ND	(0.068)	ND	(0.0701)
Fluoranthene	[3200]	ND	(0.0282)	ND	(0.0288)	ND	(0.0286)	ND	(0.0295)
Fluorene	[3200]	ND	(0.0234)	ND	(0.0239)	ND	(0.0237)	ND	(0.0245)
Naphthalene	[NS]	ND	(0.0285)	ND	(0.0291)	ND	(0.0289)	ND	(0.0298)
Phenanthrene	[NS]	ND	(0.0366)	ND	(0.0373)	ND	(0.0371)	ND	(0.0383)
Pyrene	[2400]	ND	(0.02)	ND	(0.0205)	ND	(0.0203)	ND	(0.021)
SW8080 - Organochlorine Pesticides and PCBs (µg/kg)									
4,4'-DDD	[2917]	ND	(21.6)	ND	(2.21)	1.43 J	(2.18)	ND	(22.8)
4,4'-DDE	[2059]	ND	(4.32)	ND	(0.441)	0.877	(0.436)	ND	(4.56)
4,4'-DDT	[2059]	ND	(6.21)	ND	(0.634)	1.51	(0.627)	ND	(6.55)
Dieldrin	[43.75]	ND	(4.32)	ND	(0.524)	0.888	(0.518)	ND	(4.56)
Endosulfan II	[NS]	ND	(16.2)	ND	(1.66)	0.0252 KJ	(0.409)	ND	(17.1)
Endosulfan sulfate	[NS]	ND	(11.7)	ND	(1.29)	0.0905 KJ	(1.18)	ND	(12.3)
Endrin aldehyde	[NS]	ND	(9.89)	ND	(1.01)	0.235 KJ	(0.999)	ND	(10.4)
Heptachlor epoxide	[76.92]	ND	(2.97)	3.64 P	(0.303)	0.0613 PJ	(0.3)	ND	(3.13)
gamma-Chlordane	[NS]	ND	(3.24)	ND	(0.248)	0.195 PJ	(0.245)	ND	(3.42)
SW8140 - Organophosphorus Pesticides (µg/kg)									
Diazinon	[7.2x10 4]	ND	(12.8)	2.12 J	(13.3)	1.34 J	(12.9)	ND	(277)
Ethoprop	[NS]	ND	(10.2)	8.19 KJ	(8.78)	3.63 KJ	(8.52)	ND	(221)
Fensulfothion	[NS]	4.93 PJ	(14.4)	4.3 KJ	(13.6)	3.23 KJ	(13.2)	ND	(311)
Methyl azinphos	[NS]	2.1 KJ	(12)	ND	(12.4)	ND	(12.1)	ND	(13)
Methyl parathion	[$2x10^4$]	ND	(11.1)	112 KJ	(230)	71.9 KJ	(223)	ND	(8.12)

Table 4.17-1 (Continued)

Location ID		155-A01		155-A02		155-A03		155-A04	
Sample ID		155-A01-01-01		155-A02-01-01		155-A03-01-01		155-A04-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		2-4	
SW8140 - Organophosphorus Pesticides (µg/kg) (continued)									
Naled	[NS]	ND	(563)	ND	(11.7)	9.51 KJ	(15.1)	5.97 KJ	(12.2)
Phorate	[$1.6x10^4$]	ND	(25.4)	1.01 KJ	(22.9)	1.03 KJ	(22.2)	ND	(550)
Tetrachlorvinphos	[$2.9x10^5$]	1.37 KJ	(11.5)	1.01 KJ	(11.9)	ND	(11.6)	ND	(249)
SW8150 - Chlorinated Herbicides (µg/kg)									
2,4,5-T	[$8x10^5$]	5.4 PJ	(17.2)	6.43 PJ	(17.8)	6.17 PJ	(17.5)	3.08 PJ	(17.9)
Dicamba	[$2.4x10^6$]	ND	(2.62)	ND	(2.71)	ND	(2.66)	ND	(2.73)
Dichloroprop	[NS]	29.2 PJ	(46.8)	22.4 PJ	(48.5)	19.7 PJ	(47.5)	12.3 PJ	(48.8)
MCPA	[$4x10^4$]	5100 KJ	(8570)	ND	(8870)	ND	(8690)	ND	(8930)
MCPP	[NS]	ND	(2410)	ND	(2500)	ND	(2450)	ND	(2510)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	50.5	(0.0484)	40.6	(0.0514)	63	(0.0536)	42	(0.0525)
Beryllium	[.4,.16]	0.205	(0.0493)	0.126	(0.0523)	0.164	(0.0545)	0.125	(0.0534)
Chromium	[$6.6,8x10^4$]	5.46	(0.228)	4.82	(0.242)	6.1	(0.253)	5.93	(0.248)
Cobalt	[NS]	1	(0.437)	1.38	(0.463)	1.23	(0.483)	1.63	(0.474)
Copper	[4.84,2960]	1.72 B	(0.207)	1.46 B	(0.219)	4.58	(0.229)	2.48	(0.224)
Silver	[0.73,400]	< DL	(0.153)	< DL	(0.162)	1.98	(0.169)	0.238 B	(0.166)
Vanadium	[15.46,560]	16.8	(0.36)	13.4	(0.382)	14.8	(0.398)	21.3	(0.39)
Zinc	[20.25,$2.4x10^4$]	8.95	(0.243)	6.26	(0.258)	8.82	(0.269)	10.9	(0.264)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	1.65	(0.633)	3.76	(0.787)	2.7	(0.752)	1.09 S	(0.568)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	1.76 B	(0.305)	9.76	(0.321)	2.7	(0.313)	2.52 B	(0.412)
SW7471 - Mercury (mg/kg)									
Mercury	[-0.0006,24]	< DL	(0.0162)	< DL	(0.0167)	< DL	(0.0164)	< DL	(0.0171)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.86	(0.226)	2.61	(0.281)	2.61	(0.269)	1.82	(0.203)
SW7841 - Thallium (mg/kg)									
Thallium	[11.3]	< DL	(0.186)	< DL	(0.231)	< DL	(0.221)	0.151 SB	(0.0835)
SW9030 - Total Sulfide (mg/kg)									
Sulfide	[NS]	< DL	(33.8)	< DL	(34.5)	< DL	(34)	< DL	(35.6)

Table 4.17-1 (Continued)

Location ID		155-A05		155-A06	
Sample ID		155-A05-01-01		155-A06-01-01	
Beg. Depth-End Depth (ft)		2-4		2-4	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)					
Acetone	[$8x10^3$]	ND	(7.22)	ND	(5.56)
Methyl ethyl ketone	[$4.8x10^4$]	ND	(5.13)	ND	(3.95)
SW8240 - Volatile Organics (µg/kg)					
1,1-Dichloroethene	[$1.16x10^4$]	89.8	(81.8)	ND	(2.9)
Acetone	[$8x10^6$]	ND	(131)	28.5	(1.7)
Benzene	[$2.4x10^4$]	9.34 J	(113)	ND	(1.95)
Carbon disulfide	[$8x10^6$]	53 J	(106)	ND	(2.93)
Chloromethane	[$5.4x10^5$]	ND	(87.4)	ND	(2.76)
Ethyl benzene	[$8x10^6$]	878	(74.9)	ND	(1.87)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(127)	4.31	(1.73)
Methylene chloride	[$9.3x10^4$]	ND	(126)	ND	(2.96)
Toluene	[$1.6x10^7$]	50.8	(47)	ND	(1.93)
Xylene (total)	[$1.6x10^8$]	2090	(146)	ND	(4.12)
SW8240 - Volatile Organics TICs (µg/kg)					
Alkyl cyclohexane	[NS]	5000	(NS)	NA	
Cyclohexane	[NS]	200	(NS)	NA	
SW8270 - Semivolatile Organics (µg/g)					
1,4-Dichlorobenzene	[292]	0.0948 J	(0.107)	ND	(0.0314)
2-Methylnaphthalene	[NS]	11.3	(0.111)	ND	(0.0324)
Acenaphthene	[4800]	0.221	(0.111)	ND	(0.0323)
Anthracene	[$2.4x10^4$]	0.0537 J	(0.0894)	ND	(0.0262)
Chrysene	[96]	0.0651 J	(0.111)	ND	(0.0324)
bis(2-Ethylhexyl)phthalate	[50]	0.496	(0.227)	ND	(0.0663)
Fluoranthene	[3200]	0.0663 J	(0.0954)	ND	(0.0279)
Fluorene	[3200]	1.08	(0.0791)	ND	(0.0231)
Naphthalene	[NS]	1.7	(0.0964)	ND	(0.0282)
Phenanthrene	[NS]	0.948	(0.124)	ND	(0.0362)
Pyrene	[2400]	0.0773	(0.0678)	ND	(0.0198)
SW8080 - Organochlorine Pesticides and PCBs (µg/kg)					
4,4'-DDD	[2917]	285	(126)	ND	(21.4)
4,4'-DDE	[2059]	ND	(18.9)	ND	(4.28)
4,4'-DDT	[2059]	ND	(36.2)	ND	(6.15)
Dieldrin	[43.75]	ND	(29.9)	ND	(5.08)
Endosulfan II	[NS]	ND	(94.3)	ND	(16)
Endosulfan sulfate	[NS]	ND	(68.1)	ND	(11.6)
Endrin aldehyde	[NS]	ND	(57.7)	ND	(9.8)
Heptachlor epoxide	[76.92]	6.11 PJ	(17.3)	ND	(2.94)
gamma-Chlordane	[NS]	8.62 J	(18.9)	ND	(3.21)
SW8140 - Organophosphorus Pesticides (µg/kg)					
Diazinon	[$7.2x10^4$]	ND	(307)	1.39 KJ	(26.3)
Ethoprop	[NS]	ND	(203)	ND	(515)
Fensulfothion	[NS]	ND	(344)	ND	(725)
Methyl azinphos	[NS]	ND	(716)	ND	(607)
Methyl parathion	[$2x10^4$]	ND	(180)	ND	(379)
Naled	[NS]	ND	(360)	7.78 KJ	(11.4)

Table 4.17-1 (Continued)

Location ID		155-A05		155-A06	
Sample ID		155-A05-01-01		155-A06-01-01	
Beg. Depth-End Depth (ft)		2-4		2-4	
SW8140 - Organophosphorus Pesticides (µg/kg) (continued)					
Phorate	[1.6x10⁴]	ND	(609)	ND	(1280)
Tetrachlorvinphos	[2.9x10⁵]	ND	(276)	ND	(581)
SW8150—Chlorinated Herbicides (µg/kg)					
2,4,5-T	[8x10⁵]	7.35	(4.06)	2.71 PJ	(16.9)
Dicamba	[2.4x10⁶]	0.937 KJ	(3.09)	ND	(2.58)
Dichloroprop	[NS]	23 PJ	(55.2)	10.9 PJ	(46)
MCPA	[4x10⁴]	ND	(10100)	ND	(8420)
MCPP	[NS]	8370 P	(2850)	8860 KJ	(8940)
SW6010 - Metals (mg/kg)					
Barium	[84.36,5600]	57.2	(0.0634)	60	(0.0464)
Beryllium	[.4,.16]	0.193	(0.0645)	0.117	(0.0472)
Chromium	[6.6,8x10⁴]	8.48	(0.299)	5.3	(0.219)
Cobalt	[NS]	2.08 B	(0.572)	1.64 B	(0.418)
Copper	[4.84,2960]	5.93	(0.271)	2.79	(0.198)
Silver	[0.73,400]	3.42	(0.2)	0.265 B	(0.147)
Vanadium	[15.46,560]	19	(0.471)	14.5	(0.345)
Zinc	[20.25,2.4x10⁴]	31.4	(0.319)	8.96	(0.233)
SW7060 - Arsenic (mg/kg)					
Arsenic	[6.88,24]	0.737 S	(0.685)	2.99 S	(0.687)
SW7421 - Lead (mg/kg)					
Lead	[12.3,500]	8.13	(0.442)	3.5	(0.404)
SW7471 - Mercury (mg/kg)					
Mercury	[NS,24]	0.0357	(0.019)	0.03	(0.016)
SW7740 - Selenium (mg/kg)					
Selenium	[10.53,400]	2.23	(0.245)	2.28	(0.245)
SW7841 - Thallium (mg/kg)					
Thallium	[11.3]	0.0953 SBJ	(0.101)	0.0777 SBJ	(0.1)
SW9030 - Total Sulfide (mg/kg)					
Sulfide	[NS]	80.1	(38.9)	< DL	(33.4)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = Trigger criterion for organics; [,] = UTL, trigger criterion for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
K = Not confirmed, peak did not meet method identification criteria. Analyte not detected on other GC column.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
P = Analyte concentration not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.
S = Analyte concentration obtained using MSA.

4.17.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 155 to help determine the need for further investigation on the basis of potential human health or ecological risk. COPCs, exposure pathways, and receptors were identified.

Groundwater flow in this part of the Base is to the southwest. Surface water runoff may flow into Sewage Treatment Lagoon B. There are no on-site workers, but there are workers in nearby buildings, and a jogging path is located approximately 100 ft from the SWMU. The SWMU consists of an area of bare soil where sludge drying beds used to rest. It is not vegetated. Off-site workers and joggers could be exposed through inhalation of volatiles and fugitive dust. Workers could also be exposed through dermal contact with soil. The Main Base area is approximately 1 mile away, so Base residents are not expected to be impacted by the SWMU.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil, with the exception of beryllium, are below EPA Region III screening criteria; therefore, beryllium is the only COPC identified for this SWMU. However, even though beryllium was identified as a COPC, it is naturally present in Base background soils at concentrations greater than concentrations detected at this SWMU.

If surface water reaches the lagoons and lakes, wildlife may be exposed through inhalation of volatiles from water, ingestion of contaminated surface water at the sewage lagoons and Lakes Holloman and Stinky, incidental ingestion of soil at the lake edges, and ingestion of potentially contaminated plants. Because contamination is subsurface, direct contact with constituents is not expected to be significant.

4.17.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

Stained soils noted from 1 to 4 ft bgl during trenching at SWMU 155 indicate that there has been a release from the SWMU. Analytical results of soil samples collected from within the stained interval, however, indicate that all detected constituents, with the exception of beryllium, are below trigger criteria. Although beryllium exceeds trigger criteria, it does not exceed the range of detected basewide background levels for beryllium, and is unlikely to pose a risk to human health or the environment.

In support of these findings, the EPA has issued a policy directive that provides the opportunity for potentially contaminated media to be excluded from the listed waste definition. This policy, known as the "contained-in" policy and outlined in a letter provided in Appendix A of the *Waste Management Plan* (Radian, 1993), states that if the listed waste constituent concentrations are below relevant health-based levels (HBLs) the contaminated media (soil) will not be considered to contain hazardous wastes. This guidance, in support of the analytical results and the findings of the qualitative risk assessment, indicate that although a variety of constituents were detected at SWMU 155, all detected constituents are below the HBLs presented in Table 2-2 of the *Waste Management Plan*, and the contaminated soil associated with SWMU 155 may be considered nonlisted waste.

4.17.5 Recommendations

NFA is recommended; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA. In the future, if further action is required, SWMU 155 can be addressed in conjunction with the ongoing sewage lagoons investigation and remediation program.

4.18 SWMU 156—Imhoff Tanks

SWMU 156 is on Table 2 of Holloman AFB's HSWA permit. The Imhoff Tanks operated from 1950 to 1982. No previous investigation has occurred at SWMU 156. However, the nearby Sewage Lagoons have been extensively investigated. For this investigation four soil borings were drilled at the SWMU, and a sludge sample was collected from one of the tanks to characterize its contents. Analytical results indicate that all detected constituents, with the exception of beryllium, are below trigger criteria. The results of the qualitative risk assessment indicate that, although beryllium was identified as a COPC, slightly elevated levels of beryllium alone are highly unlikely to pose a significant risk to human health or the environment. NFA is recommended. A Class 3 permit modificatioin request will be completed by Holloman AFB to achieve NFA.

4.18.1 SWMU Description

Physical Features—SWMU 156 is located approximately 30 ft south of Building 752. The outline of the Imhoff Tanks is visible beneath a gently sloping mound of fill dirt that is intended to cover the tanks.

Unit Description—The SWMU consists of five cylindrical concrete tanks with diameters of approximately 26 ft, and depths of 24.5 to 42 ft. The Imhoff Tanks operated as in-ground units to remove sludge from the primary sewage received from throughout the Base. The sludge was pumped from the bottom of the Imhoff Tanks to the sludge drying beds (i.e., SWMU 155). The water was collected by an underground piping system and discharged into the Sewage Lagoons.

Waste Description—While in operation, wastewater potentially containing sanitary wastes and de minimis quantities of dissolved hydrocarbons, solvents, industrial cleaners, paint stripper, methanol, acetone, and formaldehyde were processed by the wastewater treatment system. Based on the waste status determination provided by NMED and EPA, Region VI for the wastes contained in the treatment lagoons, the wastes managed in the imhoff tanks are not listed waste.

Release History—There is no record of a release at the site. Sewer-like waste was observed in the soil boring to the west of the tanks during drilling operations at the SWMU; this waste is believed to be the result of a break in the sewer line that flows from Building 752 and not from a release from SWMU 156.

4.18.2 Site Investigation and Results

Four soil borings were drilled at the SWMU, as shown in Figure 4.18-1. Split spoon samples were collected every 2 ft from the surface to the bottom of the nearest tank. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were originally to be collected at a depth of 4 ft bgl, at groundwater, and at a depth of the bottom of the nearest Imhoff tank. According to as-built drawings, the depth to the bottom of the westernmost tank is 24.5 ft, and the depth of the other four tanks is 42.0 ft. The depth to groundwater (3 ft) of the second originally scoped sample, however, coincided with one another; therefore, the second sample was collected from the most visibly contaminated interval, if encountered. A soil sample for geotechnical analysis was collected from one of the borings. Geotechnical results are provided in Appendix E.

Attempts to drill borings in the Imhoff Tanks to collect sludge samples were unsuccessful because internal structures made of reinforced concrete are still in place, and hollow stem auger technology is not appropriate for auger drilling through reinforced concrete. Instead, a hand auger was used in place of hollow stem tech-

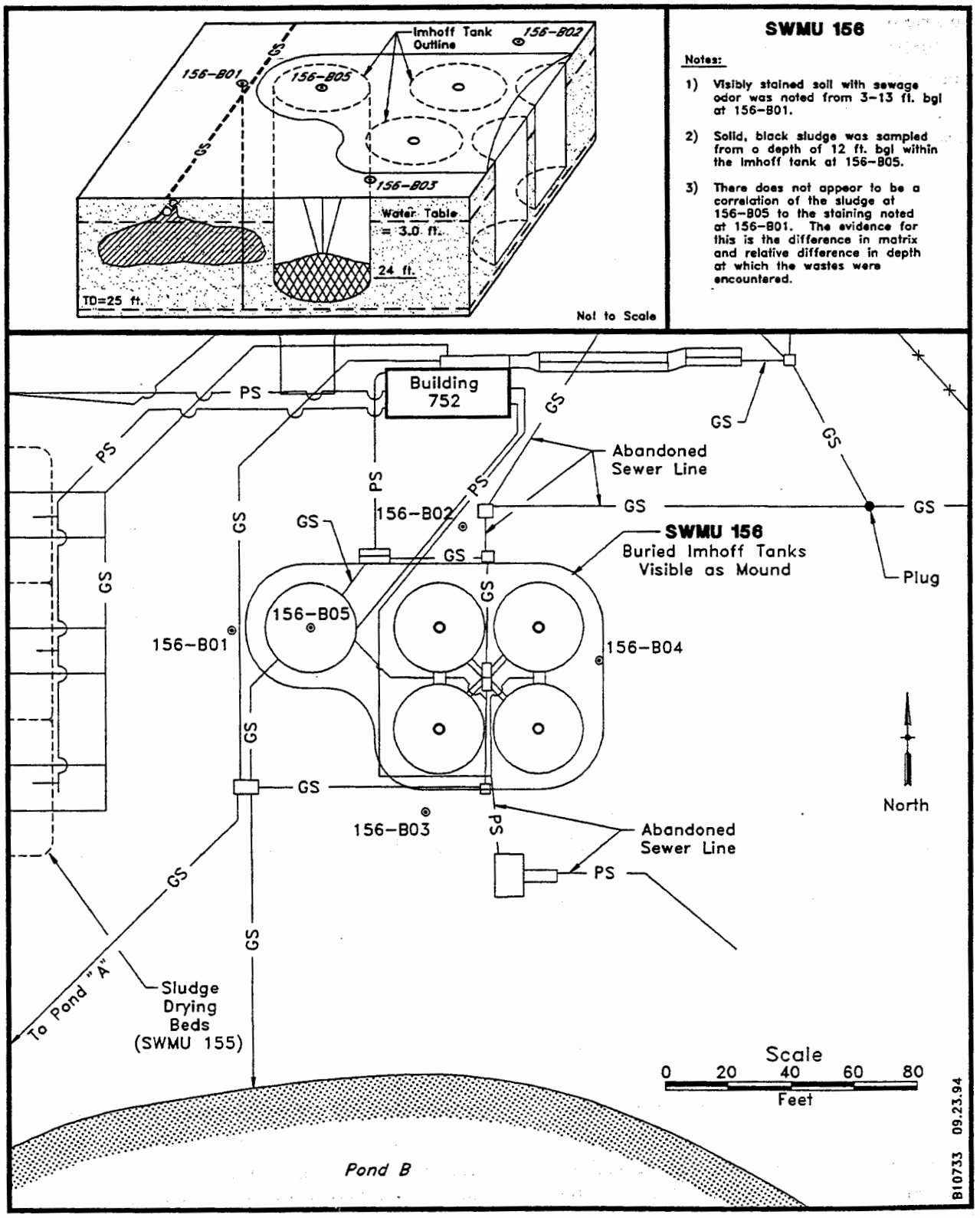


Figure 4.18-1. SWMU 156 Features and Sampling Locations

nology in an attempt to collect the sludge samples from the tanks. It was not possible to reach the bottom of the tanks because of the presence of intermediate concrete structures. However, these structures in the western most tank were found to have a sludge residue, so a sludge sample was collected from the western most tank using a hand auger. No sludge residue was encountered in the other four tanks.

Geology and Hydrogeology

The subsurface conditions at SWMU 156 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand, sandy silt, and clay. Large gypsum crystals are found in the clay units. Groundwater occurs in silty clay approximately 3 ft bgl. Groundwater in this part of the Base generally flows to the southwest.

Analytical Results

All samples were analyzed for VOCs, semivolatile organic compounds, nonhalogenated VOCs, organochlorine and organophosphorous pesticides, PCBs, chlorinated herbicides, and metals. Summary analytical results for soil samples are presented in Table 4.18-1. Summary analytical results for the sludge sample are presented in Table 4.18-2.

No organic compounds were detected at concentrations above trigger criteria. Several volatile, semivolatile, and nonhalogenated volatile organic compounds were detected at concentrations below detection limits. Methyl ethyl ketone and/or acetone were detected in several samples, but acetone was also detected at similar concentrations in some associated method blanks, so its presence in the samples is uncertain. Reported acetone results near the detection limit are likely due to low-level laboratory contamination. Carbon disulfide, methylene chloride, 2-methyl-naphthalene, and several TICs were detected in the samples, but at concentrations below trigger criteria.

A variety of organochlorine pesticides and organophosphorous pesticides, chlorinated herbicides, and PCBs were detected at concentrations at or below detection limits. In most cases, these results were not confirmed by the second GC column analysis. Seventeen organochlorine pesticides results were confirmed at concentrations above detection limits. None of these compounds was detected at concentrations above trigger criteria.

Ten metals, including chromium, vanadium, and zinc, were detected at concentrations above UTLs for background. However, none of the detected concentrations of metals, except beryllium, exceeded trigger criteria. Beryllium was detected at a maximum concentration of 1.87 mg/kg in the sample from 40 to 42 ft at Boring 156-B04; the trigger criteria for beryllium is 0.16 mg/kg.

4.18.3 Risk Assessment Results

A qualitative risk assessment was conducted for SWMU 156 to help determine the need for further investigation on the basis of potential human health or ecological risk. COPCs, exposure pathways, and receptors were identified.

Groundwater flow in this part of the Base is to the southwest, and may reach the Sewage Lagoons and Lakes Holloman and Stinky. Surface water runoff may flow into Sewage Lagoon B. There are no on-site workers, but there are workers in nearby buildings, and a jogging is

Table 4.18-1
Analytical Results for Soil Samples—SWMU 156

Location ID		156-B01		156-B01		156-B01		156-B02	
Sample ID		156-B01-01-01		156-B01-02-01		156-B01-03-01		156-B02-01-01	
Beg. Depth-End Depth (ft)		3-5		9-11		23-25		2-4	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)									
Acetone	[8x10³]	ND	(5.04)	ND	(6.21)	ND	(4.9)	ND	(5)
Ethanol	[NS]	ND	(1.06)	ND	(1.31)	ND	(1.04)	ND	(1.06)
Isopropanol	[NS]	ND	(3.28)	ND	(4.04)	ND	(3.19)	1.6 J	(3.26)
Methyl ethyl ketone	[4.8x10⁴]	ND	(3.58)	ND	(4.41)	ND	(3.48)	ND	(3.56)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10³]	48.5 B	(30.5)	13.6 BXJ	(34.8)	11.3 BJ	(29.9)	159	(61.3)
Carbon disulfide	[8x10⁶]	ND	(4.99)	19.4 X	(5.69)	ND	(4.88)	ND	(4.94)
Methyl ethyl ketone	[4.8x10⁴]	6.77	(4.06)	ND X	(4.63)	ND	(3.97)	3.47 BJ	(4.02)
Methylene chloride	[9.3x10⁴]	ND	(1.71)	ND X	(1.95)	ND	(1.68)	2.42	(1.7)
trans-1,2-Dichloroethene	[1.6x10⁶]	ND	(3.33)	5.53 X	(3.79)	ND	(3.25)	ND	(3.3)
SW8240 - Volatile Organics TICs (μg/kg)									
Isopropyl alcohol	[NS]	NA		NA		NA		100	(NS)
SW8270 - Semivolatile Organics (μg/g)									
2-Methylnaphthalene	[NS]	ND	(0.0304)	ND	(0.0346)	ND	(0.0298)	ND	(0.0301)
Dibenzofuran	[NS]	ND	(0.0232)	ND	(0.0264)	ND	(0.0227)	ND	(0.0229)
Phenanthrene	[NS]	ND	(0.034)	ND	(0.0386)	ND	(0.0333)	ND	(0.0336)
SW8080 - Organochlorine Pesticides and PCBs (μg/kg)									
4,4'-DDD	[2917]	22.9	(0.991)	ND	(22.5)	0.386 J	(0.983)	183	(9.98)
4,4'-DDE	[2059]	22	(0.198)	ND	(4.5)	ND	(0.197)	27.6	(2)
4,4'-DDT	[2059]	44.9	(0.285)	ND	(6.46)	ND	(0.283)	ND	(2.87)
Aldrin	[41.17]	0.667	(0.0991)	ND	(2.25)	ND	(0.0983)	ND	(0.998)
Endosulfan sulfate	[NS]	0.0547 KJ	(0.537)	ND	(12.2)	0.0236 KJ	(0.532)	ND	(5.4)
Endrin	[2.4X10⁴]	0.342 KJ	(0.397)	ND	(15.9)	ND	(0.696)	ND	(7.07)
Endrin aldehyde	[NS]	ND	(0.372)	ND	(10.3)	0.332 KJ	(0.369)	2.95 KJ	(4.57)

Table 4.18-1 (Continued)

Location ID		156-B01		156-B01		156-B01		156-B02	
Sample ID		156-B01-01-01		156-B01-02-01		156-B01-03-01		156-B02-01-01	
Beg. Depth-End Depth (ft)		3-5		9-11		23-25		2-4	
SW8080 - Organochlorine Pesticides and PCBs (μg/kg) (Continued)									
Heptachlor	[156]	0.0054 PJ	(0.12)	ND	(2.72)	ND	(0.119)	ND	(1.21)
Heptachlor epoxide	[76.92]	0.292	(0.136)	ND	(3.09)	0.0712 PJ	(0.135)	0.633 PJ	(1.37)
alpha-Chlordane	[NS]	10.1	(0.661)	ND	(15)	ND	(0.655)	6.69	(6.65)
delta-BHC	[NS]	0.878	(0.0743)	ND	(1.69)	ND	(0.0737)	6.22	(0.748)
gamma-Chlordane	[NS]	15.2	(0.149)	ND	(3.37)	ND	(0.147)	12	(1.5)
SW8140 - Organophosphorus Pesticides (μg/kg)									
Diazinon	[$7.2x10^4$]	1.21 J	(12.1)	ND	(273)	ND	(12)	ND	(243)
Ethoprop	[NS]	4.79 KJ	(8.01)	ND	(10.9)	3.72 KJ	(7.92)	ND	(193)
Fensulfothion	[NS]	3.37 KJ	(12.4)	ND	(15.3)	3.68 KJ	(12.3)	ND	(272)
Methyl azinphos	[NS]	ND	(11.4)	ND	(12.8)	ND	(11.2)	ND	(228)
Methyl parathion	[$2x10^4$]	ND	(10.5)	ND	(160)	ND	(10.4)	ND	(210)
Naled	[NS]	11 KJ	(14.2)	14 KJ	(16)	8.35 KJ	(14)	ND	(284)
Tetrachlorvinphos	[$2.9x10^5$]	0.471 KJ	(5.19)	ND	(245)	ND	(10.8)	ND	(218)
SW8150 - Chlorinated Herbicides (μg/kg)									
2,4,5-T	[$8x10^5$]	ND	(16.3)	ND	(18.1)	ND	(15.9)	3.4 PJ	(15.6)
2,4-DB	[$6.4x10^5$]	14.7 KJ	(25.2)	ND	(28.1)	ND	(24.7)	ND	(24.3)
Dicamba	[$2.4x10^6$]	ND	(2.48)	ND	(2.76)	0.0039 KJ	(2.42)	ND	(2.38)
Dichloroprop	[NS]	10.8 PJ	(44.2)	7.89 PJ	(49.2)	13.8 PJ	(43.2)	36 CJ	(499)
Dinoseb	[$8x10^4$]	8.29 KJ	(24.9)	ND	(27.7)	ND	(24.3)	ND	(23.9)
MCPP	[NS]	7860 KJ	(8600)	8280 KJ	(9570)	7960 KJ	(8400)	ND	(2190)
SW6010 - Metals (mg/kg)									
Antimony	[7.28,32]	< DL*	(1.72)	< DL*	(1.93)	< DL*	(1.52)	< DL*	(1.33)
Barium	[84.36,5600]	41.6	(0.0515)	18.9	(0.0578)	35	(0.0457)	36.5	(0.0399)
Beryllium	[.4,.16]	0.395 B	(0.0523)	0.0589 B	(0.0588)	0.353 B	(0.0465)	0.174	(0.0406)
Cadmium	[80]	0.358 B	(0.255)	< DL	(0.286)	0.7 B	(0.227)	< DL	(0.198)
Chromium	[$6.6,8X10^4$]	9.19	(0.243)	3.88	(0.272)	8.38	(0.216)	5.55	(0.188)

Table 4.18-1 (Continued)

Location ID		156-B01		156-B01		156-B01		156-B02	
Sample ID		156-B01-01-01		156-B01-02-01		156-B01-03-01		156-B02-01-01	
Beg. Depth-End Depth (ft)		3-5		9-11		23-25		2-4	
SW6010 - Metals (mg/kg) (Continued)									
Cobalt	[NS]	2.29	(0.464)	1.17	(0.521)	2.43	(0.412)	1.77 B	(0.36)
Copper	[4.84,2960]	4.19	(0.22)	1.79	(0.246)	3.77	(0.195)	3.51	(0.17)
Vanadium	[15.46,560]	19	(0.382)	12.7	(0.429)	18.2	(0.339)	12.2	(0.296)
Zinc	[20.25,2.4x10^4]	19.6	(0.259)	3.19	(0.29)	18.2	(0.23)	12.9	(0.2)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	1.35 B	(0.635)	< DL	(0.683)	6.26	(0.553)	2.24 S	(0.518)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	5.34 S	(0.147)	0.783 S	(0.0805)	5.64 S	(0.158)	2.97	(0.416)
SW7471 - Mercury (mg/kg)									
Mercury	[-0.0006,24]	< DL	(0.015)	0.0357 B	(0.0171)	0.0494 B	(0.0148)	< DL	(0.015)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	< DL	(0.227)	0.259	(0.244)	< DL	(0.198)	1.93	(0.185)
SW7841 - Thallium (mg/kg)									
Thallium	[11.3]	< DL	(0.186)	< DL	(0.201)	0.462 B	(0.162)	0.0788 SB	(0.0761)
Location ID		156-B02		156-B03		156-B03		156-B03	
Sample ID		156-B02-02-01		156-B03-01-01		156-B03-02-01		156-B03-03-01	
Beg. Depth-End Depth (ft)		40-42		4-6		14-16		40-42	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)									
Acetone	[8x10^3]	ND	(5.07)	ND	(4.95)	ND	(5.24)	ND	(5.12)
Ethanol	[NS]	ND	(1.07)	1.95 KJ	(6.19)	1.86 KJ	(6.55)	ND	(1.08)
Isopropanol	[NS]	ND	(3.3)	ND	(3.22)	ND	(3.41)	ND	(3.33)
Methyl ethyl ketone	[4.8x10^4]	ND	(3.6)	ND	(3.51)	ND	(3.72)	ND	(3.64)

Table 4.18-1 (Continued)

Location ID		156-B02		156-B03		156-B03		156-B03	
Sample ID		156-B02-02-01		156-B03-01-01		156-B03-02-01		156-B03-03-01	
Beg. Depth-End Depth (ft)		40-42		4-6		14-16		40-42	
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10 6]	14.5 BJ	(30.7)	72.3 B	(29.9)	25.9 BJ	(31.2)	9.1 BJ	(31)
Carbon disulfide	[8x10 6]	ND	(5.02)	ND	(4.89)	ND	(5.09)	ND	(5.07)
Methyl ethyl ketone	[4.8x10 7]	ND	(4.08)	ND	(3.98)	4.8	(4.14)	ND	(4.13)
Methylene chloride	[9.3x10 4]	4.58	(1.72)	ND	(1.68)	ND	(1.75)	ND	(1.74)
trans-1,2-Dichloroethene	[1.6x10 6]	ND	(3.35)	ND	(3.26)	ND	(3.4)	ND	(3.38)
SW8240 - Volatile Organics TICs (μg/kg)									
1,2,4,5-Tetramethyl-benzene	[NS]	NA		NA		10	(NS)	NA	
Methyl-naphthalene	[NS]	NA		NA		7	(NS)	NA	
SW8270 - Semivolatile Organics (μg/g)									
2-Methylnaphthalene	[NS]	ND	(0.0305)	ND	(0.03)	0.047	(0.0309)	ND	(0.0303)
Dibenzofuran	[NS]	ND	(0.0232)	ND	(0.0229)	0.0167 J	(0.0235)	ND	(0.0231)
Phenanthrene	[NS]	ND	(0.034)	ND	(0.0335)	0.0303 J	(0.0345)	ND	(0.0339)
SW8080 - Organochlorine Pesticides and PCBs (μg/kg)									
4,4'-DDD	[2917]	0.607 J	(1)	ND	(1.98)	ND	(20.5)	0.78 KJ	(2.02)
4,4'-DDE	[2059]	ND	(0.201)	ND	(0.396)	ND	(3.07)	ND	(0.403)
4,4'-DDT	[2059]	0.128 KJ	(0.263)	ND	(0.57)	ND	(5.89)	0.201 KJ	(0.529)
Aldrin	[41.17]	ND	(0.1)	ND	(0.198)	ND	(2.05)	ND	(0.202)
Endosulfan sulfate	[NS]	0.244 KJ	(0.543)	0.0811 J	(1.07)	ND	(11.1)	0.383 KJ	(1.09)
Endrin	[2.4x10 4]	ND	(0.71)	ND	(1.4)	ND	(14.5)	ND	(1.43)
Endrin aldehyde	[NS]	ND	(0.459)	ND	(0.908)	ND	(9.39)	ND	(0.924)
Heptachlor	[156]	ND	(0.121)	ND	(0.239)	ND	(2.48)	ND	(0.244)
Heptachlor epoxide	[76.92]	0.0121 KJ	(0.1)	ND	(0.273)	ND	(2.82)	ND	(0.277)

Table 4.18-1 (Continued)

Location ID		156-B02		156-B03		156-B03		156-B03	
Sample ID		156-B02-02-01		156-B03-01-01		156-B03-02-01		156-B03-03-01	
Beg. Depth-End Depth (ft)		40-42		4-6		14-16		40-42	
SW8080 - Organochlorine Pesticides and PCBs (μg/kg) (Continued)									
alpha-Chlordane	[NS]	ND	(0.668)	ND	(1.32)	ND	(13.7)	ND	(1.34)
delta-BHC	[NS]	ND	(0.0752)	ND	(0.149)	ND	(1.54)	ND	(0.151)
gamma-Chlordane	[NS]	ND	(0.15)	ND	(0.297)	ND	(3.07)	ND	(0.303)
SW8140 - Organophosphorus Pesticides (μg/kg)									
Diazinon	[7.2×10^4]	ND	(12.2)	ND	(121)	ND	(248)	0.839 KJ	(24.8)
Ethoprop	[NS]	4.19 KJ	(9.74)	26.1 KJ	(96)	18.7 KJ	(197)	8.48 KJ	(9.72)
Fensulfothion	[NS]	3.75 KJ	(13.7)	ND	(135)	ND	(278)	5.96 KJ	(13.7)
Methyl azinphos	[NS]	ND	(11.5)	ND	(113)	ND	(233)	ND	(11.5)
Methyl parathion	[2×10^4]	ND	(10.6)	ND	(104)	37.7 KJ	(215)	ND	(10.6)
Naled	[NS]	10.7 KJ	(10.7)	61 KJ	(106)	27.8 KJ	(218)	ND	(14.3)
Tetrachlorvinphos	[2.9×10^5]	ND	(11)	ND	(108)	ND	(223)	1.07 KFJ	(11)
SW8150 - Chlorinated Herbicides (μg/kg)									
2,4,5-T	[8×10^5]	3.44 PJ	(15.9)	5.88 PJ	(15.9)	13.3 PJ	(16.5)	6.79 PJ	(16)
2,4-DB	[6.4×10^5]	ND	(24.7)	21.8 KJ	(22.1)	ND	(25.6)	ND	(24.9)
Dicamba	[2.4×10^6]	ND	(2.42)	ND	(2.42)	ND	(2.51)	ND	(2.44)
Dichloroprop	[NS]	9.08 J	(508)	16.9 PJ	(43.2)	99.2 J	(526)	62.5 J	(512)
Dinoseb	[8×10^4]	ND	(24.4)	ND	(24.3)	ND	(25.2)	ND	(24.6)
MCPP	[NS]	7650 KJ	(8420)	ND	(2230)	ND	(2310)	ND	(2250)
SW6010 - Metals (mg/kg)									
Antimony	[7.28,32]	< DL*	(1.65)	< DL*	(1.67)	< DL*	(1.9)	< DL*	(1.3)
Barium	[84.36,5600]	61.1	(0.0495)	61.9	(0.0502)	52.6	(0.0571)	30.4	(0.039)
Beryllium	[.4,.16]	0.635	(0.0503)	0.472	(0.0511)	0.41	(0.0581)	0.223	(0.0396)
Cadmium	[80]	0.273	(0.245)	0.265 B	(0.249)	< DL	(0.283)	< DL	(0.193)
Chromium	[$6.6,8 \times 10^4$]	10.3	(0.233)	11.8	(0.237)	12.4	(0.269)	7	(0.184)

Table 4.18-1 (Continued)

Location ID		156-B01		156-B01		156-B01		156-B02	
Sample ID		156-B01-01-01		156-B01-02-01		156-B01-03-01		156-B02-01-01	
Beg. Depth-End Depth (ft)		3-5		9-11		23-25		2-4	
SW6010 - Metals (mg/kg) (Continued)									
Cobalt	[NS]	2.29	(0.464)	1.17	(0.521)	2.43	(0.412)	1.77 B	(0.36)
Copper	[4.84,2960]	4.19	(0.22)	1.79	(0.246)	3.77	(0.195)	3.51	(0.17)
Vanadium	[15.46,560]	19	(0.382)	12.7	(0.429)	18.2	(0.339)	12.2	(0.296)
Zinc	[20.25,2.4x10^4]	19.6	(0.259)	3.19	(0.29)	18.2	(0.23)	12.9	(0.2)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	1.35 B	(0.635)	< DL	(0.683)	6.26	(0.553)	2.24 S	(0.518)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	5.34 S	(0.147)	0.783 S	(0.0805)	5.64 S	(0.158)	2.97	(0.416)
SW7471 - Mercury (mg/kg)									
Mercury	[-0.0006,24]	< DL	(0.015)	0.0357 B	(0.0171)	0.0494 B	(0.0148)	< DL	(0.015)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	< DL	(0.227)	0.259	(0.244)	< DL	(0.198)	1.93	(0.185)
SW7841 - Thallium (mg/kg)									
Thallium	[11.3]	< DL	(0.186)	< DL	(0.201)	0.462 B	(0.162)	0.0788 SB	(0.0761)
Location ID		156-B02		156-B03		156-B03		156-B03	
Sample ID		156-B02-02-01		156-B03-01-01		156-B03-02-01		156-B03-03-01	
Beg. Depth-End Depth (ft)		40-42		4-6		14-16		40-42	
SW8015 - Nonhalogenated Volatile Organics (mg/kg)									
Acetone	[8x10^3]	ND	(5.07)	ND	(4.95)	ND	(5.24)	ND	(5.12)
Ethanol	[NS]	ND	(1.07)	1.95 KJ	(6.19)	1.86 KJ	(6.55)	ND	(1.08)
Isopropanol	[NS]	ND	(3.3)	ND	(3.22)	ND	(3.41)	ND	(3.33)
Methyl ethyl ketone	[4.8x10^4]	ND	(3.6)	ND	(3.51)	ND	(3.72)	ND	(3.64)

Table 4.18-1 (Continued)

Location ID		156-B04		156-B04		156-B04		
Sample ID		156-B04-01-01		156-B04-02-01		156-B04-03-01		
Beg. Depth-End Depth (ft)		4-6		30-32		40-42		
SW8240 - Volatile Organics (μg/kg)								
Acetone	[8x10⁶]	34.7 B	(31.4)	47.3 B	(31.1)	14.4 BJ	(36.8)	
Carbon disulfide	[8x10⁶]	ND	(5.13)	ND	(5.09)	ND	(6.01)	
Methyl ethyl ketone	[4.8x10⁷]	ND	(4.17)	ND	(4.14)	ND	(4.89)	
Methylene chloride	[9.3x10⁴]	ND	(1.76)	ND	(1.75)	ND	(2.06)	
trans-1,2-Dichloroethene	[1.6x10⁶]	ND	(3.42)	ND	(3.39)	ND	(4.01)	
SW8270 - Semivolatile Organics (μg/g)								
2-Methylnaphthalene	[NS]	ND	(0.0308)	ND	(0.0306)	ND	(0.0365)	
Dibenzofuran	[NS]	ND	(0.0235)	ND	(0.0234)	ND	(0.0278)	
Phenanthrene	[NS]	ND	(0.0344)	ND	(0.0342)	ND	(0.0408)	
SW8080 - Organochlorine Pesticides and PCBs (μg/kg)								
4,4'-DDD	[2917]	6.39	(2.04)	11.6	(2.02)	1.16 J	(2.4)	
4,4'-DDE	[2059]	2.57	(0.408)	4.06	(0.405)	0.412 J	(0.48)	
4,4'-DDT	[2059]	0.21 KJ	(0.536)	ND	(0.582)	ND	(0.691)	
Aldrin	[41.17]	ND	(0.204)	ND	(0.202)	ND	(0.24)	
Endosulfan sulfate	[NS]	0.25 KJ	(1.11)	0.186 KJ	(1.1)	0.288 KJ	(1.3)	
Endrin	[2.4x10⁴]	ND	(1.45)	ND	(1.43)	ND	(1.7)	
Endrin aldehyde	[NS]	0.436 KJ	(0.935)	ND	(0.927)	ND	(1.1)	
Heptachlor	[156]	ND	(0.247)	ND	(0.245)	ND	(0.29)	
Heptachlor epoxide	[76.92]	ND	(0.281)	0.0476 PJ	(0.278)	0.241 PJ	(0.33)	
alpha-Chlordane	[NS]	ND	(1.36)	ND	(1.35)	ND	(1.6)	
delta-BHC	[NS]	ND	(0.153)	ND	(0.152)	ND	(0.18)	
gamma-Chlordane	[NS]	0.0395 J	(0.306)	0.164 J	(0.304)	ND	(0.36)	

Table 4.18-1 (Continued)

Location ID		156-B04		156-B04		156-B04		
Sample ID		156-B04-01-01		156-B04-02-01		156-B04-03-01		
Beg. Depth-End Depth (ft)		4-6		30-32		40-42		
SW8140 - Organophosphorus Pesticides (μg/kg)								
Diazinon	[7.2x10⁴]	ND	(123)	0.737 KJ	(25)	2.48 KJ	(29.4)	
Ethoprop	[NS]	26.6 KJ	(98.2)	9.29 KJ	(9.79)	ND	(9.55)	
Fensulfothion	[NS]	26.3 KJ	(138)	5.06 KJ	(13.8)	7.74 KJ	(16.2)	
Methyl azinphos	[NS]	ND	(116)	ND	(11.5)	4.03 KJ	(33.7)	
Methyl parathion	[2x10⁴]	ND	(107)	ND	(10.6)	4.95 KJ	(12.5)	
Naled	[NS]	61.2 KJ	(108)	ND	(14.4)	ND	(16.9)	
Tetrachlorvinphos	[2.9x10⁵]	ND	(111)	1.53 BJ	(11)	1.73 BJ	(13)	
SW8150 - Chlorinated Herbicides (μg/kg)								
2,4,5-T	[8x10⁵]	7.23 PJ	(16.5)	7.01 PJ	(16.2)	7.15 PJ	(19.3)	
2,4-DB	[6.4x10⁵]	ND	(25.6)	ND	(25.1)	25.8 KJ	(26.9)	
Dicamba	[2.4x10⁶]	ND	(2.51)	ND	(2.47)	ND	(2.93)	
Dichloroprop	[NS]	20.6 PJ	(44.8)	39.3 J	(516)	18.8 PJ	(52.4)	
Dinoseb	[8x10⁴]	ND	(25.2)	ND	(24.8)	ND	(29.5)	
MCPP	[NS]	ND	(2310)	ND	(2270)	ND	(2700)	
SW6010 - Metals (mg/kg)								
Antimony	[7.28,32]	< DL*	(1.75)	< DL*	(1.75)	2.96* B	(1.93)	
Barium	[84.36,5600]	68.3	(0.0524)	63.7	(0.0524)	86.7	(0.058)	
Beryllium	[.4,.16]	0.414	(0.0533)	0.552	(0.0533)	1.87	(0.059)	
Cadmium	[80]	0.302 B	(0.26)	< DL	(0.259)	0.393 B	(0.288)	
Chromium	[6.6,8x10⁴]	11.8	(0.247)	17.6	(0.247)	17.5	(0.274)	
Cobalt	[NS]	2.75	(0.472)	3.25	(0.472)	4.04	(0.523)	
Copper	[4.84,2960]	6.3	(0.223)	6.79	(0.223)	8.07	(0.248)	
Vanadium	[15.46,560]	23.5	(0.389)	21.3	(0.389)	22.6	(0.431)	
Zinc	[20.25,2.4x10⁴]	27	(0.263)	33.2	(0.263)	49.5	(0.292)	

Table 4.18-1 (Continued)

Location ID		156-B04		156-B04		156-B04		
Sample ID		156-B04-01-01		156-B04-02-01		156-B04-03-01		
Beg. Depth-End Depth (ft)		4-6		30-32		40-42		
SW7060 - Arsenic (mg/kg)								
Arsenic	[6.88,24]	3.67	(0.763)	2.73	(0.617)	1.73	(0.95)	
SW7421 - Lead (mg/kg)								
Lead	[12.3,500]	7.28 S	(0.387)	14.8 S	(0.313)	11.6 S	(0.481)	
SW7471 - Mercury (mg/kg)								
Mercury	[-0.0006,24]	< DL	(0.0154)	< DL	(0.0152)	< DL	(0.0182)	
SW7740 - Selenium (mg/kg)								
Selenium	[10.53,400]	1.82	(0.273)	1.34	(0.221)	< DL	(-0.0108)	
SW7841 - Thallium (mg/kg)								
Thallium	[11.3]	0.238 SB	(0.0794)	0.245 SB	(0.0642)	0.396 SB	(0.0989)	

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
* = Value considered suspect; refer to the Informal Technical Information Report (ITIR).
B = Analyte detected in associated blank analyses.
DL = Detection limit.
F = Interference or coelution suspected.
J = Estimated concentration, analyte detected at concentration below the detection limit.
K = Not confirmed, peak did not meet method identification criteria. Analyte not detected on other GC column.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
P = Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.
S = Analyte concentration obtained using the MSA.
X = Recovery for the internal standard used to quantitate this concentration was low.

Table 4.18-2
Analytical Results for the Sludge Sample—SWMU 156

Location ID	156-B05	
Sample ID	156-B05-01-01	
SW8240 - Volatile Organics (μg/kg)		
Acetone	1010	(28)
Methylene chloride	5.8 B	(1.4)
SW8270 - Semivolatile Organics (μg/g)		
Benzo(a)anthracene	0.0557	(0.0277)
Benzo(a)pyrene	0.0447	(0.0349)
Benzo(b)fluoranthene	0.0723 F	(0.0353)
Benzo(g,h,i)perylene	0.0212 J	(0.034)
Benzo(k)fluoranthene	0.0723 F	(0.0444)
Chrysene	0.0494	(0.0366)
bis(2-Ethylhexyl)phthalate	1.07	(0.0748)
Fluoranthene	0.0919	(0.0315)
Indeno(1,2,3-cd)pyrene	0.0205 J	(0.0267)
Phenanthrene	0.0377 J	(0.0409)
Pyrene	0.0673	(0.0224)
p-Chloroaniline	0.268	(0.0446)
SW8270 - Semivolatile Organics TICs (μg/g)		
Molecular sulfur	1	(NS)
SW8080 - Organochlorine Pesticides and PCBs (ug/kg)		
4,4'-DDD	35.5	(24.1)
4,4'-DDT	9.63	(6.94)
Dieldrin	10.6 P	(4.83)
Endosulfan sulfate	1.71 KJ	(13.1)
Endrin	13.9 KJ	(17.1)
Endrin aldehyde	3.82 KJ	(11.1)
Heptachlor epoxide	21 P	(3.32)
alpha-Chlordane	14.3 P	(3.92)
gamma-Chlordane	22.9 P	(2.71)
SW8140 - Organophosphorus Pesticides (μg/kg)		
Ethoprop	88.3 KJ	(115)
Fensulfothion	36.3 KJ	(162)
SW8150 - Chlorinated Herbicides (μg/kg)		
2,4-D	34.5 KJ	(46.6)
Dichloroprop	85.1 P	(53.6)
Dinoseb	.84 KJ	(31.8)

Table 4.18-2 (Continued)

Location ID	156-B05	
Sample ID	156-B05-01-01	
SW6010 - Metals (mg/kg)		
Barium	43.2	(0.0575)
Beryllium	0.0835	(0.0585)
Cadmium	0.476 B	(0.285)
Chromium	10.2 B	(0.271)
Cobalt	0.842	(0.519)
Copper	16.6 B	(0.245)
Silver	17.7	(0.182)
Vanadium	13.4 B	(0.427)
Zinc	26.6 B	(0.289)
SW7060 - Arsenic (mg/kg)		
Arsenic	0.744	(0.289)
SW7421 - Lead (mg/kg)		
Lead	10.8 S	(0.341)
SW7471 - Mercury (mg/kg)		
Mercury	0.303 B	(0.0182)
SW7740 - Selenium (mg/kg)		
Selenium	2.16 S	(0.219)
SW9012 - Total Cyanide (mg/kg)		
Cyanide	0.914 B	(0.35)
SW9030 - Total Sulfide (mg/kg)		
Sulfide	90.4	(37.8)

Note: Analyses were performed to characterize the contents of SWMU 156.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
K = Not confirmed, peak did not meet method identification criteria. Analyte not detected on other GC column.
ND = Not detected.
NS = Not specified.
P = Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.
S = Analyte concentration obtained using the MSA.

path is located approximately 100 ft north of the SWMU. The SWMU is covered with fill dirt and partially vegetated. Off-site workers and joggers could be exposed through inhalation of volatiles and fugitive dust. Off-site workers could also be exposed through dermal contact with soil. The Main Base area is approximately 1 mile away, so Base residents are not expected to be impacted by the SWMU.

COPCs were selected using the methodology described in Attachment 1 of Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in surface and subsurface soil, with the exception of beryllium, are below EPA Region III screening criteria; therefore, beryllium is the only COPC for the SWMU. However, even though beryllium was identified as a COPC, it is naturally present in Base background soils at concentrations only slightly less than the concentrations detected at this SWMU.

If surface water reaches the Lagoons and Lakes, wildlife may be exposed through inhalation of volatiles from water, ingestion of contaminated surface water at Lakes Holloman and Stinky, incidental ingestion of soil from the lake edges, and ingestion of potentially contaminated plants. The SWMU offers limited forage for wildlife, so direct contact with constituents is possible, but is not expected to be significant.

In conclusion, two potential human pathways (i.e., inhalation of volatiles and fugitive dust, and dermal contact with soil), and two potential receptors (i.e., off-site workers and joggers) have been identified. Although a variety of constituents were detected, the risk-based screen indicates that only beryllium concentrations are above the EPA Region III criteria for ingestion. Risk from the ingestion pathway is generally greater than risk from inhalation of volatiles and fugitive dust, therefore, this pathway is typically used to screen constituent concentrations.

4.18.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the analytical results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

The presence of a variety of organochlorine and organophosphorus pesticides, chlorinated herbicides, volatile and semivolatile organics, and metals may indicate that a potential release from the SWMU has occurred. None of the constituents, however, with the exception of beryllium, exceeded trigger criteria. Beryllium is the only COPC for the SWMU, and elevated levels of beryllium alone are highly unlikely to pose an unacceptable risk to human health or the environment.

In support of these findings, EPA issued a policy directive that provides the opportunity for potentially contaminated media to be excluded from the listed waste definition. This policy, known as the contained in policy and outlined in a letter in Appendix A of the *Waste Management Plan* (Radian, 1993), states that if listed waste constituent concentration are below relevant HBLs, the contaminated media (soil) will not be considered to contain hazardous wastes. This guidance in support of the analytical results and the findings of the qualitative risk assessment, indicate that although a variety of constituents were detected at SWMU 156. All detected constituents presented in Table 2-2 of the *Waste Management Plan* are below HBLs and the soil associated with SWMU 156 may be considered nonlisted waste.

4.18.5 Recommendations

NFA is recommended for this SWMU, a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA. In the future, if further action is required, SWMU 156 can be addressed in conjunction with the ongoing Sewage Lagoons investigation and remediation program.

4.19 SWMU 164—Building 1080 Pond

SWMU 164 is on Table 2 of Holloman AFB's HSWA permit. The SWMU was activated in 1956 and is still in use. The pond itself has not been previously investigated, but runoff from the surrounding flightline has been found to contain elevated levels of metals, and the north end of the pond was partially excavated following a fuel spill in November 1992. For this investigation soil samples were collected from various depths in eight locations around the SWMU. Although a fuel spill is known to have occurred in the north part of the SWMU in November 1992, analytical results indicate that detected constituents in the soil and subsurface soil at the SWMU are below risk-based trigger criteria and below the New Mexico TRPH cleanup standard of 1000 mg/kg for Holloman AFB.

The quantitative risk assessment indicates that SWMU 164 does not pose an unacceptable risk to human health or the environment.

NFA is recommended for SWMU 164; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

4.19.1 SWMU Description

Physical Features—SWMU 164 is located approximately 300 ft south-southeast of Building 1080.

Unit Description—The SWMU consists of a low-lying area covering approximately 2 acres. Runoff from the asphalt-paved area near building 1080 and from the flight line collects in SWMU 164 during periods of heavy rainfall and eventually evaporates or infiltrates into the underlying soil.

Waste Description—The SWMU collects runoff from the surrounding flightline, which was previously found to contain metals. Excavation of contaminated soil following a recent fuel spill extended into the pond, and there

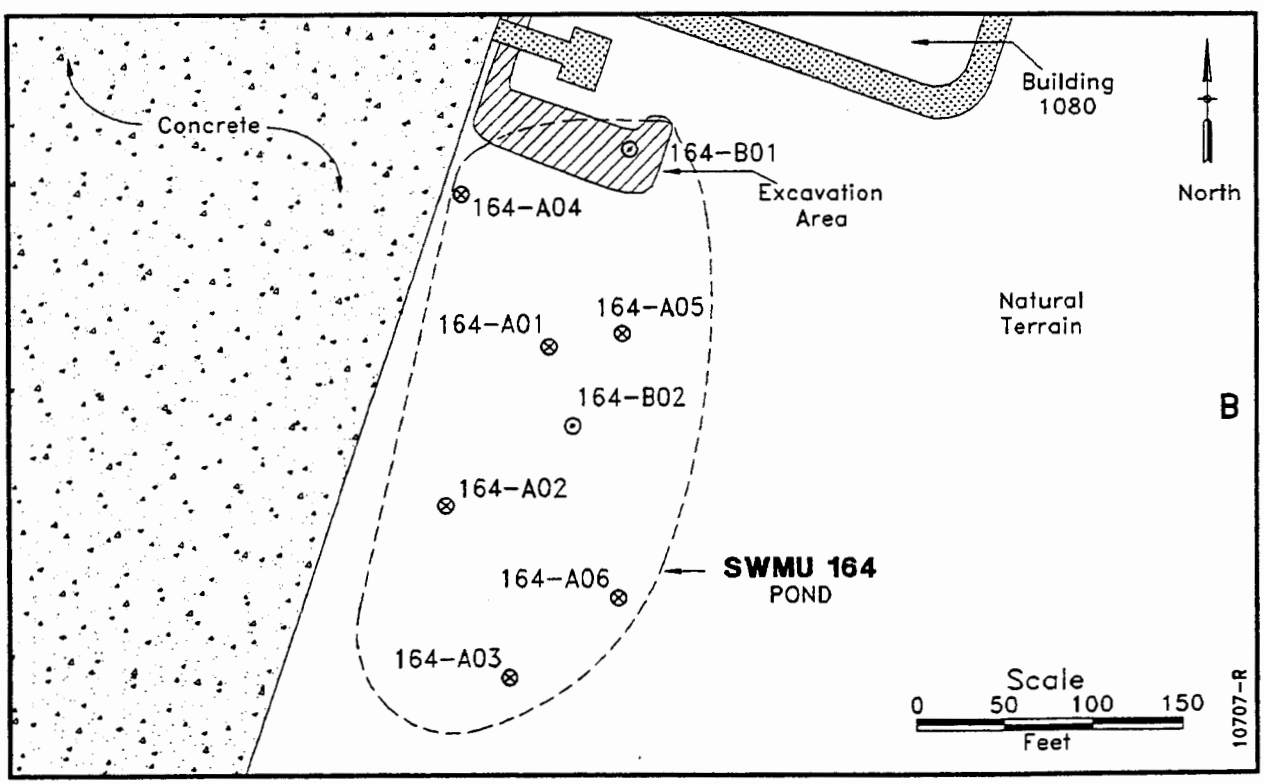


Figure 4.19-1. SWMU 164 Features and Sampling Locations

have been reports of standing fuel product immediately north of the SWMU.

Release History—Contaminated soil was excavated following a nearby JP-4 fuel spill of approximately 1000 gal. in November 1992. Part of the excavation extended into the pond, shown in Figure 4.19-1.

4.19.2 Site Investigation and Results

Soil borings were drilled in two locations and hand auger samples were collected in six locations around the SWMU, as shown in Figure 4.19-1. In the borings, split spoon samples were collected every 2 ft from the surface to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the surface interval, the interval intersecting groundwater (12-14 ft), and the middle interval (4-6 ft) in each boring. Hand auger samples were collected from 0- to 1- ft intervals in three locations, and from 0- to 2- ft intervals in three other locations. A soil sample for geotechnical analysis was also collected. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMU 164 were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of silt and silty-sand. Clay lenses, ranging in thickness from 1 to 2 ft, are interbedded with the silt and silty-sand in the borings. Groundwater occurs in silty-sand approximately 13 ft bgl. Groundwater in this part of the Base generally flows to the south-southwest.

Analytical Results

Soil boring samples were analyzed for TRPH, VOCs, and metals. The 0- to 1- ft samples (164-A04, -A05, and -A06) were analyzed for VOCs and metals; and the 0- to 2- ft samples (164-A01, -A02, and -A03) were analyzed for metals only. Summary analytical results are presented in Table 4.19-1.

A couple of VOCs were detected at concentrations below detection limits. Acetone was detected in several of the samples, but was also detected in associated method blanks, so its presence in the samples is uncertain. Ethylbenzene, toluene, and xylenes were detected at ppm levels in two of the surface samples. However, no VOCs were detected at concentrations above trigger criteria.

Chromium and lead were detected above UTLs for background in one or more of the samples. However, no metals were detected at concentrations exceeding trigger criteria.

Arsenic, barium, cadmium, and chromium were the only constituents identified as COPCs through the risk-based screen. TRPH were not detected above trigger criteria in any of the samples.

4.19.3 Risk Assessment Results

A quantitative risk assessment was conducted for SWMU 164 using data collected during this investigation to assess the impacts of site COPCs on human health and the environment. COPCs, exposure pathways, and receptors were identified as described in Appendix C. The risk assessment methodology followed is presented in the *RA Report* (Radian, 1992b). COPCs selected for the site are presented in Table C.1-3. Risked-based screening results are presented in Attachment 5 of Appendix C.

Table 4.19-1
Analytical Results for Soil Samples—SWMU 164

Location ID		164-A01		164-A02		164-A03		164-A04	
Sample ID		164-A01-01-01		164-A02-01-01		164-A03-01-01		164-A04-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
SW8240 - Volatile Organics (µg/kg)									
1,1-Dichloroethene	[1.16x10^4]	NA		NA		NA		630 J	(844)
Acetone	[8x10^6]	NA		NA		NA		ND	(1350)
Benzene	[2.4x10^4]	NA		NA		NA		257 J	(1160)
Ethyl benzene	[8x10^6]	NA		NA		NA		54200	(773)
Methylene chloride	[9.3x10^4]	NA		NA		NA		ND	(1300)
Toluene	[1.6x10^7]	NA		NA		NA		40600	(485)
Xylene (total)	[1.6x10^8]	NA		NA		NA		106000	-1510
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	28.4	(0.0523)	36.8	(0.0542)	29.5	(0.0549)	28.9	(0.0509)
Chromium	[6.6,8x10^4]	4.66	(0.247)	5.99	(0.255)	5.29 B	(0.259)	6.16	(0.24)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	1.96	(0.681)	1.17	(0.762)	< DL	(0.716)	2.35	(0.768)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	1.86 B	(0.316)	2.02 B	(0.299)	1.71 B	(0.297)	13.7	(0.306)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.51	(0.243)	1.91	(0.273)	2.58	(0.256)	2.44	(0.274)
Location ID		164-A05		164-A06		164-B01		164-B01	
Sample ID		164-A05-01-01		164-A06-01-01		164-B01-01-01		164-B01-02-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		4-6	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	NA		NA		<DL	-31.6	<DL	-31.3
SW8240 - Volatile Organics (µg/kg)									
1,1-Dichloroethene	[1.16x10^4]	ND	(2.87)	619 J	(800)	ND	(2.73)	ND	(2.69)
Acetone	[8x10^6]	ND	(1.68)	ND	(1280)	26.6	(1.6)	15.4 B	(1.58)
Benzene	[2.4x10^4]	ND	(1.93)	276 J	(1100)	ND	(1.83)	ND	(1.81)
Ethyl benzene	[8x10^6]	3.44	(1.85)	54700	(732)	ND	(1.76)	ND	(1.74)
Methylene chloride	[9.3x10^4]	ND	(2.93)	ND	(1230)	ND	(2.78)	ND	(2.74)
Toluene	[1.6x10^7]	4.25	(1.91)	41400	(460)	ND	(1.81)	ND	(1.79)
Xylene (total)	[1.6x10^8]	5.95	(4.08)	105000	(1430)	ND	(3.87)	ND	(3.82)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	33.2	(0.0609)	20.6	(0.0496)	47.6	(0.0546)	63.6	(0.0511)
Chromium	[6.6,8x10^4]	6.33	(0.287)	3.73	(0.234)	5.29	(0.258)	7.68	(0.241)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	3.17	(0.793)	1.93	(0.587)	< DL	(0.628)	0.664	(0.656)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	11.9	(0.314)	3.18	(0.299)	2.36 B	(0.3)	5.16	(0.297)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.53	(0.283)	2.06	(0.21)	2.39	(0.225)	2.36	(0.234)

Table 4.19-1 (Continued)

Location ID		164-B01		164-B02		164-B02		164-B02	
Sample ID		164-B01-03-01		164-B02-01-01		164-B02-02-01		164-B02-03-01	
Beg. Depth-End Depth (ft)		12-14		0-2		4-6		12-14	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(29.2)	< DL	(31.7)	< DL	(32.2)	< DL	(30.7)
SW8240 - Volatile Organics (µg/kg)									
1,1-Dichloroethene	[$1.16x10^4$]	ND	(2.54)	ND	(2.72)	ND	(2.78)	ND	(2.66)
Acetone	[$8x10^6$]	6.79 B	(1.49)	ND	(1.59)	6.04 B	(1.63)	10.4 B	(1.56)
Benzene	[$2.4x10^4$]	ND	(1.71)	ND	(1.83)	ND	(1.87)	ND	(1.79)
Ethyl benzene	[$8x10^6$]	ND	(1.64)	ND	(1.76)	ND	(1.79)	ND	(1.71)
Methylene chloride	[$9.3x10^4$]	ND	(2.59)	ND	(2.77)	1.32 J	(2.83)	1.07 J	(2.71)
Toluene	[$1.6x10^7$]	ND	(1.69)	ND	(1.81)	1.22 J	(1.85)	ND	(1.76)
Xylene (total)	[$1.6x10^8$]	ND	(3.61)	ND	(3.87)	ND	(3.95)	ND	(3.77)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	55.6	(0.0513)	36	(0.0597)	63.4	(0.0544)	64.2	(0.0483)
Chromium	[$6.6,8x10^4$]	7.8	(0.242)	6.99 B	(0.281)	10.1	(0.256)	13.7	(0.228)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	< DL	(0.695)	1.05	(0.7)	1.02	(0.648)	0.916	(0.613)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	3.46	(0.286)	14.1	(0.312)	3.6	(0.317)	6.54	(0.297)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	0.58	(0.251)	2.46	(0.25)	1.16	(0.231)	0.497	(0.219)

Note: The UTLs and Subpart S action levels are presented, respectively, in brackets [ ]; [ ] = Trigger criterion for organics, [,] = UTL, RCRA Subpart S action level.

( ) = Detection limit .
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.

Workers near the site could be exposed through inhalation of volatiles and through inhalation of contaminants entrained in fugitive dust generated at the site. Potential future construction workers could be exposed through inhalation of volatiles, through inhalation of contaminants entrained in fugitive dust generated at the site and by dermal contact and incidental ingestion of surface soil contaminants or subsurface soil contaminants. These were the exposure pathways quantified in the risk assessment. On-base residents, approximately 1.5 miles from the site, are too far away for significant impacts from contaminants at the site.

Risk values for all scenarios evaluated were below the range considered unacceptable. For the on site worker scenario, present and future average and reasonable maximum carcinogenic risks are 4E-07 and 8E-07 respectively. Present non-carcinogenic hazard could not be calculated because none of the COPCs had non-carcinbogenic toxicity values. Future hazard indices for the average and reasonable maximum exposure scenarios are 0.5 and 0.8. Potential future construction worker carcinogenic risks are 1E-08 and 3E-08 for average and reasonable maximum exposures, respectively. The non-carcinogenic hazard indices are 0.1 and 0.2. Tables in Attachment 3 of Appendix C present the risks by chemical, exposure pathway, and scenario total for each scenario.

An ecological quotient (EQ) of 0.06 for black-tailed jackrabbits at the site indicates low probability of any adverse environmental effects from the COPCs at the site. A quantitative environmental evaluation was conducted on the assumption that exposure to site contaminants would be possible through plant uptake and subsequent ingestion by animals, as well as by soil ingestion. Methodology for the EQ method is presented in Appendix K of the *RA Report* (Radian, 1992b); calculated plant and jack-rabbit uptake and EQs are presented in Tables C.2-3 and C.2-4 of Appendix C.

4.19.4 Conclusions

Conclusions are based on a comparison of the analytical results with risk-based trigger criteria, the results of the quantitative risk assessment (acceptable or unacceptable risk), and a comparison of the results with the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

There is some evidence of a limited release from the SWMU. The elevated levels of ethylbenzene, toluene, and xylenes in the surface soil at 164-A06 are probably the result of the November 1992 fuel spill. All of the detected constituents at this location and in other sampling locations at the SWMU, however, are below risk-based trigger criteria. The quantitative risk assessment indicates that the SWMU does not pose an unacceptable risk to human health or the environment.

4.19.5 Recommendations

No further action is recommended for SWMU 164; a Class 3 permit modification request will be completed by Holloman AFB to achieve no further action.

[This page intentionally left blank.]

4.20 SWMU 183—Air Base Sewer System

SWMU 183 is on Table 2 of Holloman AFB's HSWA permit. The sewer system was activated in 1942 and is still in operation today. No investigations, other than routine maintenance, have occurred on SWMU 183. This investigation focuses on the section of the sewer line that receives and transports wastewater from non-residential areas.

4.20.1 SWMU Description

Physical Features—Sewer pipelines collect wastewater from an approximate 12 square mile area throughout the Base.

Unit Description—The section of the sewer receiving nonresidential wastewater is approximately 117,996 ft long. Pipes of various sizes constructed of clay, concrete, and PVC transport the wastewater to the sewage lagoons for treatment and did receive some potentially contaminated wastewater in the past.

Waste Description—The sewer system receives domestic wastewater, stormwater, and, in the past, potentially received wastewater containing de minimis quantities of dissolved hydrocarbons, solvents, industrial cleaners, paint stripper, methanol, acetone, and formaldehyde. Based on the waste status determination provided by NMED and EPA, Region VI for the wastes contained in the treatment lagoons, the wastes managed in the Base sewer system are not listed hazardous waste.

Release History—Not known.

4.20.2 Site Investigation and Results

The site investigation consisted of a three-step process. The first step was to physically inspect each of the manholes in the system. The second step consisted of a smoke test of the entire system was performed in an effort to help identify problems areas in the line. If smoke was seen rising from the ground between the manholes in any section of the line, that section was inspected using a color video camera (i.e., the third step). During the investigation, lines that are currently not in service were discovered. These lines were investigated in the same manner as in-service lines.

Step One—Of the 358 manholes in the system, 25 were not located, 23 were either buried or surcharged, and 2 could not be opened. The remaining 308 manholes were physically inspected either by entering the manhole or by using a system of mirrors to view not only the manhole but also the influent and effluent lines. Information such as material of construction, number of lines entering and leaving the manhole, and the physical condition of the manhole and the associated lines were recorded. This information helped to determine if the manhole had any obvious visual defects and if the lines could be smoke tested.

Step Two—The smoke test was performed by forcing air into the sewer line using a 4-HP blower positioned on top of the manhole. A smoke bomb was placed inside the manhole and the forced air entrained the smoke into the line. Where entrained smoke came upon breaks or locations of discontinuity in the line, the smoke would exit the line and seep into the surrounding soils and eventually rise through the soil to the surface. Of the 117,996 ft of sewer lines in the system, 87,996 ft were smoke tested. The remaining 30,000 ft of the lines could not be smoke tested because they were discovered, during the manhole inspection, to be blocked, surcharged, or collapsed. The lines that were smoke tested were categorized using the decision flowchart shown in Figure 4.20-1. A description of each category is presented below.

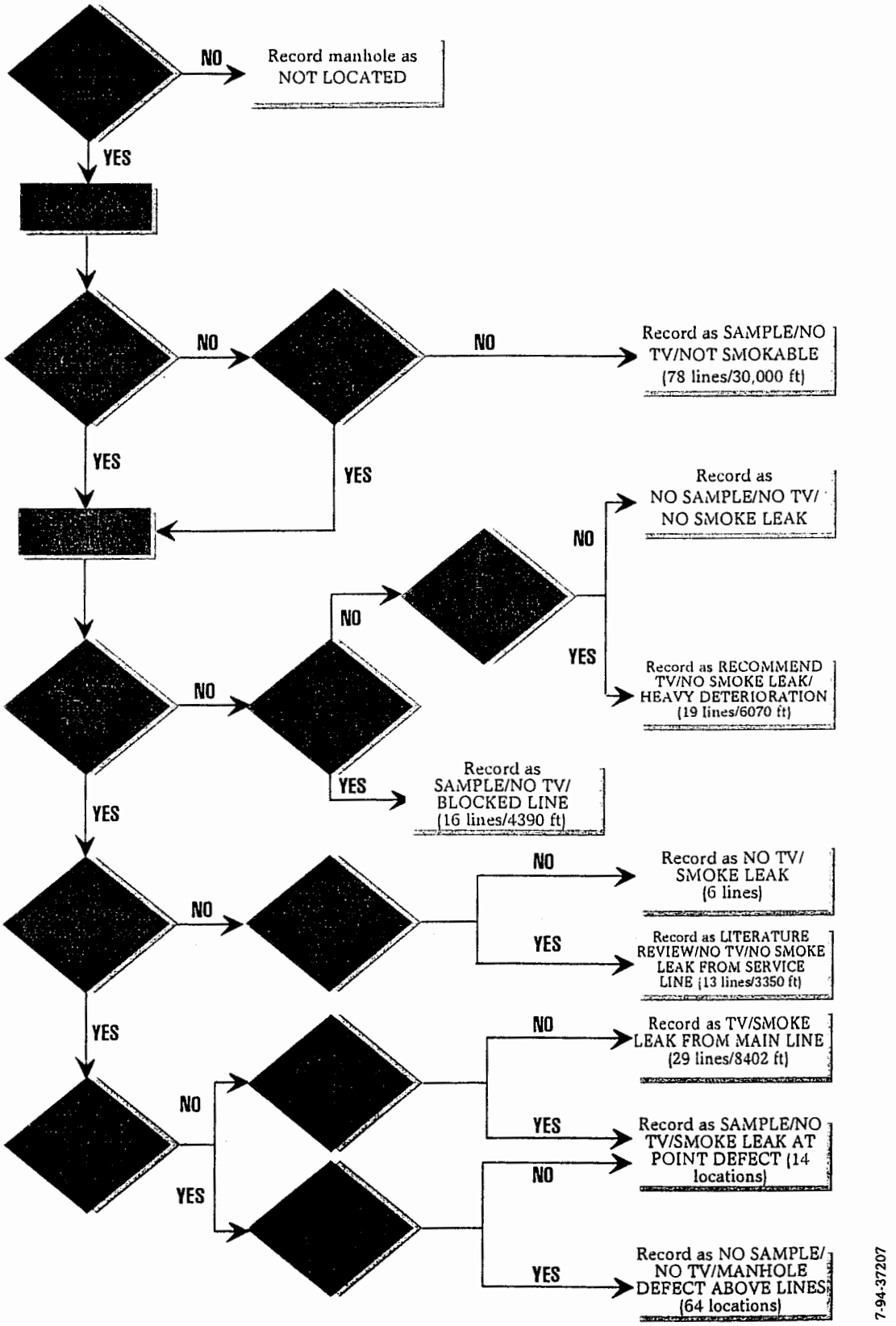


Figure 4.20-1. Holloman AFB SLI Decision Flowchart

Category	Description
Unsmokeable Line	Lines that were determined during the manhole inspection to be collapsed, blocked, or surcharged.
No Smoke Leak	Lines that exhibited no smoke leak.
No Smoke Leak/ Heavy Deterioration	Lines that exhibited no smoke leak, but were observed to have heavy deterioration.
Blocked Line	Lines that smoke could not pass through.
Smoke Leak from Clean Out	Smoke leaked at a sewer clean out.
Smoke Leak from Service Line	Smoke leaked from the ground above a service line for a facility.
Smoke Leak from Main Line	Smoke leaked from the ground above a main sewer line.
Smoke Leak at Point Defect	Smoke leaked from ground at a particular point instead of in an area.
MH Defect Above Lines	Manhole was cracked or broken above the level where the influent and effluent lines entered.

Step Three—A color TV inspection was performed on two of the categories described above: the lines that exhibited a main line smoke leak (8,402 ft) and the lines that had no smoke leak but were observed to have heavy deterioration (6,070 ft). This investigation helped to identify possible exfiltration points from the most heavily damaged lines. The inspection was performed by first cleaning the sewer line with a self-powered water jet. While cleaning the line, the jet also pulled a cable through the sewer line. The video camera was then slowly pulled through the line via the cable (or in some instances under its own power). As the camera passed through the line, field personnel made audio and visual notes on the tape as line defects became evident. Some of the lines (5,070 ft) to be TV inspected were partially blocked by debris and, consequently, could not be TV inspected.

4.20.3 Conclusions

The condition of most of the lines in the Air Base Sewer System was ascertained through this three-phase investigation. Some lines, which had no smoke leaks and no visual deterioration, were found to be in good condition and are probably not potential exfiltration points. Other lines, however, exhibited smoke leaks, heavy deterioration, and/or cracks, and therefore could represent points at which hazardous waste may have exited the system. In addition, all three phases of the investigation identified blocked, collapsed, or surcharged lines (lines filled to capacity with water) that could not be fully investigated.

4.20.4 Recommendations

A work plan for a Phase II RFI is being developed for the Air Base Sewer System. The work plan will include a detailed review of the data to determine precise lengths of the lines in each of the previously identified categories. Also, the status and condition of all the lines in the system will be summarized. A literature search will be conducted on all of the facilities that may have released waste into the portions of the sewer system that have been identified as possible exfiltration points. The literature search will be used to identify which hazardous waste constituents, if any, may have been released from that facility to the sewer system. From this information, a sampling plan will be developed for all of the portions of the sewer system that may have released hazardous waste into the surrounding soils.

[This page intentionally left blank.]

4.21 AOC-U—Lost River Basin

AOC-U is on Table 2 of Holloman AFB's HSWA permit. The basin has not been previously investigated. For this investigation, hand auger samples were collected in ten locations where contaminated runoff potentially enters the basin. The presence of elevated levels of acetone in samples from area 2 (runoff from the used rocket motor and drum storage area, and from Buildings 1168 and 1176) provide evidence of a limited release into the basin. However, the concentration of all detected constituents are below both the risk-based trigger criteria, and no COPCs were identified for the AOC; therefore it is highly unlikely that AOC-U poses a significant risk to human health or the enviroment.

Only one exposure pathway (inhalation of votatiles in the ambient air) and one receptor (on-site workers) were idenfied through the qualitative risk assessment. The risk-based screen indicates that none of the contaminants exceed health-based criteria for ingestion and that it is highly unlikely that these SWMUs pose a significant risk to human or ecological receptors. Risk from the ingestion pathway is generally greater than risk from the inhalation of volatiles and fugitive dust, and is, therefore, typically used to screen contaminant concentrations.

No further action is recommended for AOC-U; a Class 3 permit modification request will be completed by Holloman AFB to achieve no further action.

4.21.1 SWMU Description

Physical Features—AOC-U is a large drainage basin, known as the Lost River Basin, that receives runoff from various SWMUs and IRP sites in the North Base area. The basin remains dry for most of the year, but during periods of heavy rainfall, runoff enters the basin from surrounding areas.

Unit Description—Lost River Basin receives runoff from five general areas encompassing various SWMUs and IRP sites. The five potential source areas are shown in Figure 4.21-1 and include the following:

- The Causeway Rubble Disposal Site (IRP Site 40), located within the Basin to the west of Building 1176; this site was used for the disposal of concrete rubble;
- The used rocket motor and drum storage area, and runoff from Buildings 1168 and 1176 (SWMUs 177/181 and IRP Site 39, respectively);
- Runoff from SWMU 179 and from discarded plastics and possibly solid rocket fuel;
- Runoff from the test track, discarded plastics and possibly solid rocket fuel; and
- Runoff associated with Building 1166 (IRP Site 38 and SWMUs 40, 128, and 138).

Waste Description—Runoff from SWMUs 40, 128, 138, 165, 177, 179, and 181, including rocket motor fuels and drum storage area wastes, are potential source contaminants in the Basin.

Release History—The Lost River Basin has not been previously investigated, though several areas that drain to the basin have been. Previous investigation of IRP Site 40 resulted in a no further action decision (*Decision Document,* EA Engineering Science Technology, Inc., 1991). The RI for IRP Site 39 indicated possible releases of volatile organic compounds and metals (*RI Report,* Radian Corporation, 1992). The RI for IRP Site 38 indicated the presence of minimal contamination; but concluded that there is no significant risk to human health or the environment and recommended NFA (*RI Report* and *RA Report*, Radian Corporation, 1992).

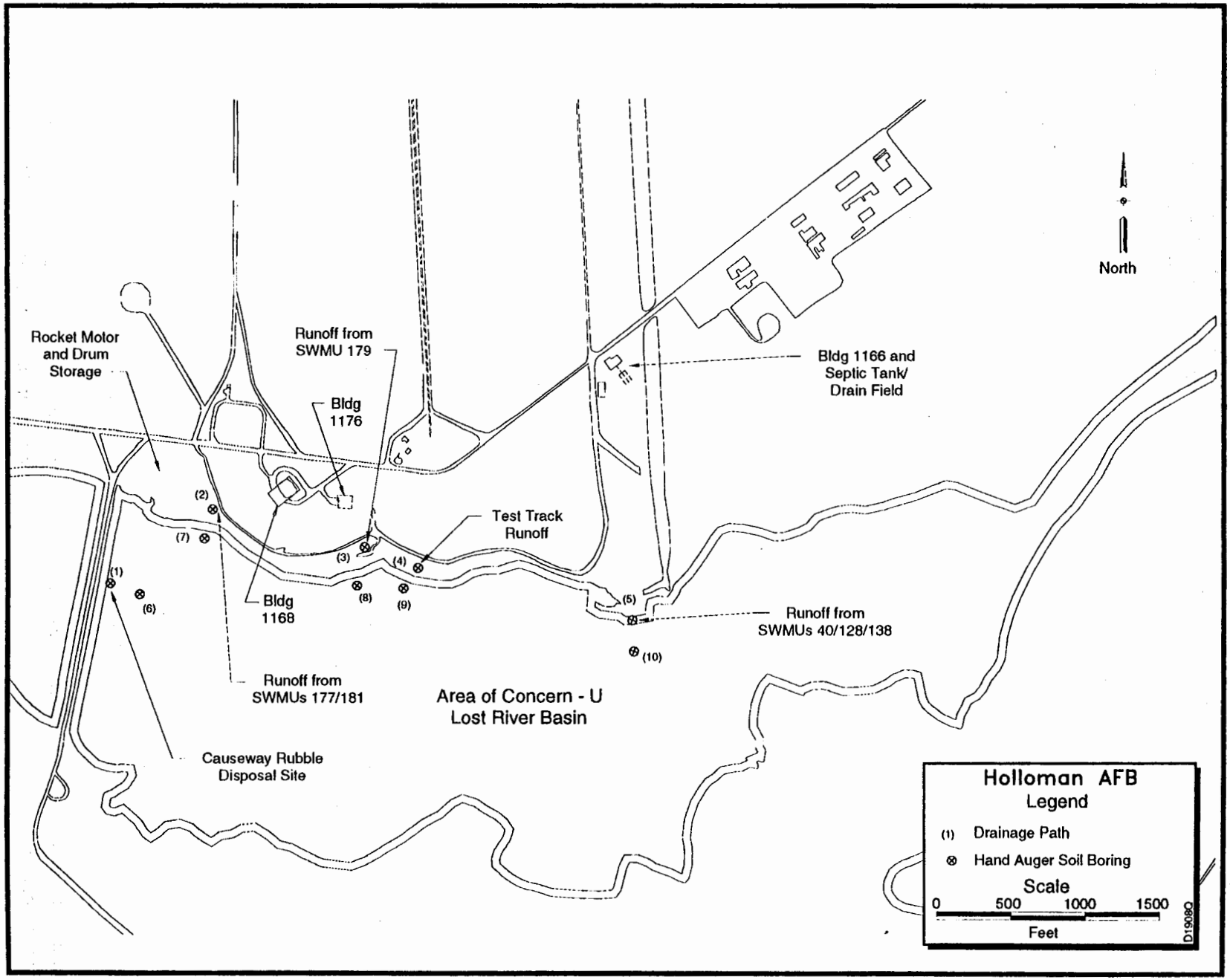


Figure 4.21-1. SWMU AOC-U Feature and Sampling Locations

4.21.2 Site Investigation and Results

Hand auger samples were collected from two locations at each of the five runoff areas. Samples from 0-2 ft and 2-4 ft were collected at the mouth of each of the five drainages, and 0-2 ft samples were collected 100 ft into the basin from each of the drainages. A soil sample was collected for geotechnical analysis. All samples were analyzed for particle size distribution. Geotechnical results are provided in Appendix E.

Geology and Hydrogeology

The subsurface conditions at AOC-U were defined by direct sampling using a hand auger and by observation. Surface soil in the basin consists primarily of clay.

Analytical Results

The results of the Phase I RFI at IRP Sites 39 and 40 (*RI Report*, Radian, 1992) were used to establish the following target analyte list at each of the five potential source areas at AOC-U:

- (AOC-U-A01 and -A06)—metals;
- (AOC-U-A02 and -A07)—TRPH, volatile and semivolatile organic compounds, metals, and pH;
- (AOC-U-A03 and -A08)—semivolatile organic compounds, metals, and pH;
- (AOC-U-A04 and -A09)—TRPH, volatile and semivolatile organic compounds, metals, and pH; and
- (AOC-U-A05 and -A10)—TRPH, volatile organic compounds, and metals. Summary analytical results are presented in Table 4.21-1.

Acetone and methylene chloride were detected in several of the samples, but were also detected at similar concentrations in some associated method blanks, so their presence in most of the samples is uncertain. Acetone was detected at concentrations above those detected in method blanks in samples from AOC-U-A02, -A04 and -A09. Trichloroethene was detected in a sample from AOC-U-A02, and carbon disulfide was detected in the the 0-2 ft sample from AOC-U-A09. No volatile organic compounds were detected at concentrations above trigger criteria.

Semivolatile organic compounds were not detected in any of the samples.

Barium, chromium, arsenic, lead and mercury were detected at concentrations above UTLs for background in several samples. However, none of the detected concentrations of metals exceeded trigger criteria.

4.21.3 Risk Assessment Results

A qualitative risk assessment was conducted for AOC-U to help determine the need for further investigation based on potential human health or ecological risk. Chemicals of potential concern (COPCs), exposure pathways and receptors were identified.

This Lost River Basin area is habitat for a variety of species, including the blacktailed jackrabbit, the White Sands pupfish, and an assortment of birds. Workers near, and downwind of, the basin may be exposed through inhalation of volatiles and fugitive dust. Residents in the Main Base area, located approximately 10 miles from the site, are too far away to be impacted.

Table 4.21-1
Analytical Results for Soil Samples—AOC-U

Location ID		AOC-U-A01		AOC-U-A01		AOC-U-A02		AOC-U-A02	
Sample ID		AOC-U-A01-01-01		AOC-U-A01-02-01		AOC-U-A02-01-01		AOC-U-A02-02-01	
Beg. Depth-End Depth (ft)		0-2		2-4		0-2		2-4	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	NA		NA		< DL	(36.1)	< DL	(36.5)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10 ^{6}]	NA		NA		990	(29)	154	(5.8)
Carbon disulfide	[8x10 ^{6}]	NA		NA		< DL	(1.4)	< DL	(1.4)
Methylene chloride	[9.3x10 ^{4}]	NA		NA		6 B	(1.4)	5.7 B	(1.4)
Trichloroethene	[NS]	NA		NA		8.5	(2.9)	< DL	(2.9)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	65.3	(0.0508)	29.8B	(0.0567)	34.7	(0.0576)	24.9	(0.0584)
Cadmium	[80]	0.392 B	(0.252)	< DL	(0.281)	0.304 B	(0.286)	< DL	(0.289)
Chromium	[6.6,8x10 ^{4}]	9.12	(0.239)	5.19	(0.268)	4.65	(0.272)	4.62	(0.275)
Silver	[0.73,400]	< DL	(0.16)	< DL	(0.179)	< DL	(0.182)	0.521 B	(0.185)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	3.67	(0.323)	< DL	(0.376)	< DL	(0.402)	< DL	(0.376)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	20.1 S	(0.951)	1.85 S	(0.111)	5.18 S	(0.237)	0.557 S	(0.111)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0148)	< DL	(0.0171)	< DL	(0.0174)	< DL	(0.0176)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	1.85 S	(0.244)	5.08 S	(0.285)	4.88 S	(0.304)	3.7 S	(0.285)
Location ID		AOC-U-A03		AOC-U-A03		AOC-U-A04		AOC-U-A04	
Sample ID		AOC-U-A03-01-01		AOC-U-A03-02-01		AOC-U-A04-01-01		AOC-U-A04-02-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	NA		NA		< DL	(36.3)	< DL	(39.9)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10 ^{6}]	NA		NA		< DL	(5.9)	31.2	(6.1)
Carbon disulfide	[8x10 ^{6}]	NA		NA		< DL	(1.5)	< DL	(1.5)
Methylene chloride	[9.3x10 ^{4}]	NA		NA		5.6 B	(1.5)	5.2 B	(1.5)
Trichloroethene	[NS]	NA		NA		< DL	(2.9)	< DL	(3)
SW8270 - Semivolatile Organics TICs (μg/g)									
No other compounds detected	[NS]	--	()	--	()	--	()	--	()
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	37.5	(0.053)	31.9	(0.0577)	45.8	(0.0542)	32.5	(0.0561)
Cadmium	[80]	0.286 B	(0.263)	< DL	(0.286)	< DL	(0.269)	< DL	(0.278)
Chromium	[6.6,8x10 ^{4}]	5.79	(0.25)	3.48	(0.272)	5.67	(0.256)	3.83	(0.264)
Silver	[0.73,400]	0.4 B	(0.168)	< DL	(0.182)	< DL	(0.171)	< DL	(0.177)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	< DL	(0.37)	< DL	(0.326)	1.72	(0.356)	< DL	(0.343)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	6.77 S	(0.218)	1.8 S	(0.0956)	1.57 S	(0.105)	0.929 S	(0.101)

Table 4.21-1 (Continued)

Location ID		AOC-U-A03		AOC-U-A03		AOC-U-A04		AOC-U-A04	
Sample ID		AOC-U-A03-01-01		AOC-U-A03-02-01		AOC-U-A04-01-01		AOC-U-A04-02-01	
Beg. Depth-End Depth (ft)		0-2		2-4		0-2		2-4	
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	0.025 B	(0.0171)	0.0273 B	(0.0188)	< DL	(0.0174)	0.0437 B	(0.019)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	3.08 S	(0.28)	3.55 S	(0.247)	1.75 S	(0.27)	2.05 S	(0.259)
Location ID		AOC-U-A05		AOC-U-A05		AOC-U-A06		AOC-U-A07	
Sample ID		AOC-U-A05-01-01		AOC-U-A05-02-01		AOC-U-A06-01-01		AOC-U-A07-01-01	
Beg. Depth-End Depth (ft)		0-2		2-4		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(38.3)	< DL	(42.7)	NA		< DL	(36.4)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10 ^{6}]	9.12 BJ	(22.5)	5.36 BJ	(25)	NA		40.8	(5.4)
Carbon disulfide	[8x10 ^{6}]	ND	(4.08)	ND	(4.53)	NA		< DL	(1.4)
Methylene Chloride	[9.3x10 ^{4}]	1.02 BJ	(3.2)	1.25 BJ	(3.55)	NA		4.7 B	(1.4)
Trichloroethene	[NS]	ND	(4.89)	ND	(5.42)	NA		< DL	(2.7)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	36.8	(0.0541)	24.6	(0.0663)	139	(0.0484)	94.1	(0.0512)
Cadmium	[80]	< DL	(0.268)	< DL	(0.329)	< DL	(0.24)	0.266 B	(0.254)
Chromium	[6.6,8x10 ^{4}]	4.9	(0.255)	4.04	(0.313)	26.2	(0.228)	16.8	(0.241)
Silver	[0.73,400]	< DL	(0.171)	< DL	(0.21)	< DL	(0.153)	< DL	(0.162)
SW7060 - Arsenic (mg/kg)									
Arsenic	[6.88,24]	0.0925 SJ	(0.252)	1.27 S	(0.382)	6.99	(0.363)	6.39	(0.306)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	1.02	(0.0638)	< DL	(0.0968)	16.3 S	(0.427)	13.5 S	(0.36)
SW7471 - Mercury (mg/kg)									
Mercury	[NS,24]	< DL	(0.0185)	0.0424	(0.0203)	< DL	(0.0167)	< DL	(0.0174)
SW7740 - Selenium (mg/kg)									
Selenium	[10.53,400]	2.78 S	(0.225)	4.67 S	(0.342)	2.08 S	(0.274)	1.74 S	(0.231)

Table 4.21-1 (Continued)

Location ID		AOC-U-A08		AOC-U-A09		AOC-U-A10	
Sample ID		AOC-U-A08-01-01		AOC-U-A09-01-01		AOC-U-A10-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)							
Hydrocarbons	[1000]	NA		< DL	(34.5)	< DL	(34.5)
SW8240 - Volatile Organics (μg/kg)							
Acetone	[8x10 ^{6}]	NA		3340	(6)	9.97 BJ	(20.3)
Carbon disulfide	[8x10 ^{6}]	NA		25.4	(1.5)	ND	(3.67)
Methylene Chloride	[9.3x10 ^{4}]	NA		5.6 B	(1.5)	1.19 BJ	(2.88)
Trichloroethene	[NS]	NA		< DL	(3)	ND	(4.4)
SW6010 - Metals (mg/kg)							
Barium	[84.36,5600]	143	(0.0575)	149	(0.057)	64.7	(0.054)
Cadmium	[80]	< DL	(0.285)	< DL	(0.283)	0.431 B	(0.267)
Chromium	[6.6,8x10 ^{4}]	28.6	(0.271)	28.5	(0.269)	12.5	(0.254)
Silver	[0.73,400]	< DL	(0.182)	< DL	(0.18)	< DL	(0.171)
SW7060 - Arsenic (mg/kg)							
Arsenic	[6.88,24]	7.36	(0.28)	7.24	(0.373)	0.23 SJ	(0.267)
SW7421 - Lead (mg/kg)							
Lead	[12.3,500]	17.3 S	(0.826)	15.7 S	(0.44)	6.99	(0.271)
SW7471 - Mercury (mg/kg)							
Mercury	[-0.0006,24]	< DL	(0.0162)	< DL	(0.0167)	0.0486	(0.0167)
SW7740 - Selenium (mg/kg)							
Selenium	[10.53,400]	2.48 S	(0.212)	0.168 SJ	(0.282)	4.1 S	(0.239)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using the MSA.

COPCs were selected using the methodology described in Attachment 1 to Appendix C. Attachment 5 of Appendix C presents the risk-based screening results for the selection of COPCs. All constituent concentrations in soil are well below EPA Region III screening criteria, so there are no COPCs for AOC-U.

Wildlife may be exposed to contaminants via several pathways, including inhalation of volatiles from water and soil, inhalation of fugitive dust, ingestion of surface water, incidental ingestion of soil, incidental dermal contact with water, dermal contact with soil, and ingestion of plants. Although the likelihood that wildlife will use the area as habitat is very high, since only minimal contamination was detected in relatively small and isolated areas, it is unlikely that the detected constituents pose a significant environmental risk.

4.21.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the determination of COPCs through the qualitative risk assessment, and a comparison of the results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

The presence of elevated levels of acetone in samples from area 2 (runoff from the used rocket motor and drum storage area, and from Buildings 1168 and 1176) provide evidence of a limited release into the basin. However, the concentration of all detected constituents are below both the risk-based trigger criteria, and no COPCs were identified for the AOC; therefore, it is highly unlikely that AOC-U poses a significant risk to human health or the enviroment.

4.21.5 Recommendations

No further action is recommended for AOC-U; a Class 3 permit modification request will be completed by Holloman AFB to achieve no further action.

[This Page Intentionally Left Blank.]

Section 5
Phase II Investigation Results, Conclusions, and Recommendations

This section contains the results, conclusions, and recommendations for each of the Phase II SWMU groups investigated. Sections 5.1 through 5.3 contain SWMU-specific discussions of the following:

- Executive summary for the SWMU group;
- SWMU features and history, including a SWMU figure (sources of information include the *RCRA Facility Assessment* [A.T. Kearney, 1988], and the literature search and field notes for this project);
- Summary of investigation;
- Geology and hydrogeology;
- Analytical results, including summary analytical data tables;
- Risk assessment results; and
- Conclusions and recommendations.

The Phase II SWMUs are listed in Table 5-1, and their locations are shown in Figure 5-1. Table 5-1 also lists the nature and the suspected release, the constituents detected above trigger criteria, the risk-based screen COPCs, and the recommendation for each SWMU group. Trigger criteria, COPCs, and the decision-making process used to determine recommendations are discussed in detail in section 3.

Table 5-1
Phase II Investigation Summary

SWMU	SWMU Description	Nature of Suspected Release	Analytes > Trigger Criteria	Risk-based Screen COPCs			Risk Assessment Results	Recommendations
				Surface Soil	Subsurface Soil	Groundwater		
118 132 AOC-A	Bldg. 21 Pesticide Holding Tank Bldg. 21 Entomology Leach Field Building 21 Pesticide	Pesticides, PCBs, and solvents spills	PCB 1260 and TRPH in soil. Gamma-BHC and heptachlor epoxide in groundwater.	heptachlor epoxide PCB-126-0	PCB-1260	alpha-BHC, benzene, chlorobenzene, dieldrin, ethylbenzene, gamma-BHC, heptachlor epoxide, methylene chloride, trichloroethene	Acceptable risk	CNFA
129 178	Bldg. 1191 Spill Tank Bldg. 1191 Fuel Runoff Pits	Unconventional fuels spills	TRPH in soil. Lead in drain sample.	benzo-a-pyrene	None	beryllium, bromodichloromethane, nitrate/nitrite, trichloroethene	Acceptable risk	CNFA
165 177 179 181	Bldg. 1176 Pond Bldg. 1176 Sumps Discharge Box Bldg. 1176 Drainage Trough	Unconventional fuels and solvents spills	TCE and TCA in groundwater.	arsenic, benzo-a-pyrene,	None	1,1-dichloroethene, beryllium, carbon tetrachloride, tetrachloroethene, trans-1,3-dichloropro-pene, trichloroethene, vinyl chloride	Acceptable risk	NFA

NFA = No further action.
CNFA = Conditional no further action.
NA = Not applicable.

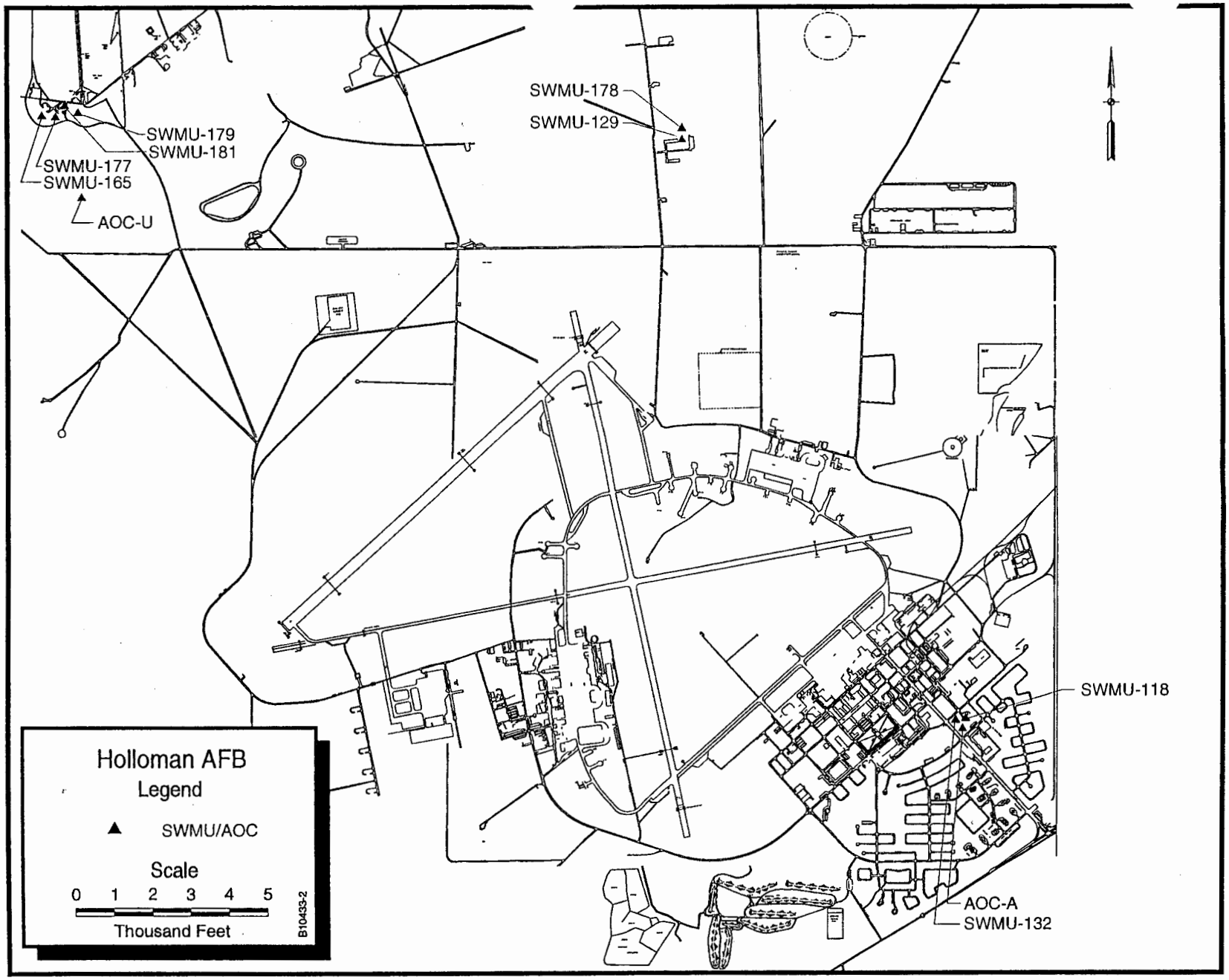


Figure 5-1. Phase II SWMU Locations at Holloman AFB, New Mexico

[This page intentionally left blank.]

5.1 SWMU 118—Building 21 Pesticide Holding Tank SWMU 132—Building 21 Leach Field (open pit) SWMU AOC-A—Open Concrete Containment Box

The former Entomology Shop (IRP Site 16) contains SWMUs 118, 132, and AOC-A. In addition, the SWMU group contains the former power plant area of Building 21. SWMU 118 is on Table 2 of Holloman AFB's HSWA permit. SWMUs 132 and AOC-A are on Table 1 of the permit and were investigated in the Table 1 Phase I RFI (*RI Report*, Radian, 1992). During the Phase I RFI, pesticides and volatile organic compounds were detected; however, sources and extent of contamination were not fully defined.

For this investigation, five soil borings were drilled at SWMU 118, four soil borings were drilled at SWMU 132, eight soil borings were drilled around the former Building 21 generator slabs, and six hand auger samples were collected at the former transformer pad To investigate groundwater, samples for laboratory analysis were collected from the four existing monitor wells and from seven temporary sampling points using the Geoprobe.

Analytical results indicate that: 1) PCBs are above trigger criteria in samples from two locations at SWMU 132; 2) TRPH are above trigger criteria in two samples from 2-4 ft beneath the generator pads; 3) Heptachlor epoxide is above trigger criteria in one surface soil sample from SWMU 118; 4) Heptachlor epoxide and gamma-BHC are above trigger criteria in several groundwater samples, including some samples from wells upgradient of Building 21.

The risk assessment for IRP Site 16 was updated and indicates that the constituents detected in soil do not pose a risk to human health or the environment. The risk assessment was not updated for groundwater because it has been determined that there are no complete pathways for groundwater at Holloman AFB, and the TRPH Site 16 assessment indicated that groundwater contamination at the site does not pose a risk to human health or the environment.

CNFA is recommended; the condition of NFA is remediation of TRPH-contaminated soil. Additional PCB and organochlorine pesticide sampling will be performed in an upcoming investigation.

5.1.1 SWMU Description

Physical Features—As shown in Figure 5.1-1 and 5.1-2, SWMUs 118, 132, and AOC-A are located on or adjacent to former Building 21. The power plant area is located in the northern half of former Building 21. The former transformer area is located immediately southeast of former Building 21.

Unit Description—SWMU 118 consists of a pesticide holding tank of unknown capacity and construction material. The tank was installed in 1986. In 1991, the tank was discovered to be leaking and was removed. Subsequently, a new tank was installed and was removed in August 1992. AOC-A consists of a concrete box of unknown capacity which contained the holding tank. After removal of the tank in 1992, AOC-A was backfilled with dirt. SWMU 132 consists of an unlined drainage pit of unknown volume that has been backfilled and covered with gravel. The drainage pit was operated prior to the installation of SWMU 118.

Prior to conversion into an entomology shop, former Building 21 contained six diesel generators, and transformers were used for power generation.

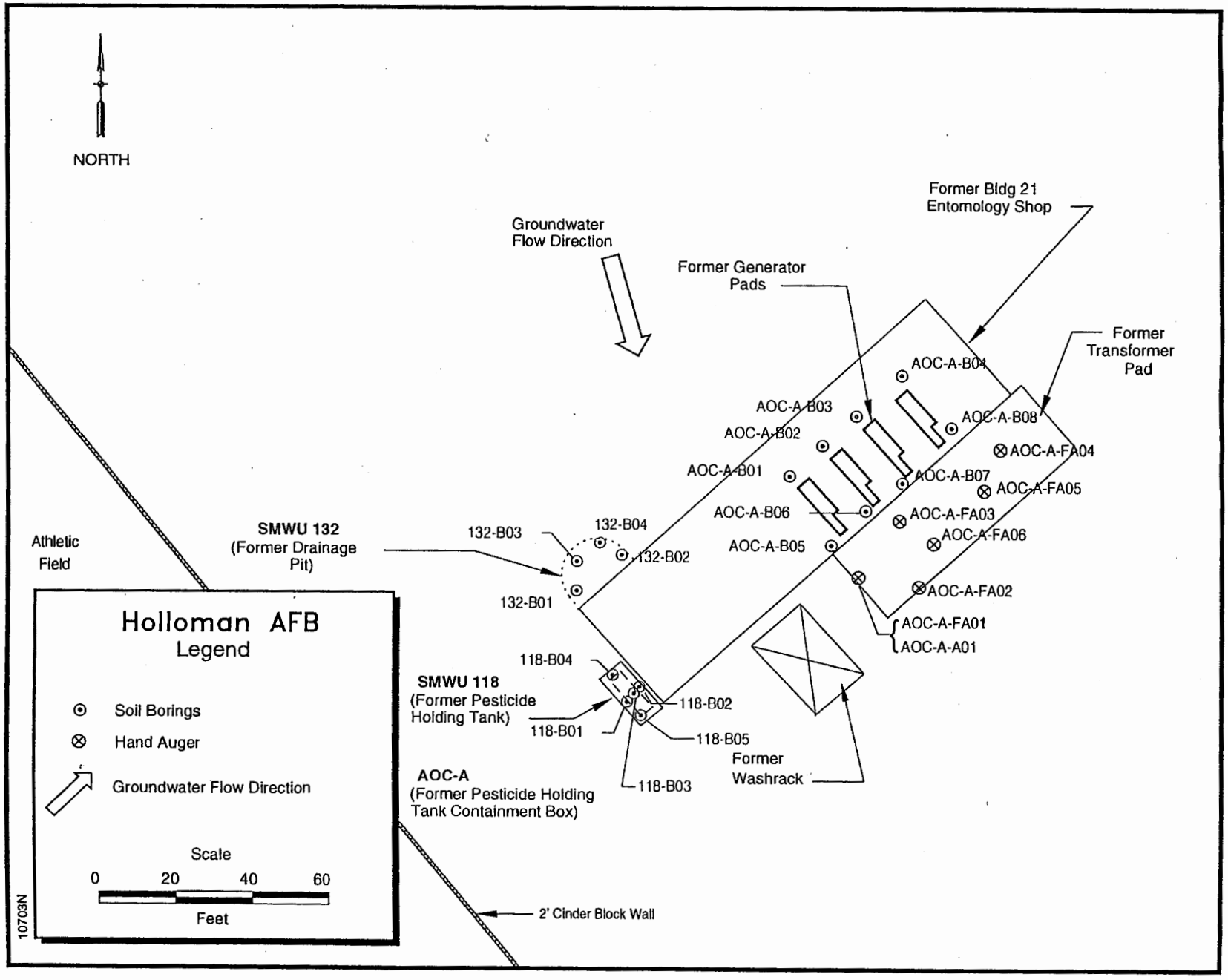


Figure 5.1-1. Features and Soil Sampling Locations at SWMUs 118, 132, and AOC-A

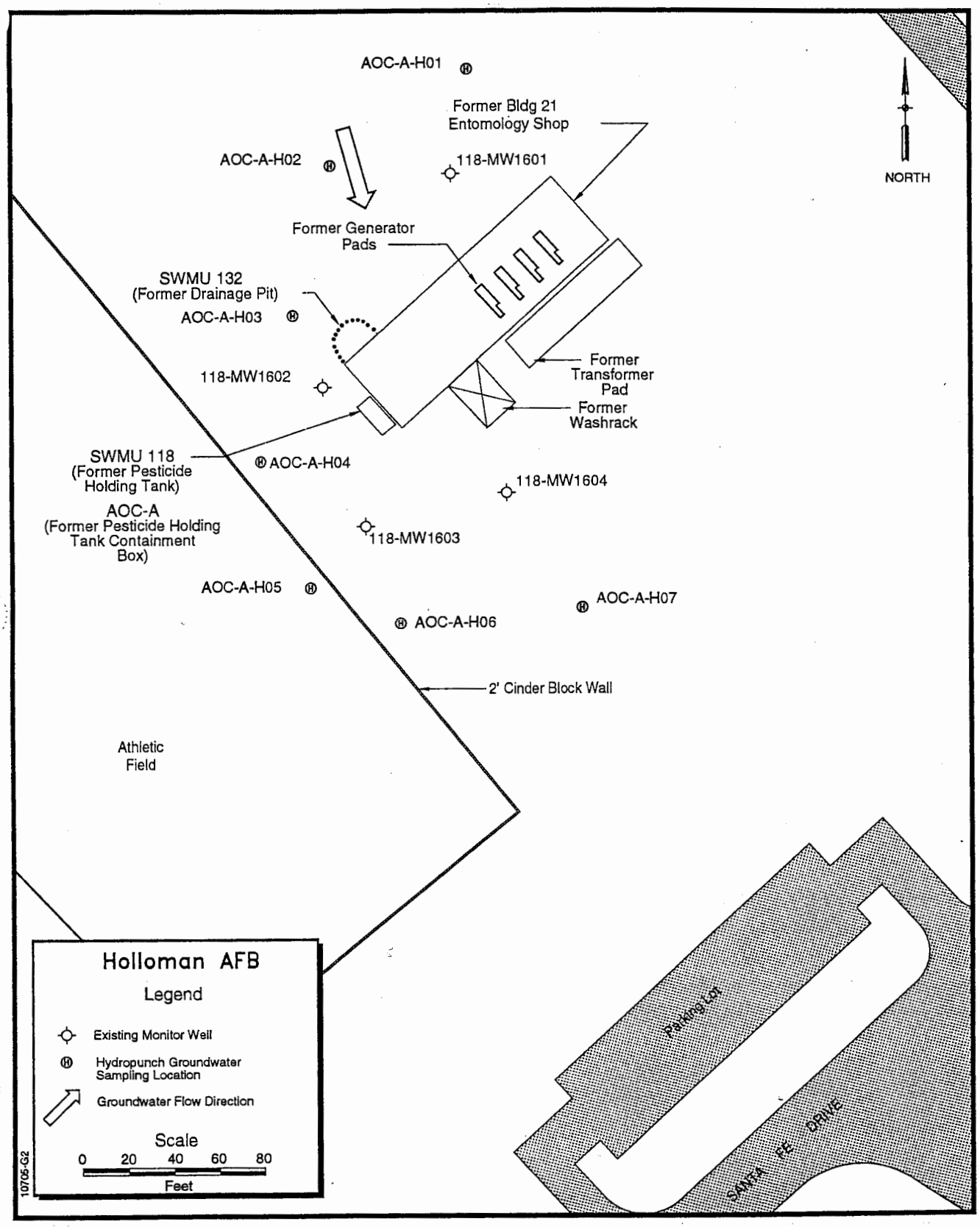


Figure 5.1-2. Features and Groundwater Sampling Locations at SWMUs 118, 132, and AOC-A

Waste Description—Rinsate from the cleaning of portable pesticide sprayers, which included rinse water, detergent, and pesticide residue. The liquids collected in SWMU 118 were removed and used as herbicides at Holloman AFB.

During the conversion of Building 21 from a power plant to an entomology shop, diesel fuel was observed beneath a concrete slab and in areas where the generators had been located.

Release History—Prior to the use of the pesticide holding tank (SWMU 118), rinsate was discharged the drainage pit (SWMU 132). No spills associated with the SWMUs have been reported; however, according to Holloman AFB personnel, while filling the holding tank (SWMU 118), some rinsate would spill over the side.

5.1.2 Site Investigation and Results

Samples were collected from four different areas for this investigation.

SWMU 118—Five soil borings were drilled in the former Building 21 pesticides holding tank, as shown in Figure 5.1-1. In the boring drilled through the center of the former concrete containment box, split spoon samples were collected every two ft to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from each of the intervals. In the four borings surrounding the box, split spoon samples were collected every two ft to a depth of 4 ft bgl. Chemical analytical samples were collected from the interval at the bottom of the boring (2-4 ft or 4-6 ft). Groundwater was encountered at approximately 4 ft bgl.

SWMU 132—Four soil borings were drilled in the former Building 21 Leach Field (formerly an open pit). Split spoon samples were collected every two ft to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the 0-1 ft interval of each boring for risk assessment purposes. Then, for each boring, the soil from the 0-2 ft and 2-4 ft intervals was combined and a composite sample was submitted for chemical analysis.

AOC-A Former generator pads and transformer area—Eight soil borings were drilled at the former generator pads. Split spoon samples were collected every two ft to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from the interval that intersected groundwater, and the interval with the highest OVM headspace reading. A sample from the surface interval in each boring was also collected for field PCB screening. In all borings concrete was encountered between 1.5 and 2 ft bgl. Six hand auger samples were collected from the former transformer area for field PCB screening (Figure 5.1-2).

Groundwater—Groundwater samples were collected from the four existing monitor wells, and from seven temporary sampling locations using the Geoprobe.

Geology and Hydrogeology

The subsurface conditions at SWMUs 118, 132, and AOC-A were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of silty and clayey sand. Silty sandy fill was encountered from the surface to approximately 1.5 ft bgl. Groundwater occurs in silty sand approximately 4

ft bgl. Groundwater in this part of the Base generally flows to the south-southeast.

Analytical Results

SWMU 118—All samples were analyzed for TRPH, volatile organic compounds, organochlorine and organophosphorus pesticides, chlorinated herbicides, and PCBs. Summary analytical results are presented in Table 5.1-1.

The results of PCB-1260 and TRPH and of delta-BHC, heptachlor epoxide, and 4'4-DDE concentrations in the soil are presented graphically on Figures 5.1-3 and 5.1-4, respectively.

TRPH were detected in several of the samples, but none of the detected concentrations exceeded trigger criteria. TRPH was also detected in the associated method blanks so reported results may be biased high.

The volatile organic compounds chloromethane and methylene chloride were detected in one sample at concentrations below detection limits. However, no volatile organic compounds were detected at concentrations above trigger criteria. Methylene chloride was detected in several other samples at concentrations slightly above detection limits. Acetone was detected in all the samples, but was also detected in some of the associated method blanks, so results may be slightly biased high.

Although a variety of compounds were detected, all confirmed concentrations are below trigger criteria. Several pesticides and herbicides were detected on one GC column, but could not be confirmed on the second column, so their presence is uncertain. These results are flagged with a "K" or a "P" in Table 5.1-1. Diazinon was detected in all of the samples, but this compound was also detected at similar concentrations in associated method blanks, so its presence in the samples is also uncertain. Diazinon results are flagged with a "B" in Table 5.1-1. The following pesticides and herbicides were detected on the first GC column, but could not be confirmed on the second GC column, so their presence is uncertain: dieldrin, endosulfan I, endosulfan sulfate, endrin, endrin aldehyde, heptachlor, heptachlor epoxide, coumaphos, dichlorovos, fensulfothion, fenthion, merphos B, methyl azinphos, phorate, sulprofos (bolstar), 2,4,5-T, 2,4,5-TP (silvex), dicamba, and dinoseb. A variety of organochlorine pesticides, organophosphorus pesticides, and chlorinated herbicides were detected and confirmed in the samples, including 4,4'-DDD, -DDE, and -DDT; endosulfan II; alpha-, delta-, and gamma-BHC; chlorpyrifos (dursban); diazinon; ethoprop; melvinphos; naled; tetrachlorvinphos; 2,4-D and -DB; dichloroprop; and MCPA. In general, more pesticides and higher concentrations were detected in surface samples than in subsurface samples. The majority of the confirmed detections were in the surface samples from 118-B01 and 118-B05.

SWMU 132—All samples were analyzed for organochlorine pesticides, and most were analyzed for PCBs. Summary analytical results are presented in Table 5.1-2.

Although a variety of pesticides were detected, all concentrations are below trigger criteria. A variety of pesticides were detected on the first GC column, but could not be confirmed on the second GC column, so their presence is uncertain. These results are flagged with a "K" or "P." Several other pesticides were detected but could not be confidently quantified due to matrix interference caused by the presence of PCB arochlor 1260. These results are flagged with a "Z." The following pesticides and herbicides

Table 5.1-1
Analytical Results for Soil Samples—SWMU 118

Location ID		118-B01		118-B02		118-B03		118-B04		118-B05		118-B05		118-B05	
Sample ID		118-B01-01-01		118-B02-01-01		118-B03-01-01		118-B04-01-01		118-B05-01-01		118-B05-02-01		118-B05-03-01	
Beg. Depth-End Depth (ft)		2-4		4-6		4-6		2-4		0-2		2-4		4-6	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)															
Hydrocarbons	[1000]	43.8 B	(34)	< DL	(33.6)	< DL	(33.5)	59.9 B	(34.9)	83.4 B	(33.9)	< DL	(35.6)	39.3 B	(33.3)
SW8240 - Volatile Organics (μg/kg)															
Acetone	[8x10 ^{6}]	39.5	(1.7)	120	(32.7)	124	(32.9)	150	(34)	647	(8.35)	1160 X	(119)	718	(8.37)
Chloromethane	[5.4x10 ^{5}]	2.66 BJ	(2.76)	ND	(2.89)	ND	(2.9)	ND	(3)	ND	(2.91)	ND	(3.07)	ND	(2.85)
Methylene chloride	[9.3x10 ^{4}]	1.62 J	(2.97)	3.21	(1.84)	6.17	(1.85)	3.37	(1.91)	3.35	(1.85)	5.14	(1.95)	2.82	(1.81)
SW8080 - Organochlorine Pesticides and PCBs (μg/kg)															
4,4'-DDD	[2917]	10.8 J	(10.9)	ND	(10.8)	ND	(10.7)	ND	(3.35)	9.6 J	(10.8)	4.27 J	(11.4)	5.21 KJ	(10.7)
4,4'-DDE	[2059]	3.89	(2.18)	ND	(2.15)	ND	(2.14)	ND	(2.23)	ND	(1.63)	3.1	(2.28)	3.3	(2.13)
4,4'-DDT	[2059]	51.1	(3.13)	ND	(3.1)	0.925 KJ	(2.82)	ND	(2.93)	ND	(2.85)	ND	(3.28)	ND	(3.06)
Aldrin	[41.17]	2.88	(1.09)	ND	(1.08)	ND	(1.07)	13.7 P	(1.12)	9.26 P	(1.08)	34.1 P	(1.14)	4.23 P	(1.07)
Dieldrin	[43.75]	ND	(2.18)	ND	(2.56)	ND	(2.55)	ND	(2.23)	9.03 P	(2.57)	ND	(2.28)	ND	(2.53)
Endosulfan I	[NS]	ND	(2.18)	ND	(2.15)	ND	(2.14)	ND	(2.23)	ND	(2.17)	ND	(2.28)	1.44 KJ	(2.13)
Endosulfan II	[NS]	7.34 J	(8.16)	1.2 KJ	(8.08)	ND	(8.04)	5.19 PJ	(8.38)	ND	(2.03)	3 KJ	(8.55)	2.1 KJ	(7.99)
Endosulfan sulfate	[NS]	1.54 KJ	(5.9)	ND	(5.83)	ND	(5.81)	ND	(6.05)	ND	(5.87)	ND	(6.17)	ND	(5.77)
Endrin	[2.4x10 ^{4}]	1.32 PJ	(4.35)	ND	(7.63)	ND	(7.6)	161 P	(7.91)	8.11 P	(7.68)	ND	(8.07)	5.16 PJ	(7.55)
Endrin aldehyde	[NS]	ND	(4.08)	ND	(4.93)	ND	(4.92)	ND	(4.19)	3.84 KJ	(4.97)	1.13 KJ	(5.22)	1.18 KJ	(4.88)
Heptachlor	[156]	ND	(1.32)	ND	(1.3)	ND	(1.3)	ND	(1.21)	ND	(1.17)	1.36 KJ	(1.38)	ND	(1.15)
Heptachlor epoxide	[76.92]	0.322 PJ	(1.09)	ND	(1.48)	0.764 KJ	(1.47)	6.09 P	(1.54)	386 P	(1.49)	2.98 P	(1.57)	1.44 PJ	(1.46)
alpha-BHC	[111]	ND	(0.907)	ND	(0.897)	ND	(0.894)	ND	(0.931)	5.28	(0.903)	ND	(0.95)	4.5	(0.888)
delta-BHC	[NS]	ND	(0.862)	ND	(0.808)	ND	(0.849)	60.5 P	(0.838)	14.2	(0.813)	ND	(0.902)	9.88	(0.799)
gamma-BHC	[538]	ND	(1.04)	ND	(1.03)	ND	(1.03)	ND	(1.07)	6.81	(1.04)	4.36	(1.09)	ND	(1.02)
Chlorpyrifos (Dursban)	[2.4x10 ^{6}]	12.2 J	(92.2)	2.28 KJ	(8.07)	4.24 J	(90.4)	4.16 J	(93.4)	531 J	(922)	2700	(969)	24 J	(90)
Coumaphos	[NS]	ND	(10)	ND	(9.66)	ND	(9.85)	ND	(10.2)	2.34 KJ	(10)	ND	(10.6)	ND	(9.8)
Diazinon	[7.2x10 ^{4}]	5.56 BJ	(13.2)	1.79 BJ	(12.7)	1.29 BJ	(12.9)	0.905 BJ	(13.3)	77.9 B	(13.2)	32.9 B	(13.8)	2.08 BJ	(12.9)
SW8140 - Organophosphorus Pesticides (μg/kg) (Continued)															
Dichlorvos	[2414]	ND	(9.58)	ND	(9.22)	ND	(9.4)	ND	(9.71)	48.5 KJ	(115)	ND	(10.1)	ND	(9.35)
Ethoprop	[NS]	1.57 KJ	(8.71)	1.39 KJ	(8.39)	3.28 KJ	(8.55)	1.85 KJ	(8.83)	2.33 J	(10.5)	5.39 KJ	(9.16)	3.39 KJ	(8.51)
Fensulfothion	[NS]	4.65 KJ	(13.5)	ND	(14.2)	3.85 KJ	(13.3)	4.56 KJ	(13.7)	ND	(14.7)	ND	(15.5)	5.39 KJ	(13.2)
Fenthion	[NS]	4.54 KJ	(33)	ND	(32.6)	ND	(33.2)	5.5 KJ	(33.5)	12.4 KJ	(33)	1.77 PJ	(35.6)	1.7 KJ	(32.2)
Merphos B	[NS]	ND	(13)	ND	(12.5)	ND	(12.8)	ND	(13.2)	6.06 KJ	(13)	2.83 KJ	(13.7)	ND	(12.7)

Table 5.1-1 (Continued)

Location ID		118-B01		118-B02		118-B03		118-B04		118-B05		118-B05		118-B05	
Sample ID		118-B01-01-01		118-B02-01-01		118-B03-01-01		118-B04-01-01		118-B05-01-01		118-B05-02-01		118-B05-03-01	
Beg. Depth-End Depth (ft)		2-4		4-6		4-6		2-4		0-2		2-4		4-6	
Methyl azinphos	[NS]	ND	(12.4)	ND	(11.9)	ND	(12.1)	ND	(12.5)	4.55 PJ	(12.4)	2.89 PJ	(13)	1.35 KJ	(12.1)
Mevinphos	[NS]	ND	(6.22)	ND	(5.99)	ND	(6.11)	ND	(6.31)	4 KJ	(6.22)	3.68 J	(6.54)	ND	(6.08)
Naled	[NS]	4.31 KJ	(15.4)	4.29 KJ	(14.8)	6.9 KJ	(15.1)	4.88 KJ	(15.6)	ND	(15.4)	16.3	(16.2)	7.45 KJ	(15.1)
Phorate	[1.6x10 ^{4}]	ND	(26.1)	ND	(25.1)	ND	(25.6)	ND	(26.5)	ND	(26.1)	7.99 KJ	(23.9)	1.91 KJ	(22.2)
Sulprofos (Bolstar)	[NS]	ND	(34.2)	ND	(32.9)	ND	(33.6)	ND	(34.7)	1.85 KJ	(34.2)	3.77 KJ	(36)	ND	(33.4)
Tetrachlorvinphos	[2.9x10 ^{5}]	1.29 J	(11.8)	ND	(11.4)	ND	(11.6)	0.703 KJ	(12)	2.37 J	(11.8)	1.24 J	(12.4)	0.963 J	(11.5)
SW8150 - Chlorinated Herbicides	(μg/kg)														
2,4,5-T	[8x10 ^{5}]	2.74 PJ	(17.6)	ND	(3.43)	ND	(17)	0.79 PJ	(17.8)	11.2 P	(3.53)	7.62 P	(3.69)	2.9 KJ	(3.4)
2,4,5-TP (Silvex)	[6.4x10 ^{5}]	ND	(3.05)	ND	(2.98)	2.99 P	(2.95)	ND	(3.09)	7.23 P	(3.06)	ND	(3.2)	ND	(2.95)
2,4-D	[8x10 ^{5}]	ND	(41.5)	ND	(40.6)	ND	(40.3)	ND	(21.3)	ND	(41.7)	47.4	(43.6)	ND	(40.1)
2,4-DB	[6.4x10 ^{5}]	ND	(24.5)	ND	(26.7)	6 KJ	(23.7)	23.2 KJ	(27.6)	18.4 J	(27.4)	15 J	(28.6)	1.67 KJ	(26.4)
Dicamba	[2.4x10 ^{6}]	1.86 KJ	(2.68)	2.42 KJ	(2.61)	1.99 KJ	(2.59)	0.25 PJ	(2.13)	ND	(2.11)	ND	(2.21)	ND	(2.03)
Dichlorprop	[NS]	2.7 PJ	(47.8)	6.12 J	(547)	114 KJ	(543)	195 J	(568)	16 PJ	(48)	60.3 P	(50.1)	11.3 PJ	(46.2)
Dinoseb	[8x10 ^{4}]	ND	(26.9)	ND	(26.3)	ND	(26.1)	ND	(27.2)	22.8 KJ	(27)	ND	(28.2)	ND	(26)
MCPA	[4x10 ^{4}]	ND	(8750)	5120 KJ	(8540)	ND	(8480)	ND	(2710)	21500	(8780)	ND	(2810)	ND	(8450)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
NS = Not specified.
ND = Not detected.
B = Analyte detected in associated blank analyses.
J = Estimated concentration, analyte detected at concentration below the detection limit.
K = Not confirmed, peak did not meet method identification criteria. Analyte not detected on other GC column.
P = Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.
X = This result is from a reanalysis performed out of hold time. Acetone was outside the range of calibration in the previous analysis.

Location	Depth (ft)	PCB-1260 (µg/kg)	TRPH (mg/kg)
AOC-A-A01	0-0.33	ND	NA
AOC-A-B01	0-2	NA	<DL
AOC-A-B01	2-4	NA	10300 B
AOC-A-B02	0-2	4.36	<DL
AOC-A-B02	4-6	NA	487
AOC-A-B03	0-2	7.72	133
AOC-A-B03	2-4	NA	18900
AOC-A-B04	0-2	NA	37.6 B
AOC-A-B04	4-6	NA	<DL
AOC-A-B05	0-2	NA	<DL
AOC-A-B05	2-4	NA	<DL
AOC-A-B06	0-2	NA	<DL
AOC-A-B06	2-4	NA	32.8
AOC-A-B07	0-2	3.63	<DL
AOC-A-B07	2-4	NA	39.6 B
AOC-A-B08	0-2	NA	<DL
AOC-A-B08	2-4	ND	<DL

Location	Depth (ft)	PCB-1260 (µg/kg)	TRPH (mg/kg)
132-B01 (RA)	0-1	7.61 P	NA
132-B01	0-4	NA	NA
132-B02 (RA)	0-1	581	NA
132-B02	0-4	639	NA
132-B03 (RA)	0-1	502	NA
132-B03	0-4	406	NA
132-B04 (RA)	0-1	10.3	NA
132-B04	0-4	NA	NA

Location	Depth (ft)	PCB-1260 (µg/kg)	TRPH (mg/kg)
118-B01	2-4	NA	43.8 B
118-B02	4-6	NA	<DL
118-B03	4-6	NA	<DL
118-B04	2-4	NA	59.9 B
118-B05	0-2	NA	83.4 B
118-B05	2-4	NA	<DL
118-B05	4-6	NA	39.3 B

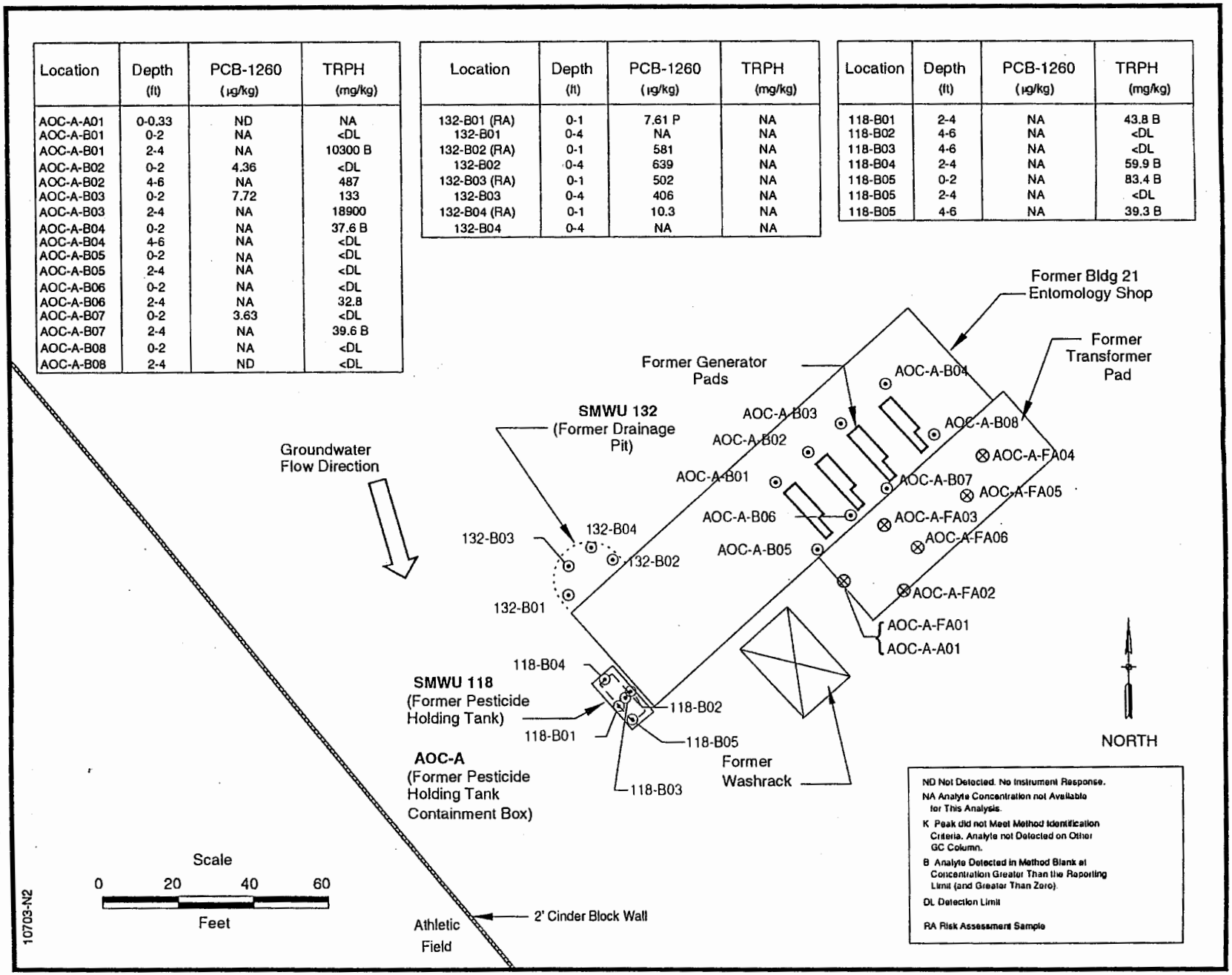


Figure 5.1-3. Occurrences of PCB-1260 and TRPH in Soil at SWMUs 118, 132, and AOC-A

Location	Depth (ft)	delta-BHC (µg/kg)	Heptachlor epoxide (µg/kg)	4,4' DDE (µg/kg)
118-B01	2-4	ND	0.322 PJ	3.89
118-B02	4-6	ND	ND	ND
118-B03	4-6	ND	0.764 KJ	ND
118-B04	2-4	60.5	6.09 P	ND
118-B05	0-2	14.2	386 P	ND
118-B05	2-4	ND	2.98 P	3.1
118-B05	4-6	9.88	1.44 J	3.3

Location	Depth (ft)	delta-BHC (µg/kg)	Heptachlor epoxide (µg/kg)	4,4' DDE (µg/kg)
132-B01	0-4	0.634	0.0681 KJ	0.385
132-B02	0-4	1.69	1.31	1.0 PZ
132-B03	0-4	2.14	0.082 J	0.685 PZ
132-B04	0-4	ND	ND	ND

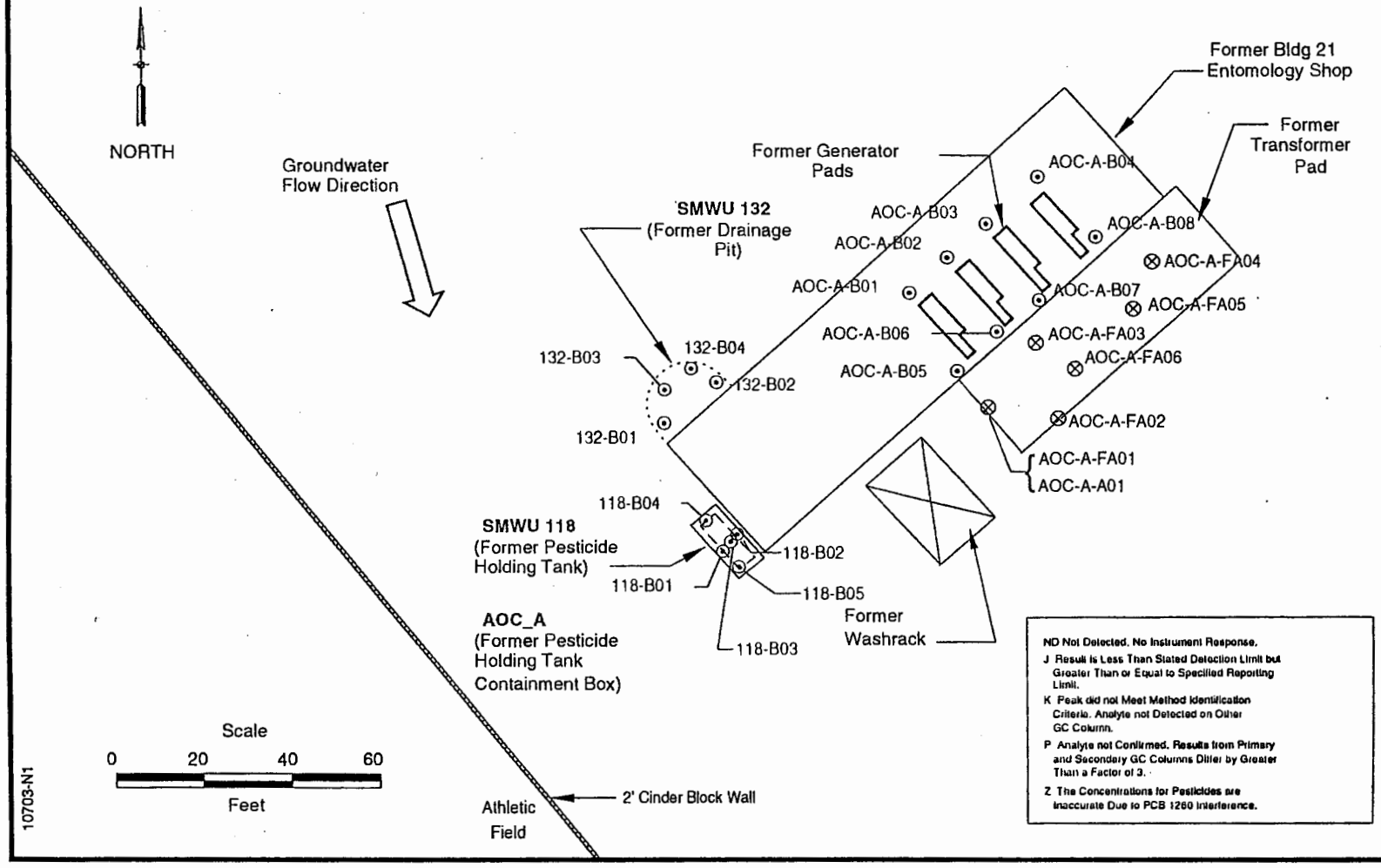


Figure 5.1-4. Occurrences of Delta-BHC, Heptachlor Epoxide and 4-4-DDE in the Soil at SWMUs 118, 132, and AOC-A

Table 5.1-2
Analytical Results for Soil Samples—SWMU 132

Location ID	132-B01		132-B01		132-B02		132-B02	
Sample ID	132-B01-01-01		132-B01-RA		132-B02-01-01		132-B02-RA	
Beg. Depth-End Depth (ft)	0-4		0-1		0-4		0-1	
SW8080 - Organochlorine Pesticides and PCBs (μg/kg)								
4,4'-DDD [2917]	0.445 J	(0.978)	NA		3.03 Z	(1.91)	NA	
4,4'-DDE [2059]	0.385	(0.196)	NA		1 PZ	(0.381)	NA	
4,4'-DDT [2059]	1.31	(0.281)	NA		16.2 PZ	(0.5)	NA	
Aldrin [41.17]	0.26	(0.0978)	NA		0.668	(0.191)	NA	
Dieldrin [43.75]	ND	(0.196)	NA		ND	(0.381)	NA	
Endosulfan I [NS]	0.114 KJ	(0.196)	NA		0.282 KJ	(0.286)	NA	
Endosulfan II [NS]	0.229 PJ	(0.734)	NA		21 Z	(1.43)	NA	
Endrin [$2.4x10^4$]	0.56 KJ	(0.693)	NA		11 PZ	(0.762)	NA	
Endrin aldehyde [NS]	0.224 PJ	(0.448)	NA		48.6 Z	(0.873)	NA	
Heptachlor [156]	ND	(0.106)	NA		0.0546 KJ	(0.206)	NA	
Heptachlor epoxide [76.92]	0.0681 KJ	(0.135)	NA		1.31	(0.262)	NA	
Methoxychlor [$4x10^5$]	0.343 KJ	(1.83)	NA		103 Z	(3.1)	NA	
PCB-1260 [91]	NA		7.61 P	(2.05)	639	(4.05)	581	(4.01)
delta-BHC [NS]	0.634	(0.0734)	NA		1.69	(0.143)	NA	
gamma-BHC [538]	0.344	(0.0938)	NA		ND	(0.31)	NA	
Location ID	132-B03		132-B03		132-B04		132-B04	
Sample ID	132-B03-01-01		132-B03-RA		132-B04-01-01		132-B04-RA	
Beg. Depth-End Depth (ft)	0-4		0-1		0-4		0-1	
SW8080 - Organochlorine Pesticides and PCBs (μg/kg)								
4,4'-DDD [2917]	1.47 ZJ	(1.93)	NA		3.22 P	(0.962)	NA	
4,4'-DDE [2059]	0.685 PZ	(0.387)	NA		ND	(0.192)	NA	
4,4'-DDT [2059]	9.78 PZ	(0.507)	NA		ND	(0.252)	NA	
Aldrin [41.17]	0.482 P	(0.193)	NA		ND	(0.0962)	NA	
Dieldrin [43.75]	1.75 Z	(0.459)	NA		0.267 P	(0.192)	NA	
Endosulfan I [NS]	0.193 KJ	(0.29)	NA		ND	(0.192)	NA	
Endosulfan II [NS]	13.1 Z	(1.45)	NA		2.27	(0.721)	NA	
Endrin [$2.4x10^4$]	6.57 PZ	(0.773)	NA		14	(0.681)	NA	
Endrin aldehyde [NS]	29.6 Z	(0.886)	NA		4.08 P	(0.441)	NA	
Heptachlor [156]	ND	(0.234)	NA		0.0344 PJ	(0.104)	NA	
Heptachlor epoxide [76.92]	0.082 J	(0.266)	NA		ND	(0.132)	NA	
Methoxychlor [$4x10^5$]	63.4 Z	(3.14)	NA		ND	(1.56)	NA	
PCB-1260 [91]	406	(4.11)	502	(3.96)	NA		10.3	(1.97)
delta-BHC [NS]	2.14	(0.145)	NA		ND	(0.0721)	NA	
gamma-BHC [538]	ND	(0.314)	NA		ND	(0.0921)	NA	

Table 5.1-2 (Continued)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
DL = Detection limit.
J = Estimated concentratioin, analyte detected at concentration below the detection limit.
K = Not confirmed, peak did not meet method identification criteria. Analyte not detected on other GC column.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
P = Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.
Z = The concentrations for pesticides are inaccurate due to PCB-1260 interference.

were detected but had no confirmed hits in any of the samples: endosulfan I and heptachlor. All other pesticides were detected and confirmed in at least one sample. These pesticides include: 4,4'-DDD, -DDE, and -DDT; aldrin, dieldrin, endosulfan II, endrin aldehyde, heptachlor epoxide, delta- and gamma-BHC, and methoxy chlor.

PCB-1260 was detected and confirmed in surface soil at a concentration of 639 µg/kg and 581 µg/kg at boring 132-B02 and 502 µg/kg and 406 µg/kg at 132-B03. Concentrations detected in both locations exceed trigger criteria.

AOC-A Former generator slabs and transformer area—All soil boring samples were analyzed for TRPH and volatile organic compounds. Visibly contaminated samples were analyzed for semivolatile organic compounds. Surface samples from all locations, and the six surface samples from the transformer area, were field screened for PCBs. The field screen detected PCBs in only one sample (AOC-A-B07). This sample, and three other visibly contaminated samples (i.e., two from the generator slabs, and one from the transformer area) were submitted to the laboratory for confirmation analysis for PCBs. Summary analytical results are presented in Table 5.1-3

TRPH were detected in most of the samples. However, detected concentrations exceeded trigger criteria in only two of the samples from AOC-A-B01-02 and AOC-A-B03-02. Both of these samples are from the 2-4 ft interval. TRPH was detected below trigger criteria at all other sampling locations;; including the 2-4 ft sample at boring AOC-A-B02, which is located between borings AOC-A-B01 and AOC-A-B03. This provides evidence that elevated TRPH concentrations at boring AOC-A-B01 and AOC-A-B-3 are isolated occurrences and that TRPH-contaminated soil is confined to a small area. The 2-4 ft interval at all boring locations is covered by approximately 6 in. of concrete, which was encountered between 1.5 and 2 ft.

No volatile organic compound were detected at concentrations above trigger criteria. The volatile organic compounds carbon disulfide, chloromethane, and methylene chloride were detected at concentrations near or below detection limits in several of the samples. Acetone was detected in all of the samples, but was detected in some of the associated method blanks, so results may be slightly biased high.

Two samples, AOC-A-B01-02 and AOC-A-B03-02, were visibly contaminated (both had TRPH exceeding trigger criteria, as noted above) and were analyzed for semivolatile organic compounds. Several compounds were detected at ppb levels. None of the detected concentrations exceed trigger criteria.

Four samples were analyzed for PCBs. PCB-1260 was detected in three of the four samples, but none of the detected concentrations is above trigger criteria.

Groundwater—Groundwater samples from the existing monitor wells were analyzed for aromatic volatile organics. Groundwater samples collected using the Geoprobe were analyzed for chlorinated pesticides. Summary analytical results are presented in Table 5.1-4 and 5.1-5. Figures 5.1-5 and 5.1-6 graphically present the results of aromatic VOCs and organochlorine pesticide concentrations in the groundwater.

In the groundwater samples from the monitor wells, several aromatic volatile organics were detected on the first GC column, but could not be confirmed on the second column, so their presence is uncertain. These results are flagged

Table 5.1-3
Analytical Results for Soil Samples—AOC-A

Location ID		AOC-A-A01		AOC-A-B01		AOC-A-B01		AOC-A-B02	
Sample ID		AOC-A-A01-01-01		AOC-A-B01-01-01		AOC-A-B01-02-01		AOC-A-B02-01-01	
Beg. Depth-End Depth (ft)		0-0.33		0-2		2-4		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	NA		< DL	(27.1)	10300 B	(149)	< DL	(27.6)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	NA		141	(1.36)	77.3	(7.5)	120	(1.38)
Carbon disulfide	[$8x10^6$]	NA		ND	(2.34)	17.5	(12.9)	ND	(2.38)
Chloromethane	[$5.4x10^5$]	NA		1.36 BJ	(2.2)	ND	(12.2)	ND	(2.24)
Methylene chloride	[$9.3x10^4$]	NA		ND	(2.36)	ND	(13.1)	ND	(2.41)
SW8270 - Semivolatile Organics (µg/g)									
Chrysene	[96]	NA		NA		0.0715 J	(0.119)	NA	
Fluoranthene	[3200]	NA		NA		ND	(0.0708)	NA	
Fluorene	[3200]	NA		NA		ND	(0.0551)	NA	
Phenanthrene	[NS]	NA		NA		4.75	(0.0792)	NA	
Pyrene	[2400]	NA		NA		0.211	(0.0849)	NA	
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		ND	(0.319)	NA	
SW8080 - Organochlorine Pesticides and PCBs (µg/kg)									
PCB-1260	[91]	ND	(2.05)	NA		NA		4.36	(1.87)
Location ID		AOC-A-B02		AOC-A-B03		AOC-A-B03		AOC-A-B04	
Sample ID		AOC-A-B02-02-01		AOC-A-B03-01-01		AOC-A-B03-02-01		AOC-A-B04-01-01	
Beg. Depth-End Depth (ft)		4-6		0-2		2-4		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	487	(34.1)	133 B	(27.3)	18900	(319)	37.6 B	(27.5)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	34	(3.38)	22.9 BJ	(26.7)	86.1	(7.87)	38.3	(1.39)
Carbon disulfide	[$8x10^6$]	ND	(5.84)	ND	(4.37)	13.1 J	(13.6)	ND	(2.4)
Chloromethane	[$5.4x10^5$]	ND	(5.49)	ND	(2.36)	6.01 BJ	(12.8)	ND	(2.26)
Methylene chloride	[$9.3x10^4$]	ND	(5.89)	ND	(1.5)	ND	(13.7)	ND	(2.42)
SW8270 - Semivolatile Organics (µg/g)									
Chrysene	[96]	NA		NA		ND	(0.127)	NA	
Fluoranthene	[3200]	NA		NA		0.0554 J	(0.0755)	NA	
Fluorene	[3200]	NA		NA		3.11	(0.0588)	NA	
Phenanthrene	[NS]	NA		NA		ND	(0.0846)	NA	
Pyrene	[2400]	NA		NA		0.265	(0.0906)	NA	
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		0.0877 J	(0.34)	NA	
SW8080 - Organochlorine Pesticides and PCBs (µg/kg)									
PCB-1260	[91]	NA		7.72	(1.86)	NA		NA	
Location ID		AOC-A-B04		AOC-A-B05		AOC-A-B05		AOC-A-B06	
Sample ID		AOC-A-B04-02-01		AOC-A-B05-01-01		AOC-A-B05-02-01		AOC-A-B06-01-01	
Beg. Depth-End Depth (ft)		4-6		0-2		2-4		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(33.5)	< DL	(26.6)	< DL	(31.2)	< DL	(26.8)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	105	(1.71)	14.8	(1.35)	10.7 B	(1.59)	383	(2.7)
Carbon disulfide	[$8x10^6$]	ND	(2.95)	ND	(2.33)	ND	(2.74)	ND	(2.33)
Chloromethane	[$5.4x10^5$]	ND	(2.77)	ND	(2.19)	ND	(2.58)	1.36 BJ	(2.19)
Methylene chloride	[$9.3x10^4$]	1.22 J	(2.97)	ND	(2.35)	ND	(2.77)	ND	(2.35)

Table 5.1-3 (Continued)

Location ID		AOC-A-B06		AOC-A-B07		AOC-A-B07		AOC-A-B08	
Sample ID		AOC-A-B06-02-01		AOC-A-B07-01-01		AOC-A-B07-02-01		AOC-A-B08-01-01	
Beg. Depth-End Depth (ft)		2-4		0-2		2-4		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	32.8 B	(31.2)	< DL	(26.6)	39.6 B	(31.4)	< DL	(26.9)
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	32.4	(1.59)	91.2	(1.34)	38.2	(1.57)	163	(1.37)
Carbon disulfide	[$8x10^6$]	ND	(2.74)	ND	(2.31)	ND	(2.71)	ND	(2.36)
Chloromethane	[$5.4x10^5$]	ND	(2.58)	ND	(2.18)	ND	(2.55)	1.28 BJ	(2.22)
Methylene chloride	[$9.3x10^4$]	ND	(2.77)	ND	(2.33)	ND	(2.73)	0.551 J	(2.39)
SW8080 - Organochlorine Pesticides and PCBs (µg/kg)									
PCB-1260	[91]	NA		3.63	(1.8)	NA		NA	
Location ID		AOC-A-B08							
Sample ID		AOC-A-B08-02-01							
Beg. Depth-End Depth (ft)		2-4							
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(29.8)						
SW8240 - Volatile Organics (µg/kg)									
Acetone	[$8x10^6$]	30.1	(1.51)						
Carbon disulfide	[$8x10^6$]	ND	(2.61)						
Chloromethane	[5.4x105]	ND	(2.45)						
Methylene chloride	[$9.3x10^4$]	ND	(2.63)						

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger critia are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.

Table 5.1-4
Analytical Results for Groundwater Samples—SWMU 118

Location ID		118-MW1601		118-MW1602		118-MW1603		118-MW1604	
Sample ID		118-MW1601-01-01		118-MW1602-01-01		118-MW1603-01-01		118-MW1604-01-01	
SW8020—Aromatic Volatile Organics (µg/L)									
1,2-Dichlorobenzene	[3150]	ND	(0.252)	0.0204 PBJ	(0.252)	ND	(0.252)	ND	(0.0784)
1,3-Dichlorobenzene	[NS]	0.0355 KJ	(0.078)	0.0579 PJ	(0.078)	ND	(0.078)	0.0372 J	(0.078)
1,4-Dichlorobenzene	[14.58]	0.385	(0.0711)	ND	(0.372)	0.116	(0.0711)	0.0421 KJ	(0.0711)
Benzene	[1.20]	0.386 B	(0.0832)	0.205 B	(0.0832)	0.206 B	(0.0832)	0.066 J	(0.0832)
Chlorobenzene	[700]	19	(0.0802)	4.37	(0.0802)	0.959	(0.0802)	0.24	(0.0802)
Ethyl benzene	[3500]	0.0608 KBJ	(0.0813)	0.0469 KBJ	(0.0813)	0.0729 KBJ	(0.0813)	0.0206 KJ	(0.0813)
Toluene	[7000]	0.0269 PJ	(0.0451)	0.0769 BJ	(0.0813)	0.15 B	(0.0813)	0.039 KJ	(0.0813)
Total xylenes	[$7x10^4$]	0.0248 PJ	(0.0609)	ND	(0.0609)	0.0284 PJ	(0.0609)	0.0401 KBJ	(0.0811)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
J = Analyte detected at concentration below the detection limit.
K = Peak did not meet method identification criteria. Analyte not detected on other GC column.
ND = Not detected.
NS = Not specified.
P = Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.

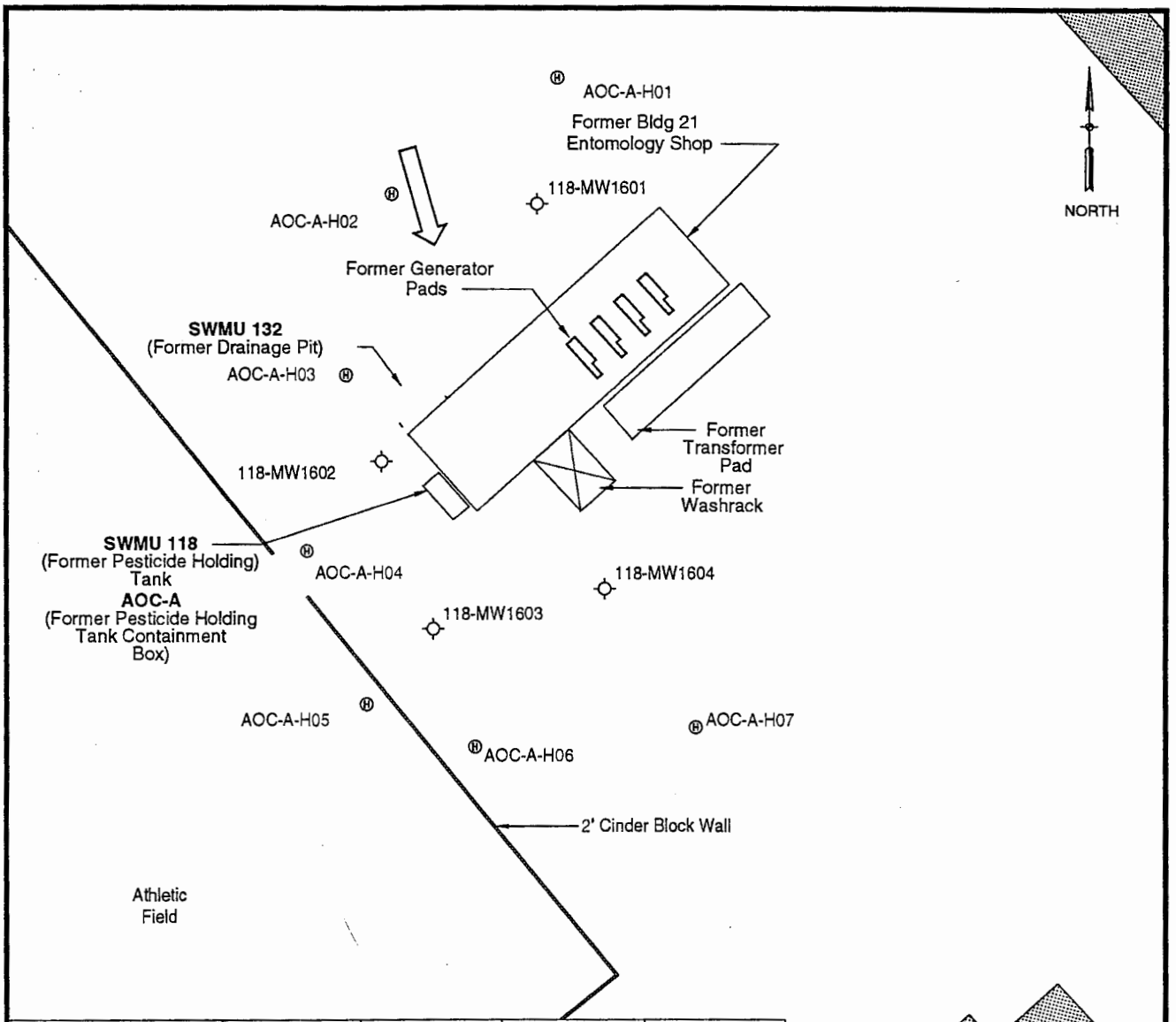
Table 5.1-5
Analytical Results for Groundwater Samples—AOC-A

Location ID		AOC-A-H01		AOC-A-H02		AOC-A-H03		AOC-A-H04	
Sample ID		AOC-A-H01-01-01		AOC-A-H02-01-01		AOC-A-H03-01-01		AOC-A-H04-01-01	
SW8080 - Organochlorine Pesticides and PCBs (µg/L)									
4,4'-DDE	[0.10]	ND	(0.0495)	ND	(0.0495)	0.036 PJ	(0.0495)	ND	(0.0107)
Dieldrin	[0.002]	0.118 P	(0.0566)	ND	(0.0566)	ND	(0.0566)	ND	(0.0122)
Endosulfan I	[NS]	ND	(0.0485)	0.032 KJ	(0.0354)	ND	(0.0485)	ND	(0.00761)
Endosulfan sulfate	[NS]	ND	(0.131)	ND	(0.141)	ND	(0.141)	ND	(0.0283)
Endrin	[10.5]	ND	(0.172)	ND	(0.172)	ND	(0.172)	ND	(0.0207)
Endrin aldehyde	[NS]	0.0292 J	(0.111)	0.262	(0.111)	0.056 PJ	(0.0919)	0.217	(0.0239)
Heptachlor epoxide	[0.004]	ND	(0.0242)	ND	(0.0242)	ND	(0.0242)	0.0201	(0.00717)
gamma-BHC	[0.027]	0.096	(0.0232)	0.0907	(0.0232)	0.116	(0.0232)	0.105	(0.005)
Location ID		AOC-A-H05		AOC-A-H06		AOC-A-H07			
Sample ID		AOC-A-H05-01-01		AOC-A-H06-01-01		AOC-A-H07-01-01			
SW8080 - Organochlorine Pesticides and PCBs (µg/L)									
4,4'-DDE	[0.10]	ND	(0.0495)	ND	(0.0495)	ND	(0.109)		
Dieldrin	[0.002]	ND	(0.0566)	ND	(0.0566)	ND	(0.124)		
Endosulfan I	[NS]	0.0276 KJ	(0.0354)	ND	(0.0485)	ND	(0.107)		
Endosulfan sulfate	[NS]	0.0476 KJ	(0.131)	ND	(0.131)	0.145 KJ	(0.289)		
Endrin	[10.5]	0.275	(0.172)	ND	(0.172)	ND	(0.378)		
Endrin aldehyde	[NS]	0.0326 PJ	(0.111)	ND	(0.111)	0.11 J	(0.244)		
Heptachlor epoxide	[0.004]	0.0125 KJ	(0.0333)	0.0315 KJ	(0.0333)	0.202 P	(0.0733)		
gamma-BHC	[0.027]	ND	(0.0384)	ND	(0.0384)	0.372	(0.0511)		

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than the trigger criteria are shaded.

( ) = Detection limit.
J = Estimated concentration, analyte detected at concentration below the detection limit.
K = Not confirmed, peak did not meet method identification criteria. Analyte not detected on other GC column.
ND = Not detected.
NS = Not specified.
P = Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.



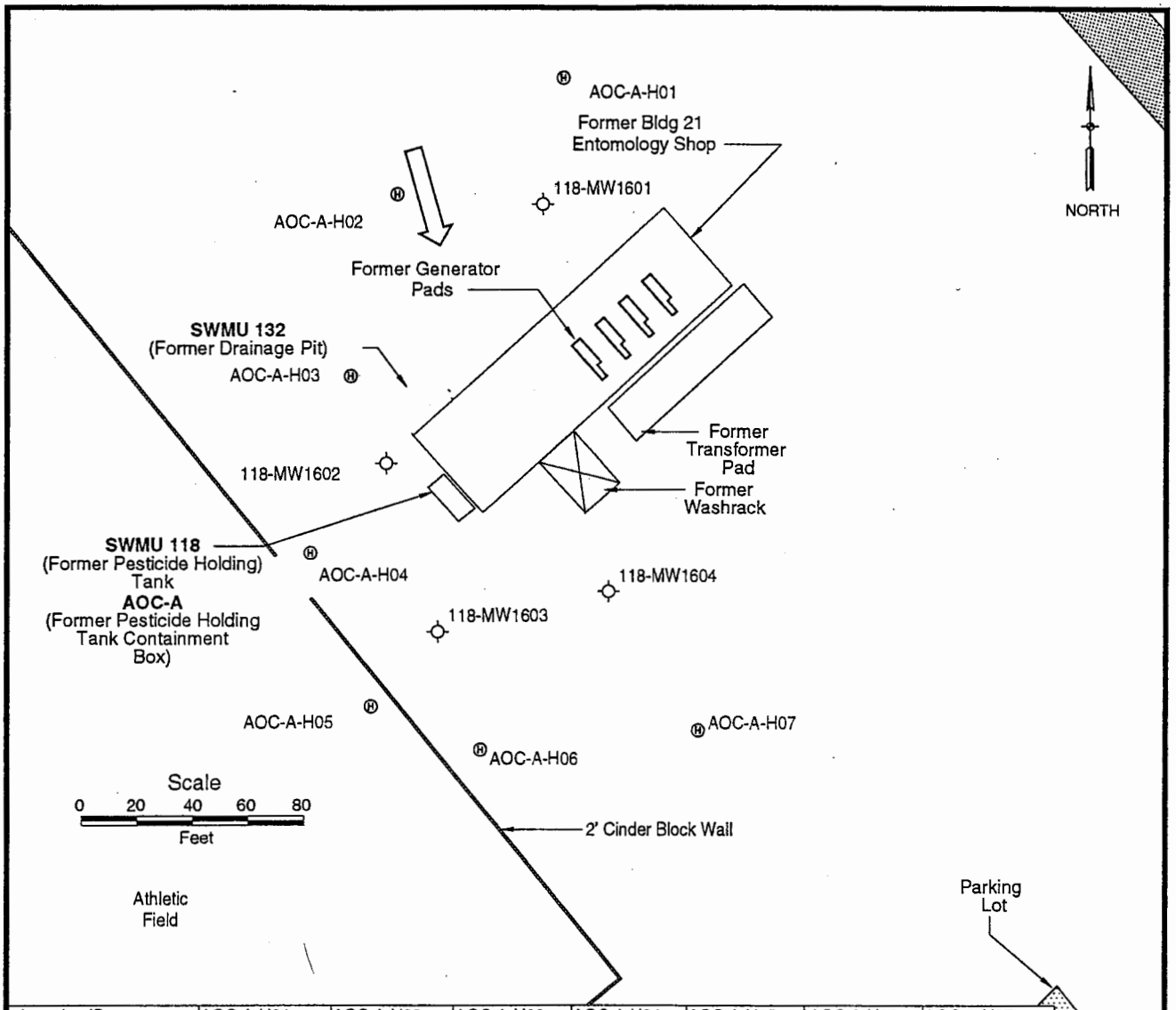
Location ID	118-MW1601	118-MW1602	118-MW1603	118-MW1604
SW-8020 - Aromatic Volatile Organics (µg/L)				
1,2-Dichlorobenzene	ND	0.0204 PBJ	ND	ND
1,3-Dichlorobenzene	0.0355 KJ	0.0579 PJ	ND	0.0372 J
1,4-Dichlorobenzene	0.385	ND	0.116	0.0421 KJ
Benzene	0.386 B	0.205 B	0.206 B	0.066 J
Chlorobenzene	19	4.37	0.959	0.24
Ethyl benzene	0.0608 KBJ	0.0469 KBJ	0.0729 KBJ	0.0206 KJ
Toluene	0.0269 PJ	0.0769 BJ	0.15 B	0.039 KJ
Total xylenes	0.0248 PJ	ND	0.0284 PJ	0.0401 KBJ

B =Analyte also detected in laboratory method blank.
J =Analyte detected at concentration below the detection limit (organics only).
K =Peak did not meet method identification criteria. Analyte not detected on other GC column.
ND=Not detected.
NS=Not specified.
P =Analytes not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.

Scale
0 20 40 60 80
Feet

10705-G1

Figure 5.1-5. Occurrences of Aromatic VOCs in Groundwater at SWMU 118



Location ID	AOC-A-H01	AOC-A-H02	AOC-A-H03	AOC-A-H04	AOC-A-H05	AOC-A-H06	AOC-A-H07
SW808 - Organochlorine Pesticides and PCBs (µg/L)							
4,4'-DDE	ND	ND	0.036 PJ	ND	ND	ND	ND
Dieldrin	0.118 P	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	0.032 KJ	ND	ND	0.0276 KJ	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	0.0476 KJ	ND	0.145 KJ
Endrin	ND	ND	ND	ND	0.275	ND	ND
Endrin aldehyde	0.0292 J	0.262	0.056 PJ	0.217	0.0326 PJ	ND	0.11 J
Heptachlor epoxide	ND	ND	ND	0.0201	0.0125 KJ	0.0315 KJ	0.202 P
gamma-BHC	0.096	0.0907	0.116	0.105	ND	ND	0.372

J =Analyte detected at concentration below the detection limit (organics only).
K =Peak did not meet method identification criteria. Analyte not detected on other GC column.
ND=Not detected.
NS=Not specified.
P =Analyte not confirmed. Results from primary and secondary GC columns differ by more than a factor of 3.

10705-G

Figure 5.1-6. Occurrences of Organochlorine Pesticides in the Groundwater at AOC-A

with "K" or "P." Other compounds were detected at similar concentrations in associated method blanks, so their presence in the samples is uncertain. These results are flagged with a "B". The only aromatic volatile organic compounds with confirmed detections are 1,3- and 1,4-dichlorobenzene, benzene, chlorobenzene, and toluene. One or more of these compounds was detected in each of the groundwater samples, and concentrations detected in the upgradient well (118-MW1601) are higher than those detected in the downgradient wells; however, all concentrations are below trigger criteria.

5.1.3 Risk Assessment Results

A quantitative risk assessment conducted for IRP Site 16 (SWMUs 118, 132, and AOC-A) was updated using new data collected during this investigation to assess the impacts of site COPCs on human health and the environment. COPCs, exposure pathways, and receptors were identified as described in Appendix C. The risk assessment methodology followed is presented in the *RA Report* (Radian, 1992b). COPCs selected for the site are presented in Table C.1-3. Risked-based screening results are presented in Attachment 5 of Appendix C.

The site is a gravel covered parking lot across the street from a soccer field. Recreational users of the soccer field could be exposed through inhalation of volatiles and through inhalation of contaminants entrained in fugitive dust generated through the gravel cover at the site. Since the site is gravel covered, dermal contact with and incidental ingestion of soil is expected to be minimal, but exposure by these pathways to children who may play in the gravel during soccer games was quantified. On-base residents, approximately 0.1 miles from the site, could be exposed through air dispersed volatiles or dust-entrained contaminants from the site. Potential future construction workers could be exposed by the inhalation pathways (volatiles and fugitive dust), and by dermal contact and incidental ingestion of surface or subsurface soil contaminants if construction were to take place on the site in the future. These were the exposure pathways quantified in the risk assessment.

Risk values for all scenarios evaluated were below the range considered unacceptable. For the recreational child scenario, the present and future average and reasonable maximum hazard indices were 0.01 and 0.08 respctively. Present and future residential carcinogenic risks were 4E-10 and 3E-09; the average hazard index was 2E-13 and the reasonable maximum hazard index was 6E-13 for both adults and children. Potential future construction worker carcinogenic risks were 3E-08 and 1E-07 for average and reasonable maximum exposures, respectively. The non-carcinogenic hazard index for potential future construction workers were 3E-02 and 2E-01 for the average and reasonable maximum exposure scenarios. Tables in Attachment 3 of Appendix C present the risks and hazard indices by chemical, exposure pathway, and scenario total for each scenario.

An ecological quotient (EQ) of 0.05 for black-tailed jackrabbits at the site indicates low probability of any adverse environmental effects from the COPCs at the site. Although no vegetation is currently on site, a quantitative environmental evaluation was conducted on the assumption that the site would be vegetated in the future, and that exposure to site contaminants would be possible through plant uptake and subsequent ingestion by animals, as well as by soil ingestion. Methodology for the EQ method is presented in Appendix K of the *RA Report* (Radian, 1992b); calculated plant and jack-rabbit uptake and EQs are presented in Tables C.2-3 and C.2-4 of Appendix C.

5.1.4 Conclusions

TRPH and PCBs were detected in soils at

concentrations exceeding trigger criteria, PCBs and heptachlor epoxide in SWMU 132, and TRPH beneath the foundation for former Building 21 (i.e., AOC-A). No pesticides were detected and confirmed at concentrations exceeding trigger criteria. Pesticides and chlorinated solvents were detected in groundwater; however, all detected concentrations are below trigger criteria. Both previous and updated risk assessment results indicate that neither soil nor groundwater contamination at the site pose a risk to human health or the environment.

5.1.5 Recommendations

The nature and extent of pesticide and VOC contamination was delineated during the Phase I Table 1 RFI and Phase I Table 2 RFI. Therefore, CNFA was recommended for NFA in the 1994 Draft Final Phase I Table 2 RFI Report: the condition of NFA was remediation of TRPH contaminated soil. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Approximately 107 cubic yards of contaminated soil were excavated and disposed in December 1996 as part of Holloman AFB's Phase II Basewide POL project. TPH concentrations in confirmation samples ranged from not detected to 370 mg/kg. PCBs, the only contaminants above trigger criteria, were not detected in any closure sample. Neither were pesticides. Further details will be provided in the *Addendum to the Final Closure Report for Phase II Remediation of (POL) Contaminated Sites and O/WS and WOT Removals, Holloman Air Force Base, New Mexico* to be submitted in September 1997. Long-term groundwater monitoring of SWMUs 118, 132, and AOC-A will begin in September 1997 as part of Holloman AFB's basewide monitoring program. Groundwater samples will be analyzed for VOCs and pesticides. Since the source of these chemicals has been removed via excavation, groundwater concentrations are expected to decrease through time.

5.2 SWMU 129—Building 1191 and 1192 Spill Tanks SWMU 178—Building 1191 and 1192 Fuel Runoff Pits

SWMU 129 is on Table 2 of Holloman AFB's HSWA permit. SWMU 178 is on Table 1 of the HSWA permit, and was initially investigated in 1992. The results of the Phase I investigation are presented in the *RI Report* (Radian, 1992). The SWMUs were in operation from 1952 to1964. The scope of the Phase I investigation was not sufficient to fully characterize the site since no soil samples were collected and groundwater flowed in a different direction than anticipated, so further investigation was recommended.

For this investigation, an electromagnetic (EM) survey and trenching were used to locate three sumps south of Building 1192. A similar structure was expected to be found south of Building 1191, however, it was not located. Existing information indicates that this tank was removed in 1986. Soil borings were drilled adjacent to each of the sumps, in four locations around Building 1112, the former aniline storage area, and in five locations in the former first acid storage area. Hand auger samples were collected along the former drainage trenches south of Buildings 1191 and 1192, and from the drains at the former first acid storage area (Figure 5.2-1). Monitor wells were installed downgradient (west) of each of the suspected areas.

Analytical results indicate the presence of elevated levels of TRPH in two locations, and elevated levels of lead in one of the drains at the former first acid storage area. The elevated lead is probably attributable to the metal drains themselves. No other constituents were detected at concentrations exceeding trigger criteria. Risk assessment results indicate that the site does not pose an unacceptable risk to human health or the environment.

CNFA is recommended; the condition of NFA is remedition of TRPH-contaminated soil.

5.2.1 SWMU Description

Physical Features: As shown in Figure 5.2-1, SWMUs 129 and 178 are located immediately south of the former oxidizer and propellant storage areas (Buildings 1192 and 1191, respectively). Since their use as storage areas, Buildings 1191 and 1192 have been renovated and are currently used as horse stables. Outdoor corals are now located to the south of each building and partially overlie SWMU 178. The sumps (SWMU 129), located near the southern edge of the corals, are covered with dirt and are not visible from the surface.

Unit Description: The sumps are constructed of reinforced concrete with an approximate diameter of 6 ft and depth of 9 ft. The sumps appear to have been filled with gravel and are open at the bottom. The sumps received spilled fuels and floor washings from storage and mixing areas in Buildings 1191 and 1192. If spilled, the fuels were transported under gravity flow to the sumps via concrete and metal troughs, and were transferred from the troughs to the sumps by a clay pipe at the end of each trough. No tank was found at Building 1191, but historical information indicates that the tank and its contents (450 gal. of JPX) were removed in 1986. (Civil engineering work order no. 93506, dated 22 July 1986).

Waste Description: The fuels handled by this area included unsymmetrical dimethylhydrazine (UDMH), JP-4, inhibited red fuming nitric acid (IRFNA), inhibited white fuming nitric acid (IWFNA), and aniline.

Release History: Previous investigations have occurred at the site (IRP Site 36), including a RI and a risk assessment in 1992 (RI Report and RA Report, Radian, 1992). Results of soil

sampling 1978 and 1979 indicated that UDMH was not present in former spill sites (letter dated 28, June 1979). Results of soil sampling in June 1981 indicated that no significant levels of waste fuels were present in the soils (letter dated 15, December 1981). Five monitoring wells were installed for the previous investigation. This study indicated the presence of nitrate-nitrite and lead concentrations above background levels. Also, petroleum hydrocarbons and some VOCs were detected in all wells. Trichloroethene was also detected in the well next to the former first acid storage area. The risk assessment indicated that the risk to human health and the environment from groundwater contamination was acceptable.

5.2.2 SWMU Investigation and Results

The initial activity performed at the SWMUs was an EM survey conducted south of both Buildings 1191 and 1192, where the tanks were suspected to be located. EM survey results were inconclusive due to EM signal interference from the metal corral fences. The EM survey instrument was instead used as a metal detector to locate potential tanks locations. These locations and several other locations found by following the pattern of the drainage trenches were excavated using a backhoe. Three tanks (shown on Figure 5.2-1) were found south of Building 1192. The tanks actually proved to be open-bottomed sumps filled with gravel. No tanks were found south of Building 1191, but historical information about the site indicates that the tank south of Building 1191 was removed in 1986.

Soil borings were drilled adjacent to each of the three sumps. In addition, four more soil borings were drilled at Building 1112, the former aniline storage area; and five soil borings were drilled in the former first acid storage area. All borings were sampled every 2 ft to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided Appendix D. For borings located adjacent to the sumps, samples for chemical analysis were collected from the surface interval (0-2 ft), the interval that corresponded with the bottom of the sumps (8-10 ft), and the interval intersecting groundwater (28-30 ft). No visibly contaminated soil was noted. Sixteen hand auger samples were collected along the drainage trenches south of Buildings 1191 and 1192, four hand auger samples were collected from the drains in the former first acid storage area, and three hand auger samples were collected from a background location. Monitor wells were installed downgradient (west) of Buildings 1191, 1192, 1112, and the former first acid storage area. One round of groundwater samples was collected from the wells. A sample for geotechnical analysis was collected from one of the borings. Geotechnical results can be found in Appendix E.

Geology and Hydrogeology

The subsurface conditions at SWMUs 129 and 178 were defined by direct sampling and observation of drilling operations. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand, silty sand, and sandy clay. Groundwater occurs in sand at approximately 26 ft bgl. Groundwater in this part of the Base generally flows to the west.

Analytical Results

Soil—All affected area soil samples were analyzed for TRPH, semivolatile organic compounds, and lead. Samples from the soil borings adjacent to the sumps and surface samples from the associated drainage troughs were also analyzed for volatile organic compounds. Samples from the soil borings and drain samples from the first acid storage area, and the three background samples were analyzed for pH. The summary analytical results are presented in Table 5.2-1. Figures 5.2-2 and 5.2-3 graphically present the analytical results for TRPH and lead concentrations in soil, respectively.

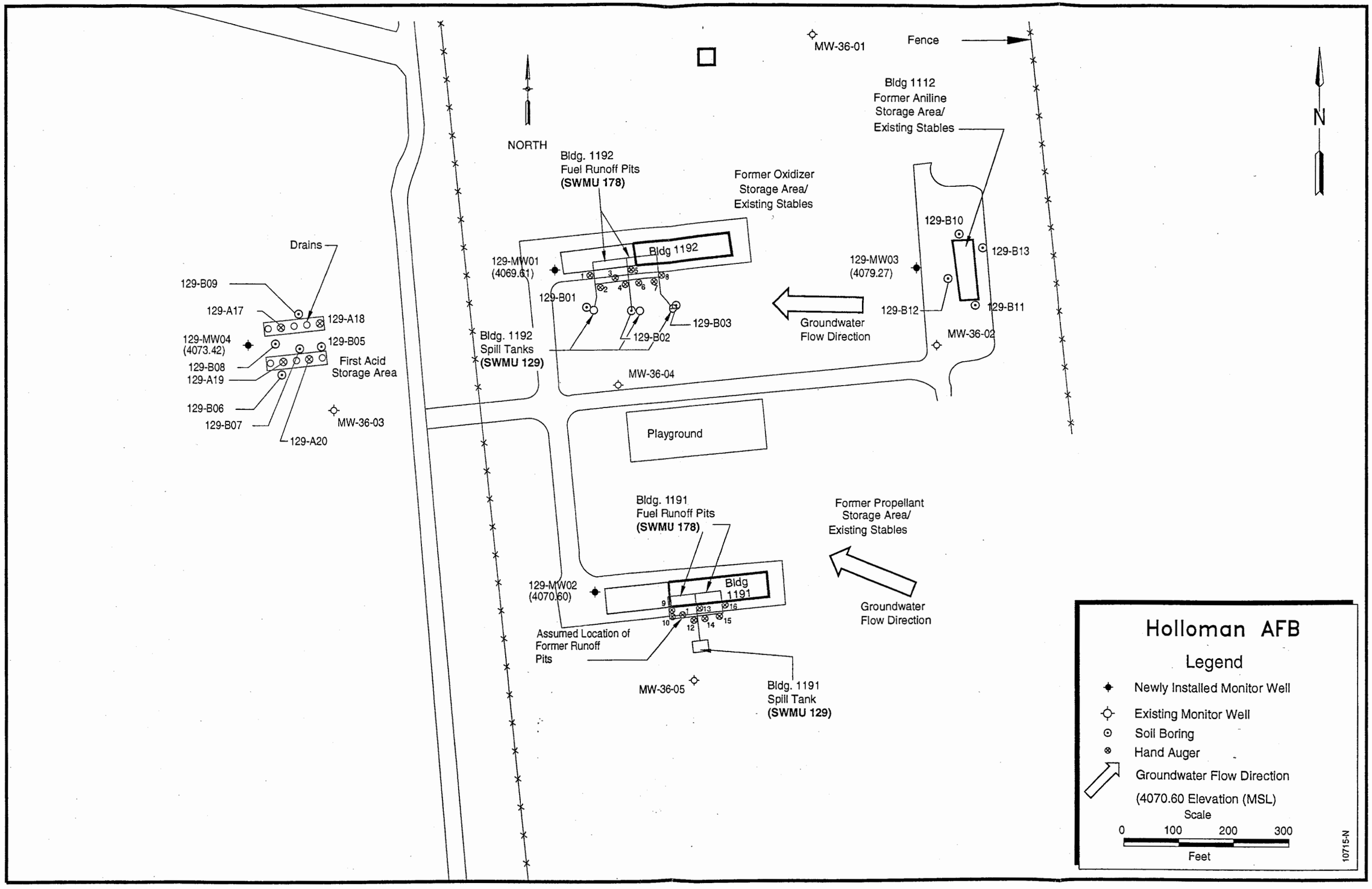


Figure 5.2-1. Features and Sampling Locations at SWMUs 129 and 178

Table 5.2-1
Analytical Results for Soil Samples—SWMU 129

Location ID		129-A01		129-A02		129-A03		129-A04	
Sample ID		129-A01-01-01		129-A02-01-01		129-A03-01-01		129-A04-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	304	(26.3)	1270	(27.8)	65.4	(29.6)	125	(28.2)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	ND	(1.34)	9.3 B	(1.41)	ND	(1.50)	ND	(1.43)
Benzene	[$2.4x10^4$]	ND	(1.54)	ND	(1.62)	ND	(1.72)	ND	(1.64)
Ethyl benzene	[$8x10^6$]	ND	(1.48)	ND	(1.55)	ND	(1.65)	ND	(1.58)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(1.36)	ND	(1.43)	ND	(1.52)	ND	(1.45)
Methylene chloride	[$9.3x10^4$]	ND	(2.33)	ND	(2.45)	ND	(2.61)	0.856 BJ	(2.49)
Toluene	[$1.6x10^7$]	ND	(1.52)	ND	(1.60)	1.29 J	(1.70)	1.6 J	(1.62)
Trichloroethene	[NS]	ND	(4.33)	ND	(4.55)	ND	(4.85)	ND	(4.63)
Xylene (total)	[$1.6x10^8$]	ND	(3.25)	ND	(3.41)	ND	(3.64)	ND	(3.47)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0150)	ND	(0.0160)	ND	(0.0169)	ND	(0.0162)
Aniline	[123]	ND	(0.0310)	ND	(0.0329)	ND	(0.0348)	ND	(0.0334)
Anthracene	[$2.4x10^4$]	ND	(0.0204)	ND	(0.0216)	ND	(0.0229)	ND	(0.0220)
Benzo(a)anthracene	[.96]	0.0169 J	(0.0191)	ND	(0.0203)	ND	(0.0215)	ND	(0.0206)
Benzo(a)pyrene	[.096]	0.021 J	(0.0241)	ND	(0.0256)	ND	(0.0271)	ND	(0.0260)
Benzo(b)fluoranthene	[.96]	0.052 F	(0.0244)	ND	(0.0259)	ND	(0.0274)	ND	(0.0263)
Benzo(g,h,i)perylene	[NS]	ND	(0.0235)	ND	(0.0249)	ND	(0.0264)	ND	(0.0253)
Benzo(k)fluoranthene	[9.59]	0.052 F	(0.0306)	ND	(0.0325)	ND	(0.0345)	ND	(0.0330)
Butylbenzylphthalate	[$1.6x10^4$]	ND	(0.0614)	ND	(0.0652)	ND	(0.0690)	ND	(0.0661)
Chrysene	[96]	0.0192 J	(0.0253)	ND	(0.0268)	ND	(0.0284)	ND	(0.0272)
Dibutylphthalate	[8000]	ND	(0.0202)	ND	(0.0214)	ND	(0.0227)	ND	(0.0217)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0517)	ND	(0.0549)	ND	(0.0581)	ND	(0.0557)
Fluoranthene	[3200]	0.0303	(0.0217)	ND	(0.0231)	ND	(0.0244)	ND	(0.0234)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0184)	ND	(0.0196)	ND	(0.0207)	ND	(0.0198)
Phenanthrene	[NS]	0.0163 J	(0.0282)	ND	(0.0300)	ND	(0.0317)	ND	(0.0304)
Pyrene	[2400]	0.0317	(0.0155)	ND	(0.0164)	ND	(0.0174)	ND	(0.0167)
SW7421 - Lead (mg/kg)									
Lead	[12,3,500]	7.19	(0.237)	6.74	(0.282)	4.87	(0.267)	15.4	(0.263)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-A05		129-A06		129-A07		129-A08	
Sample ID		129-A05-01-01		129-A06-01-01		129-A07-01-01		129-A08-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(27.6)	79.8	(27.0)	92.5	(28.2)	< DL	(26.5)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	3.43 BJ	(27.10)	23.1 BJ	(26.40)	3.19 BJ	(27.70)	4.17 BJ	(25.90)
Benzene	[$2.4x10^4$]	ND	(1.66)	0.794 J	(1.62)	ND	(1.70)	ND	(1.59)
Ethyl benzene	[$8x10^6$]	ND	(1.75)	1.29 J	(1.71)	ND	(1.79)	ND	(1.68)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(3.60)	ND	(3.51)	ND	(3.68)	ND	(3.45)
Methylene chloride	[$9.3x10^4$]	ND	(1.52)	ND	(1.48)	1.41 J	(1.55)	ND	(1.45)
Toluene	[$1.6x10^7$]	1.56 J	(1.64)	4.11	(1.60)	1.73	(1.68)	0.833 J	(1.57)
Trichloroethene	[NS]	ND	(3.06)	ND	(2.98)	ND	(3.13)	ND	(2.93)
Xylene (total)	[$1.6x10^8$]	ND	(3.56)	1.43 J	(3.47)	0.946 J	(3.64)	ND	(3.40)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0159)	ND	(0.0156)	ND	(0.0163)	ND	(0.0151)
Aniline	[123]	ND	(0.0327)	ND	(0.0321)	ND	(0.0336)	ND	(0.0311)
Anthracene	[$2.4x10^4$]	ND	(0.0215)	ND	(0.0211)	ND	(0.0221)	ND	(0.0205)
Benzo(a)anthracene	[.96]	0.0136 J	(0.0201)	ND	(0.0198)	0.0317	(0.0207)	ND	(0.0192)
Benzo(a)pyrene	[.096]	ND	(0.0254)	ND	(0.0250)	ND	(0.0262)	ND	(0.0242)
Benzo(b)fluoranthene	[.96]	ND	(0.0257)	ND	(0.0253)	ND	(0.0264)	ND	(0.0245)
Benzo(g,h,i)perylene	[NS]	ND	(0.0247)	ND	(0.0243)	ND	(0.0255)	ND	(0.0236)
Benzo(k)fluoranthene	[9.59]	ND	(0.0323)	ND	(0.0318)	ND	(0.0332)	ND	(0.0308)
Butylbenzylphthalate	[$1.6x10^4$]	ND	(0.0647)	ND	(0.0636)	ND	(0.0665)	ND	(0.0617)
Chrysene	[96]	0.0262 J	(0.0266)	ND	(0.0262)	0.0326	(0.0274)	ND	(0.0254)
Dibutylphthalate	[8000]	ND	(0.0213)	ND	(0.0209)	ND	(0.0219)	ND	(0.0203)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0544)	ND	(0.0536)	ND	(0.0560)	ND	(0.0519)
Fluoranthene	[3200]	0.0142 J	(0.0229)	ND	(0.0225)	0.0602	(0.0236)	ND	(0.0218)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0194)	ND	(0.0191)	ND	(0.0200)	ND	(0.0185)
Phenanthrene	[NS]	ND	(0.0297)	ND	(0.0293)	0.0317	(0.0306)	ND	(0.0284)
Pyrene	[2400]	0.0115 J	(0.0163)	ND	(0.0160)	0.0579	(0.0168)	ND	(0.0155)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	10.9	(0.274)	17.2	(0.256)	6.14	(0.260)	6.01	(0.269)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-A09		129-A10		129-A11		129-A12	
Sample ID		129-A09-01-01		129-A10-01-01		129-A11-01-01		129-A12-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(28.6)	83.6	(30.5)	< DL	(32.9)	< DL	(32.3)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	3.1 BJ	(27.90)	3.67 BJ	(29.70)	4.04 BJ	(32.20)	4.95 BJ	(31.60)
Benzene	[$2.4x10^4$]	ND	(1.71)	ND	(1.82)	ND	(1.97)	ND	(1.94)
Ethyl benzene	[$8x10^6$]	ND	(1.80)	ND	(1.92)	ND	(2.08)	ND	(2.04)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(3.71)	ND	(3.95)	ND	(4.28)	ND	(4.20)
Methylene chloride	[$9.3x10^4$]	ND	(1.57)	ND	(1.67)	ND	(1.80)	ND	(1.77)
Toluene	[$1.6x10^7$]	1.66 J	(1.69)	1.9	(1.80)	2.24	(1.95)	1.48 J	(1.91)
Trichloroethene	[NS]	ND	(3.15)	ND	(3.36)	ND	(3.64)	ND	(3.57)
Xylene (total)	[$1.6x10^8$]	ND	(3.66)	ND	(3.90)	ND	(4.22)	ND	(4.15)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0165)	ND	(0.0175)	ND	(0.0188)	ND	(0.0187)
Aniline	[123]	ND	(0.0340)	ND	(0.0360)	ND	(0.0388)	ND	(0.0385)
Anthracene	[$2.4x10^4$]	ND	(0.0224)	ND	(0.0237)	ND	(0.0255)	ND	(0.0253)
Benzo(a)anthracene	[.96]	ND	(0.0210)	ND	(0.0222)	ND	(0.0239)	ND	(0.0237)
Benzo(a)pyrene	[.096]	ND	(0.0265)	ND	(0.0281)	ND	(0.0302)	ND	(0.0299)
Benzo(b)fluoranthene	[.96]	ND	(0.0267)	ND	(0.0283)	ND	(0.0305)	ND	(0.0302)
Benzo(g,h,i)perylene	[NS]	ND	(0.0257)	ND	(0.0273)	ND	(0.0294)	ND	(0.0291)
Benzo(k)fluoranthene	[9.59]	ND	(0.0336)	ND	(0.0356)	ND	(0.0384)	ND	(0.0380)
Butylbenzylphthalate	[$1.6x10^4$]	ND	(0.0673)	ND	(0.0713)	ND	(0.0768)	ND	(0.0761)
Chrysene	[96]	ND	(0.0277)	ND	(0.0294)	ND	(0.0316)	ND	(0.0314)
Dibutylphthalate	[8000]	ND	(0.0221)	ND	(0.0235)	ND	(0.0253)	ND	(0.0250)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0567)	ND	(0.0601)	ND	(0.0647)	ND	(0.0641)
Fluoranthene	[3200]	ND	(0.0238)	ND	(0.0253)	ND	(0.0272)	ND	(0.0270)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0202)	ND	(0.0214)	ND	(0.0231)	ND	(0.0228)
Phenanthrene	[NS]	ND	(0.0310)	ND	(0.0328)	ND	(0.0353)	ND	(0.0350)
Pyrene	[2400]	ND	(0.0170)	ND	(0.0180)	ND	(0.0194)	ND	(0.0192)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	8.73	(0.348)	3.45	(0.265)	2.67 B	(0.456)	2.29 B	(0.395)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-A13		129-A14		129-A15		129-A16	
Sample ID		129-A13-01-01		129-A14-01-01		129-A15-01-01		129-A16-01-01	
Beg. Depth-End Depth (ft)		0-2		0-2		0-2		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	91.9	(30.0)	87.5	(30.7)	114	(30.8)	54.3	(28.7)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	5.91 BJ	(29.50)	57.4 B	(30.10)	49.9 B	(30.30)	4.15 BJ	(28.30)
Benzene	[$2.4x10^4$]	ND	(1.81)	ND	(1.85)	ND	(1.86)	ND	(1.74)
Ethyl benzene	[$8x10^6$]	ND	(1.91)	ND	(1.94)	ND	(1.96)	ND	(1.83)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(3.92)	2.04 J	(4.00)	ND	(4.02)	ND	(3.77)
Methylene chloride	[$9.3x10^4$]	ND	(1.65)	ND	(1.69)	ND	(1.70)	ND	(1.59)
Toluene	[$1.6x10^7$]	ND	(1.79)	1.77 J	(1.82)	0.824 J	(1.83)	ND	(1.72)
Trichloroethene	[NS]	ND	(3.33)	ND	(3.40)	ND	(3.42)	ND	(3.20)
Xylene (total)	[$1.6x10^8$]	ND	(3.87)	ND	(3.95)	ND	(3.97)	ND	(3.72)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0173)	ND	(0.0177)	ND	(0.0178)	ND	(0.0199)
Aniline	[123]	ND	(0.0356)	0.0599	(0.0364)	0.251	(0.0366)	ND	(0.0241)
Anthracene	[$2.4x10^4$]	ND	(0.0234)	ND	(0.0239)	ND	(0.0241)	ND	(0.0295)
Benzo(a)anthracene	[.96]	ND	(0.0220)	ND	(0.0224)	0.0152 J	(0.0226)	ND	(0.0230)
Benzo(a)pyrene	[.096]	ND	(0.0278)	ND	(0.0283)	0.0218 J	(0.0285)	ND	(0.0307)
Benzo(b)fluoranthene	[.96]	ND	(0.0280)	ND	(0.0286)	0.0557 F	(0.0288)	ND	(0.0406)
Benzo(g,h,i)perylene	[NS]	ND	(0.0270)	ND	(0.0276)	ND	(0.0277)	ND	(0.0436)
Benzo(k)fluoranthene	[9.59]	ND	(0.0352)	ND	(0.0360)	0.0557 F	(0.0362)	ND	(0.0425)
Butylbenzylphthalate	[$1.6x10^4$]	ND	(0.0706)	ND	(0.0721)	ND	(0.0725)	ND	(0.0704)
Chrysene	[96]	ND	(0.0291)	ND	(0.0297)	0.0152 J	(0.0299)	ND	(0.0383)
Dibutylphthalate	[8000]	ND	(0.0232)	ND	(0.0237)	ND	(0.0239)	ND	(0.0191)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0594)	ND	(0.0607)	ND	(0.0611)	ND	(0.1030)
Fluoranthene	[3200]	ND	(0.0250)	ND	(0.0255)	ND	(0.0257)	ND	(0.0228)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0212)	ND	(0.0216)	ND	(0.0218)	ND	(0.0341)
Phenanthrene	[NS]	ND	(0.0325)	ND	(0.0331)	ND	(0.0334)	ND	(0.0255)
Pyrene	[2400]	ND	(0.0178)	ND	(0.0182)	ND	(0.0183)	ND	(0.0273)
SW8270 - Semivolatile Organics TICs (μg/g)									
Junipene	[NS]	0.4	(NS)	NA		NA		NA	
SW7421 - Lead (mg/kg)									
Lead	[12,3,500]	4.9 B	(0.403)	5.29	(0.422)	6.36 B	(0.361)	4.64	(0.380)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-A17		129-A18		129-A19		129-A20	
Sample ID		129-A17-01-01		129-A18-01-01		129-A19-01-01		129-A20-01-01	
Beg. Depth-End Depth (ft)		0-1		0-1		0-1		0-1	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	120	(32.5)	1430	(28.0)	242	(28.3)	340	(29.6)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0223)	0.0165 J	(0.0193)	0.0187 J	(0.0195)	ND	(0.0204)
Aniline	[123]	ND	(0.0271)	ND	(0.0234)	ND	(0.0237)	ND	(0.0247)
Anthracene	[2.4×10^{4}]	0.0159 J	(0.0331)	0.00984 J	(0.0286)	0.00944 J	(0.0290)	ND	(0.0302)
Benzo(a)anthracene	[.96]	0.122	(0.0258)	0.0198 J	(0.0223)	0.047	(0.0226)	0.0143 J	(0.0236)
Benzo(a)pyrene	[.096]	0.123	(0.0345)	0.0323	(0.0298)	0.0452	(0.0302)	0.0246 J	(0.0315)
Benzo(b)fluoranthene	[.96]	0.267 F	(0.0455)	0.101 F	(0.0394)	0.0903 F	(0.0399)	0.0436 F	(0.0416)
Benzo(g,h,i)perylene	[NS]	0.0778	(0.0490)	ND	(0.0423)	0.0504	(0.0429)	0.033 J	(0.0448)
Benzo(k)fluoranthene	[9.59]	0.267 F	(0.0477)	0.101 F	(0.0412)	0.0903 F	(0.0418)	0.0436 F	(0.0436)
Butylbenzylphthalate	[1.6×10^{4}]	0.0683 J	(0.0790)	ND	(0.0683)	ND	(0.0692)	ND	(0.0723)
Chrysene	[96]	0.221	(0.0430)	0.0449	(0.0371)	0.0655	(0.0376)	0.0185 J	(0.0393)
Dibutylphthalate	[8000]	ND	(0.0214)	0.0229	(0.0185)	0.187	(0.0188)	ND	(0.0196)
bis(2-Ethylhexyl)phthalate	[50]	0.266	(0.1150)	0.105	(0.0995)	0.0892 J	(0.1010)	0.471	(0.1050)
Fluoranthene	[3200]	0.234	(0.0256)	0.075	(0.0221)	0.0877	(0.0224)	0.0128 J	(0.0234)
Indeno(1,2,3-cd)pyrene	[0.96]	0.064	(0.0383)	ND	(0.0331)	0.0222 J	(0.0335)	ND	(0.0350)
Phenanthrene	[NS]	0.0838	(0.0286)	0.0363	(0.0247)	0.0406	(0.0251)	ND	(0.0262)
Pyrene	[2400]	0.23	(0.0307)	0.0564	(0.0265)	0.0862	(0.0269)	0.0166 J	(0.0280)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	196 S	(6.71)	94.4 S	(2.78)	192 S	(5.27)	1480 S	(74.10)
SW9045 - Soil pH (pH units)									
pH		7.98		7.99		8.4		8.16	

Table 5.2-1 (Continued)

Location ID		129-A21	129-A22	129-A23	129-B01	
Sample ID		129-A21-01-01	129-A22-01-01	129-A23-01-01	129-B01-01-01	
Beg. Depth-End Depth (ft)		0-1	0-1	0-1	0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)						
Hydrocarbons	[1000]	NA	NA	NA	115	(28.6)
SW8240 - Volatile Organics (μg/kg)						
Acetone	[8x10 ^{6}]	NA	NA	NA	2.77 J	(28.00)
Benzene	[2.4x10 ^{4}]	NA	NA	NA	ND	(1.72)
Ethyl benzene	[8x10 ^{6}]	NA	NA	NA	ND	(1.81)
Methyl ethyl ketone	[4.8x10 ^{7}]	NA	NA	NA	ND	(3.73)
Methylene cloride	[9.3x10 ^{4}]	NA	NA	NA	ND	(1.57)
Toluene	[1.6x10 ^{7}]	NA	NA	NA	5.86	(1.70)
Trichloroethene	[NS]	NA	NA	NA	ND	(3.17)
Xylene (total)	[1.6x10 ^{4}]	NA	NA	NA	ND	(3.68)
SW8270 - Semivolatile Organics (μg/g)						
Acetophenone	[8000]	NA	NA	NA	ND	(0.0165)
Aniline	[123]	NA	NA	NA	ND	(0.0340)
Anthracene	[2.4x10 ^{4}]	NA	NA	NA	ND	(0.0224)
Benzo(a)anthracene	[.96]	NA	NA	NA	0.0179 J	(0.0210)
Benzo(a)pyrene	[.096]	NA	NA	NA	ND	(0.0265)
Benzo(b)fluoranthene	[.96]	NA	NA	NA	ND	(0.0268)
Benzo(g,h,i)perylene	[NS]	NA	NA	NA	ND	(0.0258)
Benzo(k)fluoranthene	[9.59]	NA	NA	NA	ND	(0.0337)
Butylbenzylphthalate	[1.6x10 ^{4}]	NA	NA	NA	ND	(0.0674)
Chrysene	[96]	NA	NA	NA	0.0235 J	(0.0278)
Dibutylphthalate	[8000]	NA	NA	NA	ND	(0.0222)
bis(2-Ethylhexyl)phthalate	[50]	NA	NA	NA	ND	(0.0568)
Fluoranthene	[3200]	NA	NA	NA	0.0388	(0.0239)
Indeno(1,2,3-cd)pyrene	[0.96]	NA	NA	NA	ND	(0.0202)
Phenanthrene	[NS]	NA	NA	NA	0.0182 J	(0.0310)
Pyrene	[2400]	NA	NA	NA	0.0309	(0.0170)
SW7421 - Lead (mg/kg)						
Lead	[12.3,500]	NA	NA	NA	13.2 S	(0.379)
SW9045 - Soil pH (pH units)						
pH		7.61	7.74	7.26	NA	

Table 5.2-1 (Continued)

Location ID		129-B01		129-B01		129-B02		129-B02	
Sample ID		129-B01-02-01		129-B01-03-01		129-B02-01-01		129-B02-02-01	
Beg. Depth-End Depth (ft)		8-10		28-30		0-2		8-10	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(30.4)	< DL	(31.6)	< DL	(28.2)	< DL	(29.6)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[$8x10^6$]	1100	(7.49)	9.8 J	(30.80)	ND	(27.60)	41	(29.10)
Benzene	[$2.4x10^4$]	ND	(1.82)	ND	(1.89)	ND	(1.69)	ND	(1.78)
Ethyl benzene	[$8x10^6$]	ND	(1.92)	ND	(1.99)	ND	(1.78)	ND	(1.88)
Methyl ethyl ketone	[$4.8x10^7$]	ND	(3.95)	ND	(4.10)	ND	(3.66)	6.17	(3.86)
Methylene chloride	[$9.3x10^4$]	ND	(1.67)	ND	(1.73)	ND	(1.55)	ND	(1.63)
Toluene	[$1.6x10^7$]	ND	(1.80)	ND	(1.87)	ND	(1.67)	ND	(1.76)
Trichloroethene	[NS]	ND	(3.36)	ND	(3.48)	ND	(3.12)	ND	(3.28)
Xylene (total)	[$1.6x10^8$]	ND	(3.90)	ND	(4.05)	ND	(3.62)	ND	(3.81)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0176)	ND	(0.0183)	ND	(0.0162)	ND	(0.0171)
Aniline	[123]	ND	(0.0362)	ND	(0.0377)	ND	(0.0334)	ND	(0.0352)
Anthracene	[$2.4x10^4$]	ND	(0.0238)	ND	(0.0248)	ND	(0.0219)	ND	(0.0232)
Benzo(a)anthracene	[.96]	ND	(0.0223)	ND	(0.0232)	ND	(0.0206)	ND	(0.0217)
Benzo(a)pyrene	[.096]	ND	(0.0282)	ND	(0.0293)	ND	(0.0260)	ND	(0.0274)
Benzo(b)fluoranthene	[.96]	ND	(0.0284)	ND	(0.0296)	ND	(0.0262)	ND	(0.0277)
Benzo(g,h,i)perylene	[NS]	ND	(0.0274)	ND	(0.0285)	ND	(0.0253)	ND	(0.0267)
Benzo(k)fluoranthene	[9.59]	ND	(0.0358)	ND	(0.0372)	ND	(0.0330)	ND	(0.0348)
Butylbenzylphthalate	[$1.6x10^4$]	ND	(0.0716)	ND	(0.0746)	ND	(0.0661)	ND	(0.0698)
Chrysene	[96]	ND	(0.0295)	ND	(0.0307)	ND	(0.0272)	ND	(0.0287)
Dibutylphthalate	[8000]	ND	(0.0235)	ND	(0.0245)	ND	(0.0217)	ND	(0.0229)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0603)	ND	(0.0628)	ND	(0.0556)	ND	(0.0587)
Fluoranthene	[3200]	ND	(0.0254)	ND	(0.0264)	ND	(0.0234)	ND	(0.0247)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0215)	ND	(0.0224)	ND	(0.0198)	ND	(0.0209)
Phenanthrene	[NS]	ND	(0.0329)	ND	(0.0343)	ND	(0.0304)	ND	(0.0321)
Pyrene	[2400]	ND	(0.0180)	ND	(0.0188)	ND	(0.0166)	ND	(0.0176)
SW7421 - Lead (mg/kg)									
Lead	[12,3,500]	7.68 S	(0.206)	4.61 S	(0.211)	5.74 S	(0.365)	9.87 S	(0.397)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B02		129-B03		129-B03		129-B03	
Sample ID		129-B02-03-01		129-B03-01-01		129-B03-02-01		129-B03-03-01	
Beg. Depth-End Depth (ft)		24-26		0-2		8-10		26-28	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(31.6)	152 B	(32.4)	< DL	(31.4)	< DL	(33.0)
SW8240 - Volatile Organics (μg/kg)									
Acetone	[8x10 ^{6}]	12.3 B	(1.60)	ND	(18.90)	34.9 B	(18.50)	18.6 BJ	(19.20)
Benzene	[2.4x10 ^{4}]	ND	(1.84)	ND	(1.29)	ND	(1.26)	ND	(1.31)
Ethyl benzene	[8x10 ^{6}]	ND	(1.77)	ND	(1.24)	ND	(1.21)	ND	(1.26)
Methyl ethyl ketone	[4.8x10 ^{7}]	ND	(1.63)	ND	(9.11)	ND	(8.91)	ND	(9.26)
Methylene Chloride	[9.3x10 ^{4}]	3.59 B	(2.79)	0.9 BJ	(2.69)	0.994 BJ	(2.63)	2.45 BJ	(2.73)
Toluene	[1.6x10 ^{7}]	ND	(1.82)	ND	(2.56)	ND	(2.50)	ND	(2.60)
Trichloroethene	[NS]	ND	(5.19)	3.43 J	(4.11)	ND	(4.02)	ND	(4.17)
Xylene (total)	[1.6x10 ^{8}]	ND	(3.89)	ND	(5.76)	ND	(5.63)	ND	(5.85)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0182)	ND	(0.0187)	ND	(0.0182)	ND	(0.0190)
Aniline	[123]	ND	(0.0375)	ND	(0.0385)	ND	(0.0374)	ND	(0.0391)
Anthracene	[2.4x10 ^{4}]	ND	(0.0246)	ND	(0.0253)	ND	(0.0246)	ND	(0.0257)
Benzo(a)anthracene	[.96]	ND	(0.0231)	0.0141 J	(0.0238)	ND	(0.0231)	ND	(0.0241)
Benzo(a)pyrene	[.096]	ND	(0.0292)	0.0152 J	(0.0300)	ND	(0.0291)	ND	(0.0304)
Benzo(b)fluoranthene	[.96]	ND	(0.0294)	0.0388 F	(0.0303)	ND	(0.0294)	ND	(0.0307)
Benzo(g,h,i)perylene	[NS]	ND	(0.0284)	ND	(0.0292)	ND	(0.0283)	ND	(0.0296)
Benzo(k)fluoranthene	[9.59]	ND	(0.0370)	0.0388 F	(0.0381)	ND	(0.0370)	ND	(0.0387)
Butylbenzylphthalate	[1.6x10 ^{4}]	ND	(0.0741)	ND	(0.0763)	ND	(0.0741)	ND	(0.0774)
Chrysene	[96]	ND	(0.0305)	0.0242 J	(0.0314)	ND	(0.0305)	ND	(0.0319)
Dibutylphthalate	[8000]	ND	(0.0244)	ND	(0.0251)	ND	(0.0244)	ND	(0.0254)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0624)	ND	(0.0642)	ND	(0.0624)	ND	(0.0652)
Fluoranthene	[3200]	ND	(0.0263)	0.029	(0.0270)	ND	(0.0262)	ND	(0.0274)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0222)	ND	(0.0229)	ND	(0.0222)	ND	(0.0232)
Phenanthrene	[NS]	ND	(0.0341)	ND	(0.0351)	ND	(0.0341)	ND	(0.0356)
Pyrene	[2400]	ND	(0.0187)	0.0228	(0.0192)	ND	(0.0187)	ND	(0.0195)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	4.11 B	(0.403)	21.9 S	(0.641)	6.94 S	(0.312)	4.9 S	(0.153)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B05		129-B05		129-B05		129-B06	
Sample ID		129-B05-01-01		129-B05-02-01		129-B05-03-01		129-B06-01-01	
Beg. Depth-End Depth (ft)		0-2		14-16		24-26		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(29.6)	< DL	(30.0)	< DL	(34.3)	< DL	(31.2)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0171)	ND	(0.0173)	ND	(0.0198)	ND	(0.0180)
Aniline	[123]	ND	(0.0352)	ND	(0.0356)	ND	(0.0408)	ND	(0.0371)
Anthracene	[2.4×10^4]	ND	(0.0231)	ND	(0.0234)	ND	(0.0268)	ND	(0.0244)
Benzo(a)anthracene	[.96]	0.0304	(0.0217)	ND	(0.0219)	ND	(0.0251)	ND	(0.0229)
Benzo(a)pyrene	[.096]	0.0145 J	(0.0274)	ND	(0.0277)	ND	(0.0318)	ND	(0.0289)
Benzo(b)fluoranthene	[.96]	0.0209 FJ	(0.0277)	ND	(0.0280)	ND	(0.0321)	ND	(0.0292)
Benzo(g,h,i)perylene	[NS]	ND	(0.0266)	ND	(0.0270)	ND	(0.0309)	ND	(0.0281)
Benzo(k)fluoranthene	[9.59]	0.0209 FJ	(0.0348)	ND	(0.0352)	ND	(0.0403)	ND	(0.0367)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0696)	ND	(0.0705)	ND	(0.0808)	ND	(0.0735)
Chrysene	[96]	0.0318	(0.0287)	ND	(0.0290)	ND	(0.0333)	ND	(0.0303)
Dibutylphthalate	[8000]	ND	(0.0229)	ND	(0.0232)	ND	(0.0266)	ND	(0.0242)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0586)	ND	(0.0593)	ND	(0.0680)	ND	(0.0619)
Fluoranthene	[3200]	0.0413	(0.0247)	ND	(0.0250)	ND	(0.0286)	ND	(0.0260)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0209)	ND	(0.0211)	ND	(0.0242)	ND	(0.0221)
Phenanthrene	[NS]	0.0468	(0.0320)	ND	(0.0324)	ND	(0.0371)	ND	(0.0338)
Pyrene	[2400]	0.0665	(0.0175)	ND	(0.0178)	ND	(0.0204)	ND	(0.0185)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	6.14 S	(0.141)	4.73 S	(0.141)	1.24 S	(0.138)	2.06 S	(0.145)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B06		129-B06		129-B07		129-B07	
Sample ID		129-B06-02-01		129-B06-03-01		129-B07-01-01		129-B07-02-01	
Beg. Depth-End Depth (ft)		14-16		24-26		0-2		14-16	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(30.0)	< DL	(34.6)	62.8	(27.7)	< DL	(30.3)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0174)	ND	(0.0200)	ND	(0.0160)	ND	(0.0175)
Aniline	[123]	ND	(0.0358)	ND	(0.0412)	ND	(0.0330)	ND	(0.0361)
Anthracene	[2.4×10^4]	ND	(0.0235)	ND	(0.0271)	ND	(0.0217)	ND	(0.0237)
Benzo(a)anthracene	[.96]	ND	(0.0220)	ND	(0.0254)	ND	(0.0204)	ND	(0.0222)
Benzo(a)pyrene	[.096]	ND	(0.0278)	ND	(0.0321)	ND	(0.0257)	ND	(0.0281)
Benzo(b)fluoranthene	[.96]	ND	(0.0281)	ND	(0.0324)	ND	(0.0260)	ND	(0.0284)
Benzo(g,h,i)perylene	[NS]	ND	(0.0271)	ND	(0.0312)	ND	(0.0250)	ND	(0.0273)
Benzo(k)fluoranthene	[9.59]	ND	(0.0354)	ND	(0.0407)	ND	(0.0327)	ND	(0.0357)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0708)	ND	(0.0816)	ND	(0.0654)	ND	(0.0714)
Chrysene	[96]	ND	(0.0292)	ND	(0.0336)	ND	(0.0269)	ND	(0.0294)
Dibutylphthalate	[8000]	ND	(0.0233)	ND	(0.0268)	ND	(0.0215)	ND	(0.0235)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0596)	ND	(0.0687)	ND	(0.0550)	ND	(0.0601)
Fluoranthene	[3200]	ND	(0.0251)	ND	(0.0289)	ND	(0.0232)	ND	(0.0253)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0212)	ND	(0.0245)	ND	(0.0196)	ND	(0.0214)
Phenanthrene	[NS]	ND	(0.0326)	ND	(0.0375)	ND	(0.0301)	ND	(0.0329)
Pyrene	[2400]	ND	(0.0178)	ND	(0.0205)	ND	(0.0165)	ND	(0.0180)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	4.95 S	(0.130)	1.44 S	(0.137)	8.49 S	(0.129)	4.99 S	(0.126)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B07		129-B08		129-B08		129-B08	
Sample ID		129-B07-03-01		129-B08-01-01		129-B08-02-01		129-B08-03-01	
Beg. Depth-End Depth (ft)		24-26		0-2		14-16		24-26	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(34.7)	116.0	(27.8)	< DL	(30.1)	< DL	(34.2)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0200)	ND	(0.0160)	ND	(0.0174)	ND	(0.0197)
Aniline	[123]	ND	(0.0411)	ND	(0.0330)	ND	(0.0358)	ND	(0.0407)
Anthracene	[2.4×10^4]	ND	(0.0270)	ND	(0.0217)	ND	(0.0235)	ND	(0.0267)
Benzo(a)anthracene	[.96]	ND	(0.0253)	ND	(0.0204)	ND	(0.0221)	ND	(0.0251)
Benzo(a)pyrene	[.096]	ND	(0.0320)	ND	(0.0257)	ND	(0.0279)	ND	(0.0317)
Benzo(b)fluoranthene	[.96]	ND	(0.0323)	ND	(0.0260)	ND	(0.0281)	ND	(0.0320)
Benzo(g,h,i)perylene	[NS]	ND	(0.0311)	0.0388	(0.0250)	ND	(0.0271)	ND	(0.0308)
Benzo(k)fluoranthene	[9.59]	ND	(0.0406)	ND	(0.0327)	ND	(0.0354)	ND	(0.0402)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0814)	ND	(0.0654)	ND	(0.0708)	ND	(0.0805)
Chrysene	[96]	ND	(0.0335)	ND	(0.0269)	ND	(0.0292)	ND	(0.0332)
Dibutylphthalate	[8000]	ND	(0.0268)	ND	(0.0215)	ND	(0.0233)	ND	(0.0265)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0685)	ND	(0.0551)	ND	(0.0596)	ND	(0.0678)
Fluoranthene	[3200]	ND	(0.0288)	ND	(0.0232)	ND	(0.0251)	ND	(0.0285)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0244)	ND	(0.0196)	ND	(0.0213)	ND	(0.0242)
Phenanthrene	[NS]	ND	(0.0374)	ND	(0.0301)	ND	(0.0326)	ND	(0.0370)
Pyrene	[2400]	ND	(0.0205)	ND	(0.0165)	ND	(0.0179)	ND	(0.0203)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	0.441 S	(0.1280)	9.75 S	(0.2710)	3.28 S	(0.0684)	0.495 SB	(0.0609)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B09		129-B09		129-B09		129-B10	
Sample ID		129-B09-01-01		129-B09-02-01		129-B09-03-01		129-B10-01-01	
Beg. Depth-End Depth (ft)		0-2		14-16		24-26		0-2	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(31.0)	< DL	(30.6)	< DL	(34.0)	< DL	(31.8)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0179)	ND	(0.0176)	ND	(0.0196)	ND	(0.0220)
Aniline	[123]	ND	(0.0368)	ND	(0.0363)	ND	(0.0404)	ND	(0.0267)
Anthracene	[2.4×10^4]	ND	(0.0242)	ND	(0.0239)	ND	(0.0266)	ND	(0.0326)
Benzo(a)anthracene	[.96]	ND	(0.0227)	ND	(0.0224)	ND	(0.0249)	ND	(0.0254)
Benzo(a)pyrene	[.096]	ND	(0.0286)	ND	(0.0283)	ND	(0.0314)	ND	(0.0340)
Benzo(b)fluoranthene	[.96]	ND	(0.0289)	ND	(0.0286)	ND	(0.0317)	ND	(0.0449)
Benzo(g,h,i)perylene	[NS]	ND	(0.0279)	ND	(0.0275)	ND	(0.0306)	ND	(0.0483)
Benzo(k)fluoranthene	[9.59]	ND	(0.0364)	ND	(0.0359)	ND	(0.0399)	ND	(0.0470)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0729)	ND	(0.0720)	ND	(0.0799)	ND	(0.0779)
Chrysene	[96]	ND	(0.0300)	ND	(0.0296)	ND	(0.0329)	ND	(0.0423)
Dibutylphthalate	[8000]	ND	(0.0240)	ND	(0.0237)	ND	(0.0263)	ND	(0.0211)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.0613)	0.0355 J	(0.0606)	ND	(0.0673)	ND	(0.1130)
Fluoranthene	[3200]	ND	(0.0258)	ND	(0.0255)	ND	(0.0283)	ND	(0.0252)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0219)	ND	(0.0216)	ND	(0.0240)	ND	(0.0377)
Phenanthrene	[NS]	ND	(0.0335)	ND	(0.0331)	ND	(0.0368)	ND	(0.0282)
Pyrene	[2400]	ND	(0.0184)	ND	(0.0181)	ND	(0.0201)	ND	(0.0302)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	2.35 S	(0.1510)	4.27 S	(0.1300)	2.11 S	(0.0647)	2.39 S	(0.0891)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B10		129-B10		129-B11		129-B11	
Sample ID		129-B10-02-01		129-B10-03-01		129-B11-01-01		129-B11-02-01	
Beg. Depth-End Depth (ft)		14-16		24-26		0-2		12-14	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(31.9)	< DL	(29.7)	< DL	(30.7)	< DL	(30.5)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0221)	ND	(0.0205)	ND	(0.0636)	ND	(0.0210)
Aniline	[123]	ND	(0.0268)	ND	(0.0249)	ND	(0.0772)	ND	(0.0255)
Anthracene	[2.4×10^4]	ND	(0.0328)	ND	(0.0304)	ND	(0.0943)	ND	(0.0312)
Benzo(a)anthracene	[.96]	ND	(0.0255)	ND	(0.0237)	ND	(0.0735)	ND	(0.0243)
Benzo(a)pyrene	[.096]	ND	(0.0341)	ND	(0.0317)	ND	(0.0982)	ND	(0.0325)
Benzo(b)fluoranthene	[.96]	ND	(0.0451)	ND	(0.0419)	ND	(0.1300)	ND	(0.0429)
Benzo(g,h,i)perylene	[NS]	ND	(0.0485)	ND	(0.0450)	ND	(0.1400)	ND	(0.0462)
Benzo(k)fluoranthene	[9.59]	ND	(0.0473)	ND	(0.0439)	ND	(0.1360)	ND	(0.0450)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0783)	ND	(0.0727)	ND	(0.2250)	ND	(0.0745)
Chrysene	[96]	ND	(0.0426)	ND	(0.0395)	ND	(0.1220)	ND	(0.0405)
Dibutylphthalate	[8000]	ND	(0.0212)	ND	(0.0197)	ND	(0.0611)	ND	(0.0202)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.1140)	ND	(0.1060)	ND	(0.3280)	ND	(0.1090)
Fluoranthene	[3200]	ND	(0.0253)	ND	(0.0235)	ND	(0.0729)	ND	(0.0241)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0379)	ND	(0.0352)	ND	(0.1090)	ND	(0.0361)
Phenanthrene	[NS]	ND	(0.0284)	ND	(0.0263)	ND	(0.0816)	ND	(0.0270)
Pyrene	[2400]	ND	(0.0304)	ND	(0.0282)	ND	(0.0875)	ND	(0.0289)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	7.07 S	(0.2070)	3.95 S	(0.0907)	4.3	(0.0678)	2.29	(0.0655)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B11		129-B12		129-B12		129-B12	
Sample ID		129-B11-03-01		129-B12-01-01		129-B12-02-01		129-B12-03-01	
Beg. Depth-End Depth (ft)		26-28		0-2		14-16		26-28	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)									
Hydrocarbons	[1000]	< DL	(31.1)	< DL	(30.4)	< DL	(31.4)	< DL	(29.4)
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	ND	(0.0214)	ND	(0.0210)	ND	(0.0217)	ND	(0.0204)
Aniline	[123]	ND	(0.0260)	ND	(0.0254)	ND	(0.0263)	ND	(0.0247)
Anthracene	[2.4×10^4]	ND	(0.0317)	ND	(0.0311)	ND	(0.0322)	ND	(0.0302)
Benzo(a)anthracene	[.96]	ND	(0.0247)	ND	(0.0242)	ND	(0.0251)	ND	(0.0235)
Benzo(a)pyrene	[.096]	ND	(0.0330)	ND	(0.0324)	ND	(0.0335)	ND	(0.0315)
Benzo(b)fluoranthene	[.96]	ND	(0.0437)	ND	(0.0428)	ND	(0.0443)	ND	(0.0416)
Benzo(g,h,i)perylene	[NS]	ND	(0.0470)	ND	(0.0460)	ND	(0.0476)	ND	(0.0447)
Benzo(k)fluoranthene	[9.59]	ND	(0.0457)	ND	(0.0448)	ND	(0.0464)	ND	(0.0436)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0758)	ND	(0.0743)	ND	(0.0769)	ND	(0.0722)
Chrysene	[96]	ND	(0.0412)	ND	(0.0404)	ND	(0.0418)	ND	(0.0392)
Dibutylphthalate	[8000]	ND	(0.0206)	ND	(0.0202)	ND	(0.0208)	ND	(0.0196)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.1100)	ND	(0.1080)	ND	(0.1120)	ND	(0.1050)
Fluoranthene	[3200]	ND	(0.0245)	ND	(0.0240)	ND	(0.0249)	ND	(0.0234)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0367)	ND	(0.0360)	ND	(0.0372)	ND	(0.0350)
Phenanthrene	[NS]	ND	(0.0274)	ND	(0.0269)	ND	(0.0278)	ND	(0.0261)
Pyrene	[2400]	ND	(0.0294)	ND	(0.0288)	ND	(0.0298)	ND	(0.0280)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	3.06	(0.0696)	3.18	(0.0600)	3.23	(0.0592)	1.85	(0.0538)
SW9045 - Soil pH (pH units)									
pH		NA		NA		NA		NA	

Table 5.2-1 (Continued)

Location ID		129-B13		129-B13		129-B13	
Sample ID		129-B13-01-01		129-B13-02-01		129-B13-03-01	
Beg. Depth-End Depth (ft)		0-2		14-16		30-32	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/kg)							
Hydrocarbons	[1000]	< DL	(30.7)	< DL	(32.3)	< DL	(31.6)
SW8270 - Semivolatile Organics (μg/g)							
Acetophenone	[8000]	ND	(0.0212)	ND	(0.0223)	ND	(0.0217)
Aniline	[123]	ND	(0.0257)	ND	(0.0271)	ND	(0.0263)
Anthracene	[2.4×10^4]	ND	(0.0315)	ND	(0.0331)	ND	(0.0322)
Benzo(a)anthracene	[.96]	ND	(0.0245)	ND	(0.0258)	ND	(0.0251)
Benzo(a)pyrene	[.096]	ND	(0.0328)	ND	(0.0345)	ND	(0.0335)
Benzo(b)fluoranthene	[.96]	ND	(0.0433)	ND	(0.0456)	ND	(0.0443)
Benzo(g,h,i)perylene	[NS]	ND	(0.0466)	ND	(0.0491)	ND	(0.0477)
Benzo(k)fluoranthene	[9.59]	ND	(0.0454)	ND	(0.0478)	ND	(0.0464)
Butylbenzylphthalate	[1.6×10^4]	ND	(0.0752)	ND	(0.0792)	ND	(0.0769)
Chrysene	[96]	ND	(0.0409)	ND	(0.0431)	ND	(0.0418)
Dibutylphthalate	[8000]	ND	(0.0204)	ND	(0.0215)	ND	(0.0209)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.1100)	ND	(0.1150)	ND	(0.1120)
Fluoranthene	[3200]	ND	(0.0243)	ND	(0.0256)	ND	(0.0249)
Indeno(1,2,3-cd)pyrene	[0.96]	ND	(0.0364)	ND	(0.0384)	ND	(0.0373)
Phenanthrene	[NS]	ND	(0.0272)	ND	(0.0287)	ND	(0.0279)
Pyrene	[2400]	ND	(0.0292)	ND	(0.0307)	ND	(0.0299)
SW7421 - Lead (mg/kg)							
Lead	[12.3,500]	2.1	(0.0761)	4.29	(0.0703)	4.71	(0.0624)
SW9045 - Soil pH (pH units)							
pH		NA		NA		NA	

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
DL = Detection limit.
F = Benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. Results reported are for the sum of both compounds.
J = Estimated concentration, analyte detected at concentration below the detection limit.
NA = Not analyzed.
ND = Not detected.
NS = Not specified.
S = Analyte concentration obtained using MSA.

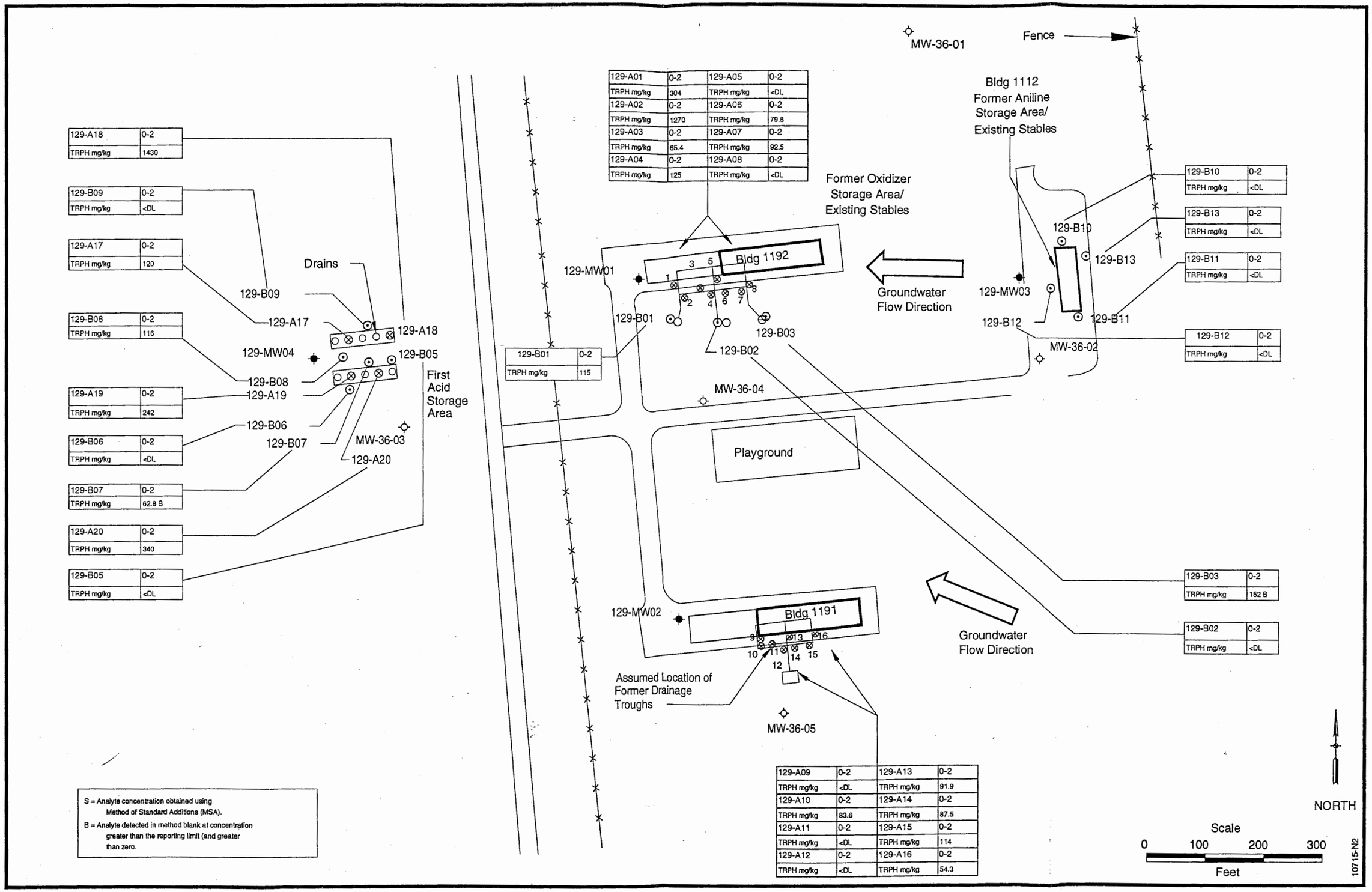


Figure 5.2-2. Occurrences of TRPH in the Soil at SWMUs 129 and 178

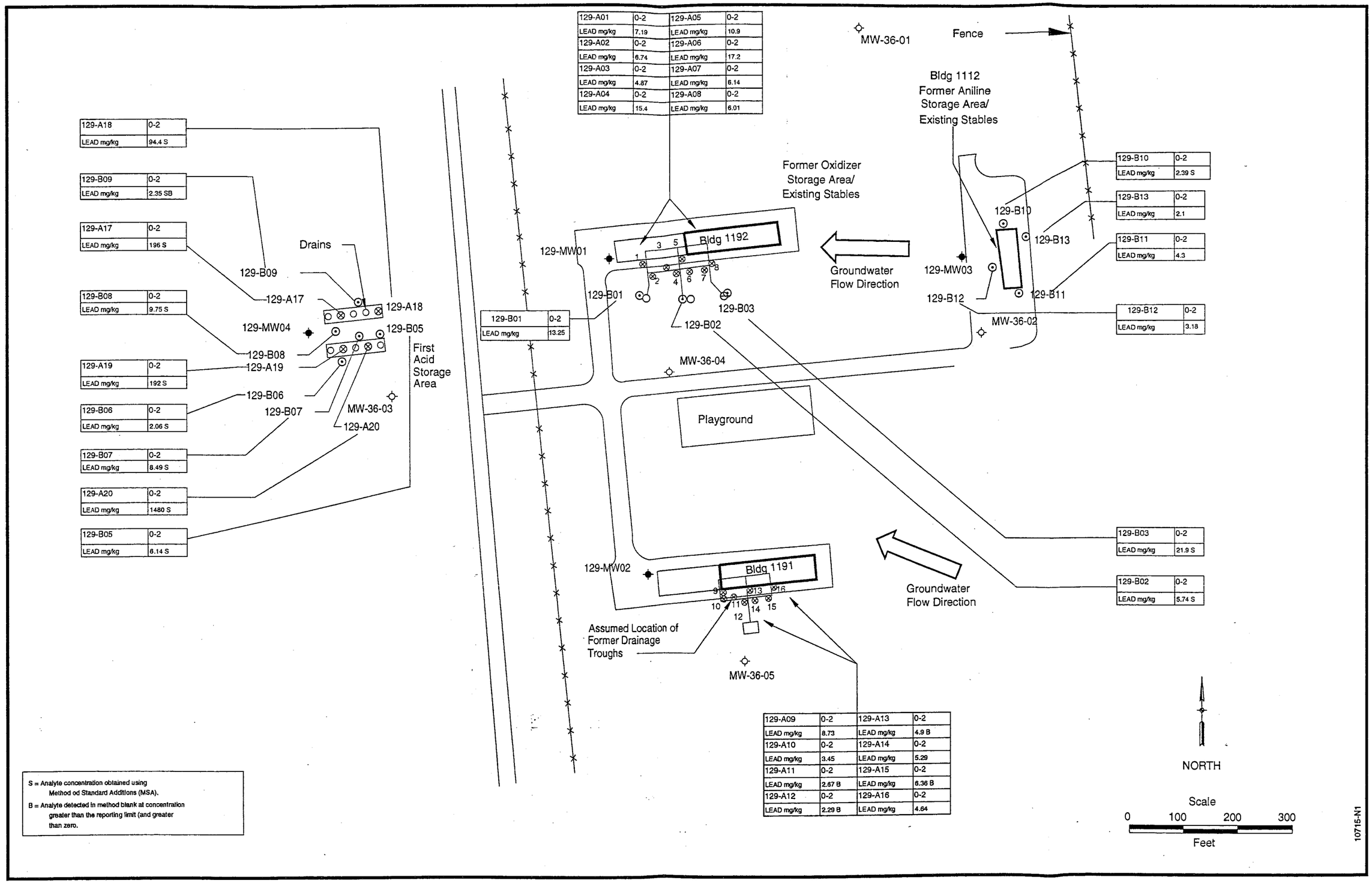


Figure 5.2-3. Occurrences of Lead in the Soil at SWMUs 129 and 178

TRPH was detected in 19 samples. However, detected TRPH concentrations exceeded trigger criteria only in surface samples from two locations: 129-A02, which is along a drainage trough south of Building 1192 and is in a location where people often park motor vehicles; and 129-A18, which is the northeastern-most drain in the former first acid storage area. No visibly stained soils were noted in either of these two areas.

No detected concentrations of volatile organic compounds exceeded trigger criteria. A variety of volatile organic compounds were detected at concentrations below detection limits. Acetone and methylene chloride were detected in several samples, but were detected at similar concentrations in associated method blanks, so their presence in the samples is uncertain and may be due to low laboratory contamination. The only volatiles detected above detection limits and not detected in method blanks were acetone, toluene, and methyl ethyl ketone.

No semivolatile organic compounds were detected at concentrations above trigger criteria. A variety of semivolatile organic compounds were detected at ppm levels in several samples. Junipene was detected as a tentatively identified compound (TIC) in one sample, but its identity and concentration are uncertain.

Lead was detected at concentrations exceeding UTLs for background in 7 samples. Lead was detected at concentrations exceeding trigger criteria only in the soil sample from 129-A20, which is a hand auger sample collected from a drain at the former first acid storage area. Elevated levels of lead were detected in all four drain samples from this area. The metal drains themselves are possibly the source of lead.

Soil pH levels in potentially contaminated samples ranged from 6.4 to 8.4. Soil pH in background samples range from 7.26 to 7.74.

Groundwater

All groundwater samples were analyzed for TRPH, semivolatile organic compounds, lead, and nitrate-nitrite. Groundwater samples were not filtered prior to analysis. The summary analytical results are presented in Table 5.2-2.

No TRPH or semivolatile organic compounds were detected in groundwater. Semivolatiles are a main component of nonconventional fuels.

Lead was detected in one groundwater sample (129-MW01) at a concentration below trigger criteria.

Nitrate-nitrite were sampled as an indicator of nitric acid. Nitrate-nitrite concentrations ranged from 0.345 mg/L in 129-MW04 to 31.9 mg/L in 129-MW01 during the RI Investigation (1992). The background concentration measured for nitrate-nitrite was 98.14 mg/L; therefore, the presence of nitric acid is unlikely.

5.2.3 Risk Assessment Results

The quantitative risk assessment conducted for IRP Site 36 (SWMUs 129 and 178) was updated using new data collected during this investigation to assess the impacts of site COPCs on human health and the environment. COPCs, exposure pathways, and receptors were identified as described in Appendix C. The risk assessment methodology followed is presented in the *RA Report* (Radian, 1992b). COPCs selected for the site are presented in Table C.1-3. Risked-based screening results are presented in Attachment 5 of Appendix C.

All identified receptors at the site, recreational users, on site workers and potential future construction workers, could be exposed through inhalation of volatiles and through inhalation of contaminants entrained in fugitive dust generated at the site and by dermal contact and incidental

Table 5.2-2
Analytical Results for Groundwater Samples—SWMU 129

Location ID		129-MW01		129-MW02		129-MW03		129-MW04	
Sample ID		129-MW01-01-01		129-MW02-01-01		129-MW03-01-01		129-MW04-01-01	
E418.1 - Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons	[NS]	< DL	(0.17)	< DL	(0.174)	< DL	(0.169)	< DL	(0.175)
SW7421 - Lead (mg/L)									
Lead	[12.3,0.05]	0.00169	(0.0008)	< DL	(0.0008)	< DL	(0.00107)	< DL	(0.0008)
E353.1 - Nitrate-Nitrite (mg/L)									
Nitrate-Nitrite as N	[NS]	31.9	(0.5)	3.7	(0.05)	29.2	(0.5)	0.345	(0.02)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = Trigger criteria for organics. [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
DL = Detection limit.
NS = Not specified.

ingestion of surface soil contaminants or subsurface soil contaminants if construction were to take place on the site in the future. These were the exposure pathways quantified in the risk assessment. On-base residents, approximately 3 miles from the site, are too far away for significant impacts from contaminants at the site.

Risk values for all scenarios evaluated were below the range considered unacceptable. For the on site worker scenario, present and future average and reasonable maximum carcinogenic risks are 3E-07 and 4E-07 respectively. Present and future recreational carcinogenic risks are 2E-07 and 7E-07 for the average and reasonable maximum exposure scenarios. Potential future construction worker carcinogenic risks are 3E-10 and 5E-10 for average and reasonable maximum exposures, respectively. The non-carcinogenic hazard for this site was not assessed because none of the COPCs had non-carcinogenic toxicity values. Tables in Attachment 3 of Appendix C present the risks by chemical, exposure pathway, and scenario total for each scenario.

An ecological quotient (EQ) of 0.3 for black-tailed jackrabbits at the site indicates low probability of any adverse environmental effects from the COPCs at the site. A quantitative environmental evaluation was conducted on the assumption that exposure to site contaminants would be possible through plant uptake and subsequent ingestion by animals, as well as by soil ingestion. Methodology for the EQ method is presented in Appendix K of the *RA Report* (Radian, 1992b); calculated plant and jack-rabbit uptake and EQs are presented in Tables C.2-3 and C.2-4 of Appendix C.

5.2.4 Conclusions

Conclusions are based on a comparison of the analytical results to risk-based trigger criteria, the results of the quantitative risk assessment (acceptable or unacceptable risk), and a comparison of the analytical results to the New Mexico cleanup standard of 1000 mg/kg for Holloman AFB.

The three sumps associated with Building 1192 were found, and soil samples from the soil borings adjacent to the sumps indicated that no constituents were present at concentrations above trigger criteria.

During the Phase II RFI, groundwater samples were analyzed for TPH and SVOCs. Neither were detected in any groundwater sample. No VOCs, except TCE (detected in only one sample at 24 µg/L), were detected during the Phase I Table 1 RFI conducted in 1991. Other VOCs were intermittently detected but were also blank detected or detected at levels below the acceptable instrument's detection limit. The lead detected in sample 129-A20 (1430 mg/kg) (industrial Region 6 lead screen is 2000 mg/kg) was taken from a metal drainpipe within a concrete slab. Samples cannot be taken below the sampled depth because it was taken at the bottom of the drain. This site is abandoned and is located in a remote area.

5.2.5 Recommendations

CNFA was recommended for this site in the 1994 Draft Final Phase I Table 2 RFI Report. The condition of NFA was the remediation of TRPH-contaminated soil. This area was excavated in July 1995 as part of Holloman AFB's Phase I Basewide POL project. Approximately 30 cubic yards were excavated and disposed. Confirmation samples ranged from not-detected to 180 mg/kg. Further details can be found in the *Remediation of POL-Contaminated Sites and Oil/Water Separator Removals, Holloman Air Force Base, New Mexico, July-November 1995* submitted February 1996.

[This page intentionally left blank.]

5.3 SWMU 165—Building 1176 Pond SWMU 177—Building 1176 Sumps SWMU 179—Building 1176 Discharge Box SWMU 181—Building 1176 Drainage Troughs

SWMUs 165 and 179 are listed on Table 1 of Holloman AFB's HSWA permit, and SWMUs 177 and 181 are listed on Table 2 of the permit. SWMU 165 has never been located. The other SWMUs are part of the IRP Site 39, which was investigated in 1991. This investigation is summarized in the *RI Report* (Radian, 1992). The results of the previous investigation indicated that lead and cadmium in soil posed a potential risk to black-tailed jackrabbits. There was no indicated risk to human receptors.* The *RI Report* also indicated that groundwater downgradient of Building 1176 contains TCE.

To address the concerns of the Phase I Investigation, for this investigation soil samples were collected from 8 borings located along the drainage ditches below the oxidizer and propellant outfalls, 2 borings at Building 1176 sumps, and 5 hand auger borings; and groundwater samples were collected from 15 temporary sampling locations using a Geoprobe, and screened in the field for chlorinated compounds. Eight groundwater samples were submitted to the laboratory for confirmation analysis. Additionally, surface soil samples, vegetation samples, and jackrabbit tissue, blood and urine samples were collected in the area, and surface water samples were collected from the Lost River Basin in order to better characterize potential risk to ecological receptors.

Analytical results indicate that there are no constituents, including unconventional fuels, that exceed trigger criteria. In addition, the results of the previous human health risk assessment together with the updated environmental risk assessment indicate that risks to human and ecological receptors are acceptable for the site. Elevated levels of TCE were detected in the groundwater downgradient of Building 1176; however, since groundwater at Holloman AFB is not potable, elevated groundwater constituents do not have to be remediated unless free product is present. NFA is recommended; a Class 3 permit modification request will be completed by Holloman AFB to achieve NFA.

5.3.1 SWMU Description

Physical Features: As shown in Figure 5.3-1, the SWMUs are located immediately south of the test track and Building 1176 in the North Base area.

Unit Description—SWMU 177 consists of three in-ground concrete drainage sumps which received liquid wastes discharged from Building 1176. SWMU 181 consists of three open-topped ceramic tile drainage troughs which connect the drainage sumps (SWMU 177) to Building 1176. SWMU 179 is located approximately 350 ft east-northeast of Building 1176 and consists of an inactive rectangular concrete discharge box that received runoff via the propellant spill drainpipe from the alpha pad drainage system. Runoff from the discharge box was directed toward the Building 1176 Pond (SWMU 165) via a drainage ditch. The drainage systems for the alpha pad and Building 1176 were designed to prevent accidents in the event of a fuel spill during fueling or defueling activities. The drainage systems collected and drained spilled oxidizers and propellants separately.

Waste Description—All SWMUs were involved in the fueling, detanking, and routine maintenance of test sleds. Fueling activities for test sleds were completed on the track at the Alpha Pad before each sled launch. Before sleds were removed from the track, fuels were emptied from the sleds into the proper storage containers and the sleds were taken to Building 1176, where any remaining fuel was purged from the engines.

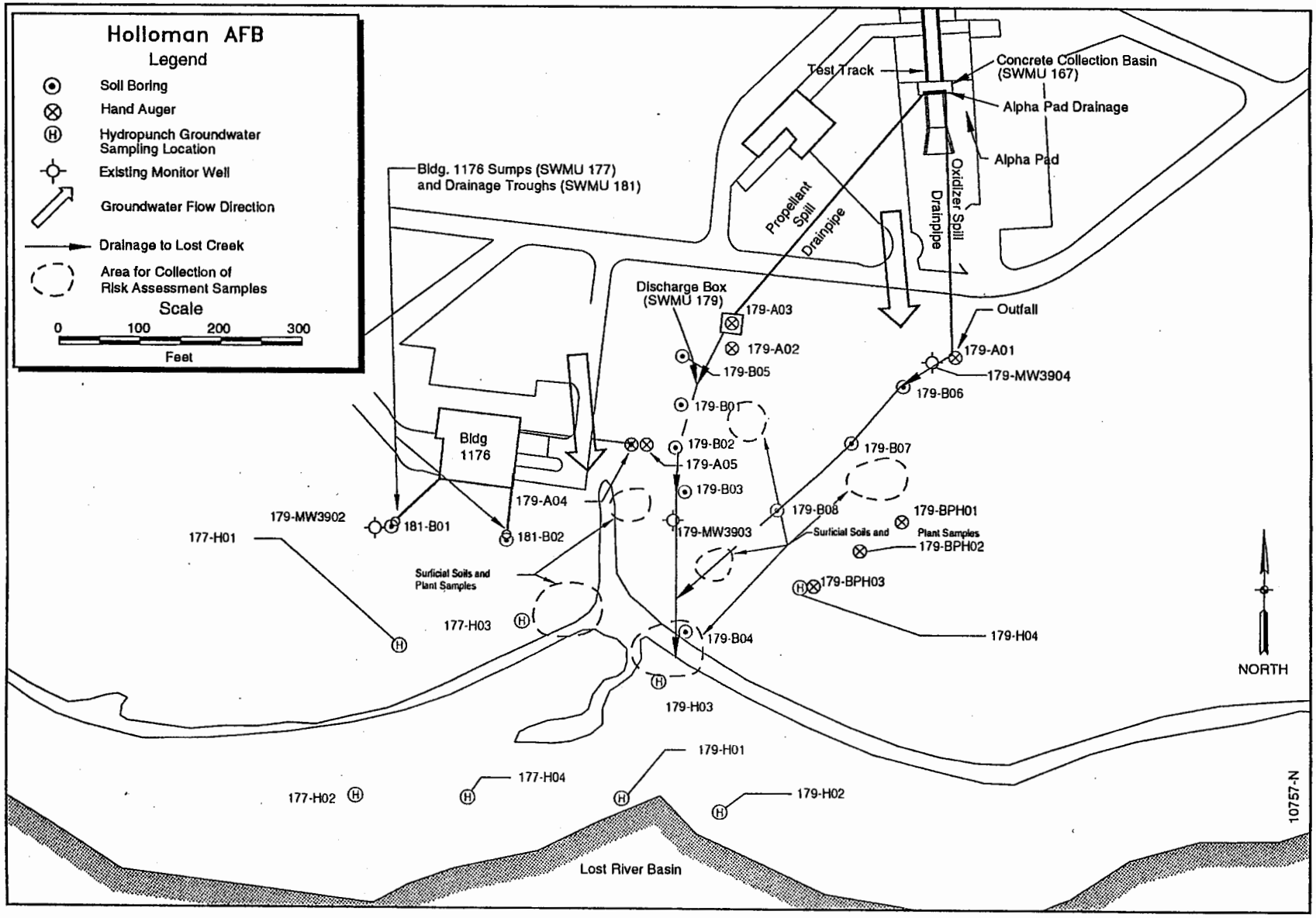


Figure 5.3-1. Features and Sampling Locations at SWMUs 165, 177, 179, and 181

Fuels used at the test track included the following: unsymmetrical dimethyldradazine (UDMH), aniline, JP-4 (jet fuel), inhibited red fuming nitric acid (IRFNA), inhibited white fuming nitric acid (IWFNA), liquid oxygen (LOX), JPX (1:1 JP-4 and UDMH), dyes, solid rocket propellants, and possibly other compounds. However, no unconventional fuels were detected at the site during the Table 2 RFI. Solvents, such as trichloroethene, were commonly used in sled maintenance activities.

Release History—Fuel spills are said to have been very uncommon due to stringent safety precautions, though interviews with past employees have indicated that natural, topographic drainage trenches and drainage troughs could have received wastes.

5.3.2 Site Investigation and Results

Eight soil borings were drilled in the drainage ditches downstream of the oxidizer and propellant spill drainpipes. Split spoon samples were collected every 2 ft to groundwater. Each interval was logged and screened using an OVM. Boring logs with screening results are provided in Appendix D. Chemical analytical samples were collected from 0-2 ft, 2-4 ft, and 4-6 ft intervals, and the interval intersecting groundwater, except in 179-B04, where groundwater was encountered at approximately 3 ft. Two soil borings were drilled adjacent to the sumps south of Building 1176. Split spoon samples were collected every 2 ft to the estimated bottom of the sump. Each interval was logged and screened using an OVM. Five hand auger borings were drilled in locations that were inaccessible to the drill rig. Hand auger borings were sampled at 2-4 ft, 4-6 ft, and 8-10 ft intervals. Background pH samples were collected in three surface locations using the hand auger.

Groundwater samples were collected from 15 temporary sampling locations using the Geoprobe. These samples were screened for TCE in the field using a GC. Eight of these samples were submitted to the laboratory for confirmation analysis. Groundwater samples were collected from two of the existing monitor wells at the site.

For the ecological assessment, surface soil and vegetation samples were collected from six jackrabbit forage areas at the site, and one background forage area. Blood, liver, kidney, and urine samples were collected from one black-tailed jackrabbit sniped at the site. Surface water was collected from the Lost River Basin at locations far upgradient and downgradient of the site.

Geology and Hydrogeology

The subsurface conditions at the SWMUs were defined by direct sampling and observation of the drilling operations at the site. Boring logs provide a detailed description of site stratigraphy.

Site lithology consists primarily of sand and silty sand interbedded with clay lenses ranging in thickness from 2 to 3 ft. Groundwater occurs in sand between 2 and 14 ft bgl. Groundwater in this part of the Base generally flows to the south toward Lost River Basin.

Analytical Results

Soil—Soil samples from the drainage ditches (SWMU 179) were analyzed for semivolatile organic compounds and metals. Samples collected from the hand auger locations were analyzed for metals. Background samples were analyzed for pH. Summary analytical results are presented in Table 5.3-1. Analytical results for lead detected in the soil at SWMU 179 are presented graphically in Figure 5.3-2. Samples collected from the borings adjacent to the Building 1176 sumps were analyzed for semivolatile organic compounds. Summary analytical results are presented in Table 5.3-2.

Table 5.3-1
Analytical Results for Soil Samples—SWMU 179

Location ID		179-A01		179-A01		179-A01		179-A02	
Sample ID		179-A01-01-01		179-A01-02-01		179-A01-03-01		179-A02-01-01	
Beg. Depth-End Depth (ft)		0-2		2-4		8-10		2-4	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	84	(0.0502)	80	(0.0403)	143	(0.0524)	41.7	(0.0535)
Cadmium	[80]	11.3	(0.249)	22.4	(0.2)	6.3	(0.26)	2.33	(0.265)
Chromium	[6.6,8x10 ^{4}]	47.8	(0.237)	188	(0.19)	38.6	(0.247)	12.8	(0.252)
Silver	[0.73,400]	< DL	(0.159)	1.5	(0.127)	0.282	(0.166)	< DL	(0.169)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	109 S	(3.96)	94.2 S	(3.62)	22.6 SB	(0.836)	5.84 S	(0.208)
Location ID		179-A02		179-A02		179-A03		179-A03	
Sample ID		179-A02-02-01		179-A02-03-01		179-A03-01-01		179-A03-02-01	
Beg. Depth-End Depth (ft)		4-6		8-10		2-4		4-6	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	32	(0.0634)	48	(0.0565)	36.6	(0.0569)	30.7	(0.058)
Cadmium	[80]	< DL	(0.314)	< DL	(0.28)	0.296	(0.282)	< DL	(0.288)
Chromium	[6.6,8x10 ^{4}]	4.05 B	(0.299)	8.71	(0.266)	8.14	(0.268)	4.59	(0.274)
Silver	[0.73,400]	< DL	(0.2)	< DL	(0.179)	< DL	(0.18)	< DL	(0.183)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	0.592 S	(0.112)	0.11 SB	(0.0799)	6.77 S	(0.2)	1.1 S	(0.105)
Location ID		179-A03		179-A04		179-A04		179-A04	
Sample ID		179-A03-03-01		179-A04-01-01		179-A04-02-01		179-A04-03-01	
Beg. Depth-End Depth (ft)		8-10		2-4		4-6		8-10	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	25.2	(0.054)	33.1	(0.0485)	22.9	(0.0535)	57.5	(0.051)
Cadmium	[80]	< DL	(0.267)	1.09	(0.24)	0.582	(0.265)	< DL	(0.253)
Chromium	[6.6,8x10 ^{4}]	3.67	(0.254)	4.84	(0.228)	4.61	(0.252)	11.1	(0.24)
Silver	[0.73,400]	< DL	(0.171)	< DL	(0.153)	< DL	(0.169)	< DL	(0.161)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	0.535 SB	(0.0772)	43.8 S	(2.01)	44.4 S	(2.02)	13.6 S	(0.325)

Table 5.3-1 (Continued)

Location ID		179-A05		179-A05		179-A05		179-B01	
Sample ID		179-A05-01-01		179-A05-02-01		179-A05-03-01		179-B01-01-01	
Beg. Depth-End Depth (ft)		0-2		4-6		8-10		0-2	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		NA		NA		ND	(0.0193)
Anthracene	[2.4x10 ^{4}]	NA		NA		NA		ND	(0.0262)
Benzo(a)anthracene	[.96]	NA		NA		NA		ND	(0.0245)
Benzo(a)pyrene	[.096]	NA		NA		NA		ND	(0.031)
Benzo(b)fluoranthene	[.96]	NA		NA		NA		ND	(0.0313)
Benzo(g,h,i)perylene	[NS]	NA		NA		NA		ND	(0.0301)
Benzo(k)fluoranthene	[9.59]	NA		NA		NA		ND	(0.0393)
Chrysene	[96]	NA		NA		NA		ND	(0.0324)
Di-n-octylphthalate	[1600]	NA		NA		NA		ND	(0.0355)
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		NA		ND	(0.0663)
Fluoranthene	[3200]	NA		NA		NA		ND	(0.0279)
Indeno(1,2,3-cd)pyrene	[0.96]	NA		NA		NA		ND	(0.0236)
Phenanthrene	[NS]	NA		NA		NA		ND	(0.0362)
Pyrene	[2400]	NA		NA		NA		ND	(0.0198)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	52.9	(0.0439)	38.8	(0.0479)	62	(0.0386)	44	(0.0584)
Cadmium	[80]	0.364 B	(0.218)	0.332 B	(0.237)	0.796 B	(0.191)	< DL	(0.29)
Chromium	[6.6,8x10 ^{4}]	10.6	(0.207)	15.8	(0.226)	7.74	(0.182)	7.18	(0.276)
Silver	[0.73,400]	< DL	(0.139)	< DL	(0.151)	< DL	(0.122)	0.239	(0.185)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	275	(7.52)	59.2	(2.06)	46.3	(1.05)	14.4 S	(0.163)

Table 5.3-1 (Continued)

Location ID		179-B01		179-B01		179-B01		179-B02	
Sample ID		179-B01-02-01		179-B01-03-01		179-B01-04-01		179-B02-01-01	
Beg. Depth-End Depth (ft)		2-4		4-6		6-8		0-2	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		NA		NA		ND	(0.0229)
Anthracene	[2.4x10 ^{4}]	NA		NA		NA		ND	(0.0339)
Benzo(a)anthracene	[.96]	NA		NA		NA		ND	(0.0264)
Benzo(a)pyrene	[.096]	NA		NA		NA		ND	(0.0353)
Benzo(b)fluoranthene	[.96]	NA		NA		NA		ND	(0.0467)
Benzo(g,h,i)perylene	[NS]	NA		NA		NA		ND	(0.0502)
Benzo(k)fluoranthene	[9.59]	NA		NA		NA		ND	(0.0489)
Chrysene	[96]	NA		NA		NA		ND	(0.0441)
Di-n-octylphthalate	[1600]	NA		NA		NA		ND	(0.0229)
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		NA		ND	(0.118)
Fluoranthene	[3200]	NA		NA		NA		ND	(0.0262)
Indeno(1,2,3-cd)pyrene	[0.96]	NA		NA		NA		ND	(0.0393)
Phenanthrene	[NS]	NA		NA		NA		ND	(0.0293)
Pyrene	[2400]	NA		NA		NA		ND	(0.0315)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	60.8	(0.0562)	77.1	(0.0538)	37.4	(0.0551)	41.2	(0.0569)
Cadmium	[80]	< DL	(0.279)	< DL	(0.266)	< DL	(0.273)	< DL	(0.282)
Chromium	[6.6,8x10 ^{4}]	6.43	(0.265)	7.09	(0.253)	5.97	(0.26)	6.68	(0.268)
Silver	[0.73,400]	0.282	(0.178)	< DL	(0.17)	0.207	(0.174)	< DL	(0.18)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	2.29 S	(0.143)	2.28 S	(0.158)	1.84 S	(0.147)	5.38	(0.0718)
Location ID		179-B02		179-B02		179-B02		179-B03	
Sample ID		179-B02-02-01		179-B02-03-01		179-B02-04-01		179-B03-01-01	
Beg. Depth-End Depth (ft)		2-4		4-6		6-8		0-2	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		NA		NA		ND	(0.0225)
Anthracene	[2.4x10 ^{4}]	NA		NA		NA		ND	(0.0334)
Benzo(a)anthracene	[.96]	NA		NA		NA		ND	(0.026)
Benzo(a)pyrene	[.096]	NA		NA		NA		ND	(0.0348)
Benzo(b)fluoranthene	[.96]	NA		NA		NA		ND	(0.046)
Benzo(g,h,i)perylene	[NS]	NA		NA		NA		ND	(0.0495)

Table 5.3-1 (Continued)

Location ID		179-B02		179-B02		179-B02		179-B03	
Sample ID		179-B02-02-01		179-B02-03-01		179-B02-04-01		179-B03-01-01	
Beg. Depth-End Depth (ft)		2-4		4-6		6-8		0-2	
SW8270 - Semivolatile Organics (μg/g) (Continued)									
Benzo(k)fluoranthene	[9.59]	NA		NA		NA		ND	(0.0482)
Chrysene	[96]	NA		NA		NA		0.0167 J	(0.0434)
Di-n-octylphthalate	[1600]	NA		NA		NA		ND	(0.0226)
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		NA		ND	(0.116)
Fluoranthene	[3200]	NA		NA		NA		0.0169 J	(0.0258)
Indeno(1,2,3-cd)pyrene	[0.96]	NA		NA		NA		ND	(0.0387)
Phenanthrene	[NS]	NA		NA		NA		ND	(0.0289)
Pyrene	[2400]	NA		NA		NA		0.0159 J	(0.031)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	38.5	(0.0468)	67.8	(0.0512)	34.7	(0.0544)	50.6	(0.0516)
Cadmium	[80]	< DL	(0.232)	< DL	(0.254)	< DL	(0.27)	0.499 B	(0.256)
Chromium	[$6.6,8x10^4$]	7.18	(0.221)	8.96	(0.241)	5.61	(0.256)	8.36	(0.243)
Silver	[0.73,400]	0.183 B	(0.148)	< DL	(0.162)	< DL	(0.172)	0.178 B	(0.163)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	1.57	(0.0764)	1.46	(0.0727)	0.43	(0.0757)	0.256	(0.00749)
Location ID		179-B03		179-B03		179-B03		179-B04	
Sample ID		179-B03-02-01		179-B03-03-01		179-B03-04-01		179-B04-01-01	
Beg. Depth-End Depth (ft)		2-4		4-6		6-8		0-2	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		NA		NA		ND	(0.0251)
Anthracene	[$2.4x10^4$]	NA		NA		NA		ND	(0.0372)
Benzo(a)anthracene	[.96]	NA		NA		NA		ND	(0.029)
Benzo(a)pyrene	[.096]	NA		NA		NA		ND	(0.0388)
Benzo(b)fluoranthene	[.96]	NA		NA		NA		ND	(0.0513)
Benzo(g,h,i)perylene	[NS]	NA		NA		NA		ND	(0.0551)
Benzo(k)fluoranthene	[9.59]	NA		NA		NA		ND	(0.0537)
Chrysene	[96]	NA		NA		NA		ND	(0.0484)
Di-n-octylphthalate	[1600]	NA		NA		NA		ND	(0.0251)

Table 5.3-1 (Continued)

Location ID		179-B03		179-B03		179-B03		179-B04	
Sample ID		179-B03-02-01		179-B03-03-01		179-B03-04-01		179-B04-01-01	
Beg. Depth-End Depth (ft)		2-4		4-6		6-8		0-2	
SW8270 - Semivolatile Organics (μg/g) (Continued)									
bis(2-Ethylhexyl)phthalate	[50]	NA		NA		NA		ND	(0.13)
Fluoranthene	[3200]	NA		NA		NA		ND	(0.0288)
Indeno(1,2,3-cd)pyrene	[0.96]	NA		NA		NA		ND	(0.0431)
Phenanthrene	[NS]	NA		NA		NA		ND	(0.0322)
Pyrene	[2400]	NA		NA		NA		ND	(0.0345)
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	44.5	(0.0587)	37.7	(0.0548)	73.1	(0.0531)	38.9	(0.0613)
Cadmium	[80]	< DL	(0.291)	< DL	(0.272)	< DL	(0.263)	< DL	(0.304)
Chromium	[6.6,8x10 ^{4}]	6.73	(0.277)	5.82	(0.258)	8.79	(0.25)	7.84	(0.289)
Silver	[0.73,400]	0.238 B	(0.186)	< DL	(0.173)	0.392 B	(0.168)	0.55 B	(0.194)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	4.91	(0.0766)	0.494	(0.0769)	1.62	(0.072)	5.22	(0.0823)
Location ID		179-B04		179-B05		179-B05		179-B05	
Sample ID		179-B04-02-01		179-B05-01-01		179-B05-02-01		179-B05-03-01	
Beg. Depth-End Depth (ft)		2-4		0-2		2-4		4-6	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		ND	(0.0184)	NA		NA	
Anthracene	[2.4X10 ^{4}]	NA		ND	(0.025)	NA		NA	
Benzo(a)anthracene	[.96]	NA		ND	(0.0234)	NA		NA	
Benzo(a)pyrene	[.096]	NA		ND	(0.0295)	NA		NA	
Benzo(b)fluoranthene	[.96]	NA		ND	(0.0298)	NA		NA	
Benzo(g,h,i)perylene	[NS]	NA		ND	(0.0287)	NA		NA	
Benzo(k)fluoranthene	[9.59]	NA		ND	(0.0375)	NA		NA	
Chrysene	[96]	NA		ND	(0.0309)	NA		NA	
Di-n-octylphthalate	[1600]	NA		ND	(0.0339)	NA		NA	
Fluoranthene	[3200]	NA		ND	(0.0266)	NA		NA	
Indeno(1,2,3-cd)pyrene	[0.96]	NA		ND	(0.0225)	NA		NA	
Phenanthrene	[NS]	NA		ND	(0.0346)	NA		NA	
Pyrene	[2400]	NA		ND	(0.0189)	NA		NA	
bis(2-Ethylhexyl)phthalate	[50]	NA		ND	(0.0633)	NA		NA	

Table 5.3-1 (Continued)

Location ID		179-B04		179-B05		179-B05		179-B05	
Sample ID		179-B04-02-01		179-B05-01-01		179-B05-02-01		179-B05-03-01	
Beg. Depth-End Depth (ft)		2-4		0-2		2-4		4-6	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	54.6	(0.0475)	39.9	(0.0529)	56	(0.058)	22.9	(0.0498)
Cadmium	[80]	< DL	(0.236)	< DL	(0.262)	< DL	(0.287)	< DL	(0.247)
Chromium	[6.6,8x10 ^{4}]	4.93	(0.224)	5.73	(0.249)	8.95	(0.273)	4.11	(0.235)
Silver	[0.73,400]	< DL	(0.15)	< DL	(0.167)	0.286	(0.183)	< DL	(0.158)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	0.531	(0.0584)	6.07 S	(0.153)	4.44 S	(0.153)	2.48 S	(0.16)
Location ID		179-B05		179-B06		179-B06		179-B06	
Sample ID		179-B05-04-01		179-B06-01-01		179-B06-02-01		179-B06-03-01	
Beg. Depth-End Depth (ft)		12-14		0-2		2-4		4-6	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		0.0234	(0.017)	NA		NA	
Anthracene	[2.4x10 ^{4}]	NA		0.024	(0.0231)	NA		NA	
Benzo(a)anthracene	[.96]	NA		0.119	(0.0216)	NA		NA	
Benzo(a)pyrene	[.096]	NA		0.0985	(0.0273)	NA		NA	
Benzo(b)fluoranthene	[.96]	NA		0.17 F	(0.0276)	NA		NA	
Benzo(g,h,i)perylene	[NS]	NA		0.0232 J	(0.0266)	NA		NA	
Benzo(k)fluoranthene	[9.59]	NA		0.17 F	(0.0347)	NA		NA	
Chrysene	[96]	NA		0.152	(0.0286)	NA		NA	
Di-n-octylphthalate	[1600]	NA		1.02	(0.0313)	NA		NA	
bis(2-Ethylhexyl)phthalate	[50]	NA		0.281	(0.0585)	NA		NA	
Fluoranthene	[3200]	NA		0.23	(0.0246)	NA		NA	
Indeno(1,2,3-cd)pyrene	[0.96]	NA		0.0351	(0.0208)	NA		NA	
Phenanthrene	[NS]	NA		0.124	(0.032)	NA		NA	
Pyrene	[2400]	NA		0.206	(0.0175)	NA		NA	

Table 5.3-1 (Continued)

Location ID		179-B05		179-B06		179-B06		179-B06	
Sample ID		179-B05-04-01		179-B06-01-01		179-B06-02-01		179-B06-03-01	
Beg. Depth-End Depth (ft)		12-14		0-2		2-4		4-6	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	114	(0.0443)	50.1	(0.0474)	55	(0.0568)	19.1	(0.0493)
Cadmium	[80]	< DL	(0.219)	0.57 B	(0.235)	0.578 B	(0.281)	< DL	(0.245)
Chromium	[6.6,8x10 ^{4}]	14.3	(0.209)	10.7	(0.223)	8.71	(0.268)	3.88	(0.233)
Silver	[0.73,400]	< DL	(0.14)	0.233	(0.15)	0.382	(0.179)	< DL	(0.156)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	5.98 S	(0.133)	288 S	(7.25)	28.6 S	(0.73)	0.782 S	(0.142)
Location ID		179-B06		179-B07		179-B07		179-B07	
Sample ID		179-B06-04-01		179-B07-01-01		179-B07-02-01		179-B07-03-01	
Beg. Depth-End Depth (ft)		12-14		4-6		6-8		8-10	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		ND	(0.019)	NA		NA	
Anthracene	[2.4x10 ^{4}]	NA		ND	(0.0257)	NA		NA	
Benzo(a)anthracene	[.96]	NA		ND	(0.0241)	NA		NA	
Benzo(a)pyrene	[.096]	NA		ND	(0.0304)	NA		NA	
Benzo(b)fluoranthene	[.96]	NA		ND	(0.0307)	NA		NA	
Benzo(g,h,i)perylene	[NS]	NA		ND	(0.0296)	NA		NA	
Benzo(k)fluoranthene	[9.59]	NA		ND	(0.0386)	NA		NA	
Chrysene	[96]	NA		ND	(0.0319)	NA		NA	
Di-n-octylphthalate	[1600]	NA		ND	(0.0349)	NA		NA	
bis(2-Ethylhexyl)phthalate	[50]	NA		ND	(0.0651)	NA		NA	
Fluoranthene	[3200]	NA		ND	(0.0274)	NA		NA	
Indeno(1,2,3-cd)pyrene	[0.96]	NA		ND	(0.0232)	NA		NA	
Phenanthrene	[NS]	NA		ND	(0.0356)	NA		NA	
Pyrene	[2400]	NA		ND	(0.0195)	NA		NA	

Table 5.3-1 (Continued)

Location ID		179-B06		179-B07		179-B07		179-B07	
Sample ID		179-B06-04-01		179-B07-01-01		179-B07-02-01		179-B07-03-01	
Beg. Depth-End Depth (ft)		12-14		4-6		6-8		8-10	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	18.8	(0.0554)	47	(0.058)	35	(0.0509)	19.2	(0.0509)
Cadmium	[80]	0.29 B	(0.275)	< DL	(0.288)	< DL	(0.252)	< DL	(0.252)
Chromium	[6.6,8x10 ^{4}]	4.41	(0.261)	5.75	(0.273)	5.96	(0.24)	3.9	(0.24)
Silver	[0.73,400]	< DL	(0.175)	< DL	(0.183)	< DL	(0.161)	< DL	(0.161)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	0.56 S	(0.149)	0.933 SB	(0.156)	1.42 SB	(0.139)	0.616 SB	(0.141)
Location ID		179-B07		179-B08		179-B08		179-B08	
Sample ID		179-B07-04-01		179-B08-01-01		179-B08-02-01		179-B08-03-01	
Beg. Depth-End Depth (ft)		14-16		0-2		2-4		4-6	
SW8270 - Semivolatile Organics (μg/g)									
Acetophenone	[8000]	NA		ND	(0.0185)	NA		NA	
Anthracene	[2.4x10 ^{4}]	NA		ND	(0.0251)	NA		NA	
Benzo(a)anthracene	[.96]	NA		ND	(0.0235)	NA		NA	
Benzo(a)pyrene	[.096]	NA		ND	(0.0297)	NA		NA	
Benzo(b)fluoranthene	[.96]	NA		ND	(0.03)	NA		NA	
Benzo(g,h,i)perylene	[NS]	NA		ND	(0.0288)	NA		NA	
Benzo(k)fluoranthene	[9.59]	NA		ND	(0.0377)	NA		NA	
Chrysene	[96]	NA		ND	(0.0311)	NA		NA	
Di-n-octylphthalate	[1600]	NA		ND	(0.034)	NA		NA	
bis(2-Ethylhexyl)phthalate	[50]	NA		ND	(0.0635)	NA		NA	
Fluoranthene	[3200]	NA		ND	(0.0267)	NA		NA	
Indeno(1,2,3-cd)pyrene	[0.96]	NA		ND	(0.0226)	NA		NA	
Phenanthrene	[NS]	NA		ND	(0.0347)	NA		NA	
Pyrene	[2400]	NA		ND	(0.019)	NA		NA	

Table 5.3-1 (Continued)

Location ID		179-B07		179-B08		179-B08		179-B08	
Sample ID		179-B07-04-01		179-B08-01-01		179-B08-02-01		179-B08-03-01	
Beg. Depth-End Depth (ft)		14-16		0-2		2-4		4-6	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	21.2	(0.0538)	38.1	(0.0557)	46.4	(0.0503)	46.7	(0.0424)
Cadmium	[80]	< DL	(0.267)	< DL	(0.276)	< DL	(0.249)	< DL	(0.21)
Chromium	[6.6,8x10 ^{4}]	5.39	(0.254)	5.3	(0.262)	5.97	(0.237)	6.35	(0.2)
Silver	[0.73,400]	< DL	(0.17)	0.6	(0.176)	< DL	(0.159)	0.178	(0.134)
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	1.36 SB	(0.138)	12.5 S	(0.317)	1.56 SB	(0.141)	2.05 S	(0.128)
Location ID		179-B08		179-BPH01		179-BPH02		179-BPH03	
Sample ID		179-B08-04-01		179-BPH-01		179-BPH-02		179-BPH-03	
Beg. Depth-End Depth (ft)		10-12		0-1		0-1		0-1	
SW6010 - Metals (mg/kg)									
Barium	[84.36,5600]	33.4	(0.056)	NA		NA		NA	
Cadmium	[80]	< DL	(0.277)	NA		NA		NA	
Chromium	[6.6,8x10 ^{4}]	6.13	(0.264)	NA		NA		NA	
Silver	[0.73,400]	0.555 B	(0.177)	NA		NA		NA	
SW7421 - Lead (mg/kg)									
Lead	[12.3,500]	3.54 S	(0.133)	NA		NA		NA	

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
NS = Not specified.
NA = Not analyzed.
ND = Not detected.
DL = Detection limit.
B = Analyte detected in associated blank analyses.
S = Analyte concentration obtained using the MSA.
J = Estimated concentrations, analyte detected at concentration below the detection limit.
F = Benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. The result reported is the sum of both compounds.

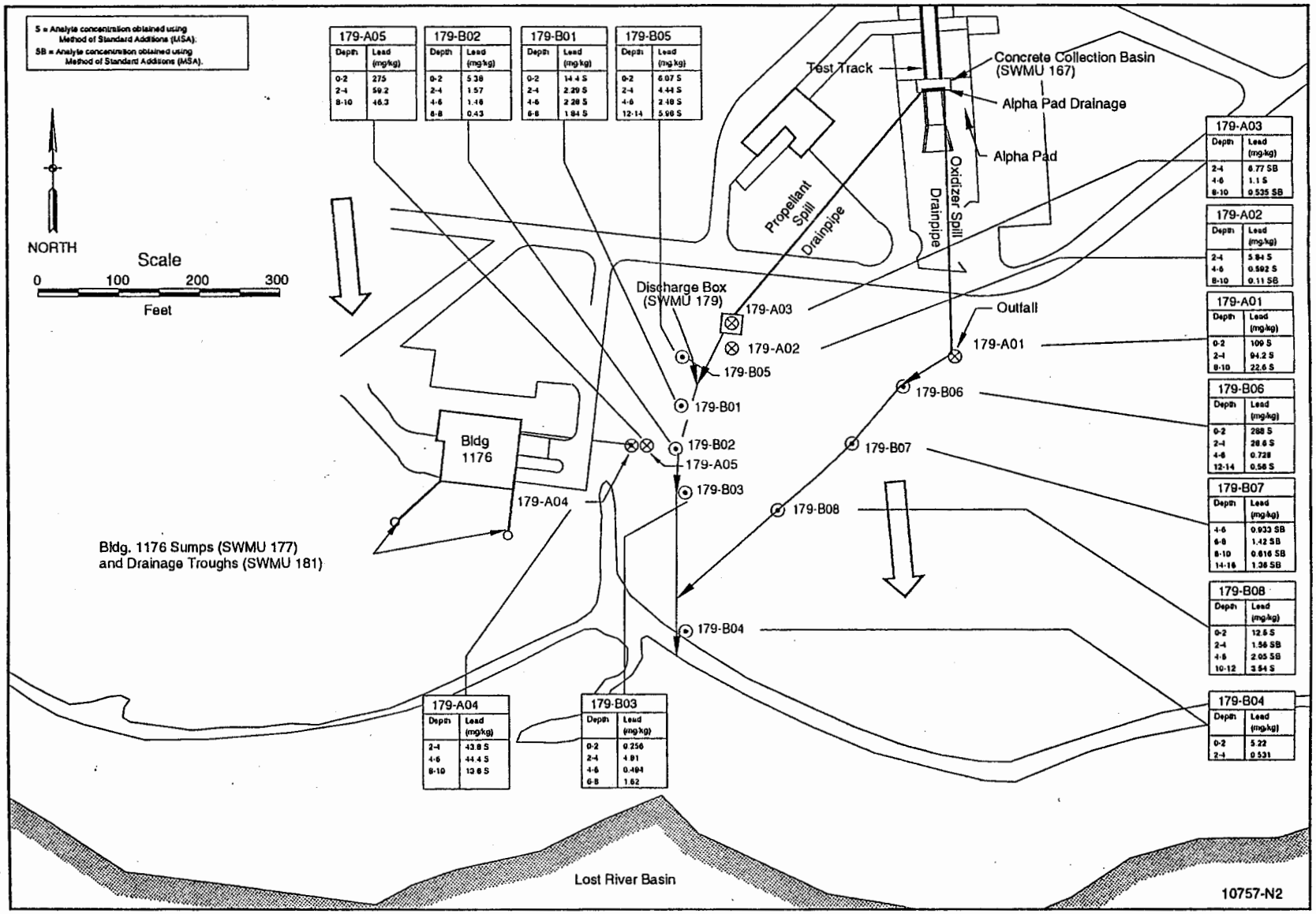


Figure 5.3-2. Occurrences of Lead in the Soil at SWMU 179

Table 5.3-2
Analytical Results for Soil Samples—SWMU 181

Location ID		181-B01		181-B02	
Sample ID		181-B01-01-01		181-B02-01-01	
Beg. Depth-End Depth (ft)		6-8		8-10	
SW8270 - Semivolatile Organics (μg/g)					
4-Chloro-3-methylphenol	[NS]	ND	(0.0169)	4.25	(0.522)
p-Chloroaniline	[3.2×10^{5}]	ND	(0.0396)	1.69	(1.23)
bis(2-Ethylhexyl)phthalate	[50]	ND	(0.112)	19.7 B	(3.46)
2-Methylnaphthalene	[NS]	ND	(0.0245)	6.05	(0.757)
Naphthalene	[NS]	ND	(0.0325)	1.91	(1.01)
SW8270 - Semivolatile Organics TICs (μg/g)					
Ethylmethylbenzene	[NS]	ND	(NS)	50	(NS)
Trimethylbenzene	[NS]	ND	(NS)	20	(NS)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
NS = Not specified.
NA = Not analyzed.
ND = Not detected.
B = Analyte detected in associated blank analyses.

No semivolatile organic compounds were detected at concentrations above trigger criteria. Semivolatile organic compounds were detected at concentrations below detection limits in several borings. Naphthalene, p-chloroaniline, 2-methylnaphthalene, and 4-chloro-3-methylphenol were detected in samples from 181-B02, but at concentrations below trigger criteria. Several tentatively identified compounds (TICs) were also detected but their identity and concentration are uncertain.

Barium, cadmium, chromium, silver, and lead were detected at concentrations above UTLs for background in several samples. However, none of the detected concentrations of metals exceeded trigger criteria. In samples from potentially affected areas, pH ranged from 7.4 to 7.47. In background samples pH ranged from 7.54 to 8.11.

Groundwater—Samples collected using Geoprobe were screened in the field for chlorinated volatile organic compounds using an on-site gas chromatograph. The eight samples with the highest concentrations of TCE were sent to the laboratory for confirmation analysis. Summary analytical results are presented in Table 5.3-3 and 5.3-4. Figure 5.3-3 graphically presents trichloroethene concentrations in the groundwater. Several halogenated volatile organic compounds were detected at concentrations at or below detection limits; however, many were not confirmed so their presence is uncertain. 1,1-Dichloroethane was detected in one sample at a concentration below trigger criteria.

Groundwater samples from two existing monitor wells were analyzed for semivolatile organic compounds. All that was detected was a tentatively identified compound (TIC), and its specific identity and concentration are uncertain.

5.3.3 Risk Assessment Results

The previous human health risk assessment for IRP Site 39 (SWMUs 165, 177, 179, and 181) indicated that risks were below levels considered unacceptable (Radian, 1992b), and the human health risk assessment was not updated. The environmental assessment (Radian, 1992b) indicated that modeled uptake of lead and cadmium from the soil had the potential to cause adverse environmental effects; and that beryllium, lead, and zinc in the surface water of Lost River could adversely effect aquatic organisms, including the state endangered White Sands pupfish.

In this investigation, terrestrial biota samples and surface water samples were collected to remove the uncertainty associated with the uptake model and the groundwater model used in the previous environmental assessment (Radian, 1992b). Comparison of plant and jackrabbit tissue samples with concentrations known to cause adverse effects in other species indicated a low potential for adverse ecological effects to terrestrial organisms. An aquatic ecological quotient based on measured concentrations of contaminants in surface water also indicated that no adverse effects are expected from contaminants present at the site.

5.3.4 Conclusions

Analytical results indicate that there are no constituents, including unconventional fuels, in the soil at concentrations above trigger criteria, and risk assessment results indicate that the area does not pose a risk to the black-tailed jackrabbit. The previous risk assessment determined that the area did not pose a risk to human receptors.

Table 5.3-3
Analytical Results for Groundwater Samples—SWMU 177

Location ID		177-H01		177-H02		177-H03		177-H04	
Sample ID		177-H01-01-01		177-H02-01-01		177-H03-01-01		177-H04-01-01	
SW8010 - Halogenated Volatile Organics (µg/L)									
1,1,1-Trichloroethane	[NS]	3.73 KBJ	(8.3)	0.842 KBJ	(8.3)	418	(36.8)	1.76 KBJ	(8.3)
1,1-Dichloroethane	[3500]	ND	(1.11)	ND	(1.11)	65.4	(5.55)	ND	(1.11)
Chloroethane	[NS]	ND	(4)	ND	(4)	ND	(20)	0.442 KJ	(5.75)
Chloromethane	[26.92]	2.38 KJ	(7.55)	ND	(7.55)	ND	(37.8)	0.761 KJ	(7.55)
Tetrachloroethene	[6.73]	ND	(3.75)	ND	(3.75)	2.19 KJ	(19)	0.353 KJ	(3.8)
Trichloroethene	[NS]	245	(3.66)	597	(3.66)	2730	(18.3)	324	(3.66)
Vinyl chloride	[0.018]	ND	(7.55)	3.83 KJ	(7.55)	ND	(37.8)	ND	(7.55)
trans-1,3-Dichloropropene	[0.19]	0.492 KJ	(3.6)	ND	(3.6)	ND	(18)	ND	(3.6)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

Results greater than trigger criteria are shaded.

( ) = Detection limit.
B = Analyte detected in associated blank analyses.
J = Analyte detected at concentration below the detection limit.
K = Peak did not meet method identification criteria. Analyte not detected on other GC column.
ND = Not detected.
NS = Not specified.

Table 5.3-4
Analytical Results for Groundwater Samples—SWMU 179

Location ID	179-H01	179-H02	179-H03	179-H04
Sample ID	179-H01-01-01	179-H02-01-01	179-H03-01-01	179-H04-01-01
SW8010 - Halogenated Volatile Organics (µg/L)				
Trichloroethene [NS]	38.8 (3)	27.6 (3)	< DL (3)	4.5 (3)

Note: The UTLs and the trigger criteria are presented, respectively, in brackets [ ]; [ ] = trigger criteria for organics; [,] = UTL, trigger criteria for inorganics.

( ) = Detection limit.
DL = Detection limit.
NS = Not specified.

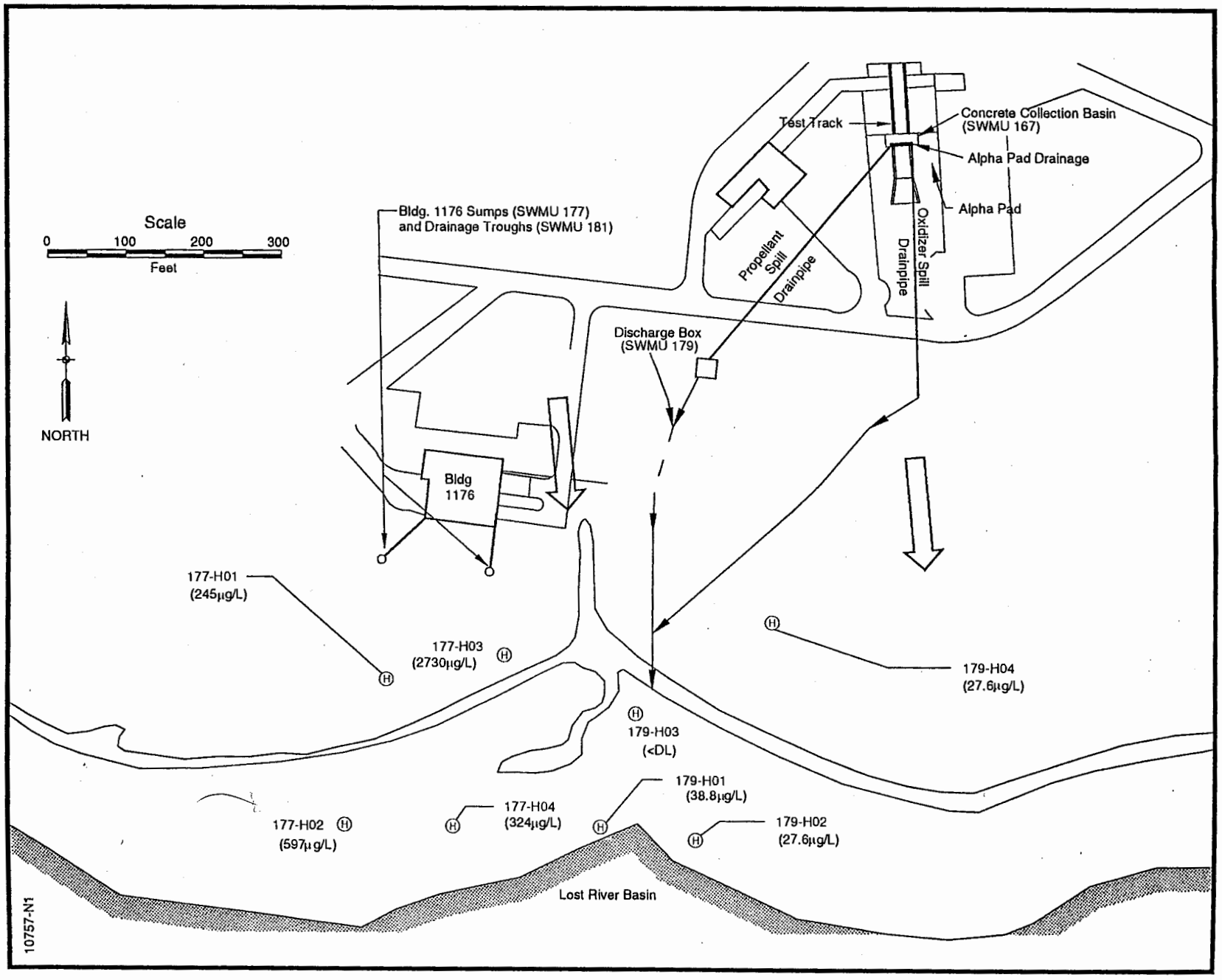


Figure 5.3-3. Occurrences of Trichl- -thene in Groundwater at SWMUs 177 and 179

Elevated TCE concentrations in groundwater detected during the Phase I investigation extends, in decreasing concentrations, toward the Lost River Basin. The highest concentrations are downgradient of Building 1176. Building 1176 appears to be the source of TCE. TCE concentrations downgradient of the test track were lower than those downgradient of Building 1176, and TCE was not detected by the on-site GC in the samples from the easternmost Geoprobe sampling locations. Collecting samples from further out in Lost River Basin was not technically feasible for this investigation, but the trend and approximate extent of TCE contamination have been defined with the existing samples. Since groundwater at Holloman AFB is not potable, groundwater contamination does not have to be remediated unless free product is present.

The extent of groundwater contamination has been established. Fifteen hydropunch samples and four monitoring wells were installed under the Table 1 Phase I RFI and the Table 2 Phase I RFI. Trichloroethene, the groundwater COC for this site, was at a maximum concentration of 2730 µg/l near SWMU 177 (the interpreted source of the trichloroethene) to not detected downgradient of SWMU 177. Excluding the not detected sample, two other locations downgradient of SWMU 177 had TCE detections at 32 µg/l and 39 µg/l, two orders of magnitude less than the concentration at SWMU 177, indicating the source is SWMU 177 and the plume has been characterized.

5.3.5 Recommendations

NFA was recommended in the 1994 Draft Final Phase I Table 2 RFI Report. The following was not included in the 1994 Draft Final Phase I Table 2 RFI Report. After further evaluation, this site is recommended for CNFA; the condition of NFA is long-term groundwater monitoring (LTM) for volatile organic compounds. These SWMUs will be sampled in September 1997 as part of Holloman AFB's biennial basewide LTM program.

[This page intentionally left blank.]

Section 6
TABLE 2 SWMUs INVESTIGATED UNDER OTHER PROGRAMS

This section contains brief descriptions of Table 2 SWMUs that have been addressed in other investigations or do not require investigation at this time. Sections 6.1 through 6.4 contain summaries of SWMU features and histories.

[This page intentionally left blank.]

6.1 SWMU 75—DRMO Waste Storage Area

SWMU 75 is on Table 2 of Holloman AFB's HSWA permit. The SWMU was activated in 1980 and is currently in use. No investigation was planned for this SWMU because existing closure and post-closure contingency plans are included in the RCRA Part B permit and will be followed at the time of closure. A request for a Class III permit modification to remove this SWMU from the RFI will be prepared and submitted by the Base.

Unit Description: The facility is currently permitted as a regulated unit under the Base's RCRA permit as a container storage area. The storage area is divided into 18 compartments in approximately 5000 ft^2 with a 1200-ft^2 staging area. The unit is designed to hold 512 containers or 28,160 gal. of waste. The area is underlain by a steel-reinforced concrete pad with 6-in concrete curbing. The unit drains through a 180-gal. catch basin that empties into the sewer system.

Waste Description: Wastes managed in this unit include the following EPA waste designations: D001, D002, D007, D008, F001, F002, F003, F005, F007, F008, F017, U002, U003, U012, U019, U022, U036, U044, U089, U154, U159, U167, U188, U220, U226, U228, U239, P012, P035, and P106. These wastes are generated and accumulated in various designated areas around the Base and transported to the unit.

Release History: In the past, small oil spills have been reported but no releases have been observed.

[This page intentionally left blank.]

6.2 SWMU 101—Building 101 (Old Main Base) Landfill

SWMU 101 is on Table 2 of Holloman AFB's HSWA permit. The landfill was in operation from 1942 to 1958. Extensive investigations have occurred at this SWMU, including a records search in 1983, an RI in 1987, more RI field activities in 1988, and a baseline risk assessment in 1989 (Walk, Haydel, and Associates, Inc., 1989). The baseline risk assessment concluded that the SWMU poses no significant risk to public health or the environment; therefore, no investigation of the unit was planned for the Table 2 RFI.

Physical Features: The landfill is located near Building 121, the former 4th Satellite Communication Squadron (SPACECOM).

Description: The landfill occupies approximately 20 acres and is inactive.

Waste Description: When in operation, the landfill received domestic solid waste from the Base and possibly drums containing waste oils and solvents. The landfill also received ash from a Base incinerator located in the area.

Release History: Past investigation of the landfill, including a baseline risk assessment conducted in 1989, concluded that SWMU 101 poses no significant risk to public health or the environment. A decision document (Walk, Haydel and Associates, Inc., 1990) signed in April 1993 concluded that further investigation or remedial measures were not appropriate.

[This page intentionally left blank.]

6.3 SWMU 141—Pad 9 Drainage Pit, Drain, and Drainline

SWMU 141 is on Table 2 of Holloman AFB's HSWA permit. The washrack was in use in the late 1940s and early 1950s. This SWMU is also IRP Site 27. The investigation for this site was performed prior to the Table 2 Phase I RFI. The results of the investigation are presented in the *Preliminary Assessment and Site Investigation Report: Investigation of Four Waste Sites, Holloman AFB, New Mexico* (Radian, 1993). In this report, NFA was recommended for the SWMU. No additional sampling was conducted for the Table 2 Phase I RFI.

Physical Features: The Pad 9 washrack area is located across Taxiway F, to the east of Pad 8, near Building 882.

Unit Description: The SWMU consists of a sloping circular pad approximately 100 ft in diameter, a buried drainage pipe about 200 ft in length, and a former, unlined, waste pit approximately 35 ft in diameter and 12 ft deep. The washrack was reportedly used to wash drones and manned aircraft that had flown through clouds of nuclear blast materials in the late 1940s and early 1950s. All runoff from the washrack drained into the unlined pit directly south of the pad area. The pit was backfilled in the late 1970s.

Waste Description: Rinsewater, possibly contaminated with radioactivity and fuels.

Release History: Some evidence of fuel contamination in the former drainage pit was found during the investigation. However, levels of contamination were not sufficient to require further investigation, and the site will be closed out.

[This page intentionally left blank.]

6.4 SWMU 184—Wastewater Recirculation Line

SWMU 184 is on Table 2 of Holloman AFB's HSWA permit. The period of operation for and the current status of the wastewater recirculation line is unknown. No investigation was planned as part of the Table 2 Phase I RFI, since closure of SWMU 184 will occur as part of sewage lagoon closure in approximately two to three years. SWMU 184 will be investigated as part of the sewage lagoon closure investigation and the results will be submitted to the EPA in a separate report.

Physical Features: The wastewater recirculation line (SWMU 184) is located immediately to the east of Sewage Treatment Ponds B and F.

Unit Description: The wastewater recirculation line runs between Pond F and the splitter box located near Pond B. The splitter box divides the flow between Ponds A and B. The purpose of the recirculation line is to increase the biological oxygen demand (BOD) content in the sewage in Ponds A and B. The age, construction, and integrity of the line are unknown.

Waste Description: While in operation, wastewater potentially containing sanitary wastes and de minimis quantities of dissolved hydrocarbons, solvents, industrial cleaners, paint stripper, methanol, acetone, and formaldehyde were processed by the wastewater treatment system. However, only de minimis quantities of these wastes were discharged to the wastewater recirculation line via the Base sewer system (SWMU 183) and the wastewater treatment lagoons (Ponds A-G). Based on the waste status determination for the wastes contained in the treatment lagoons provided by NMED and EPA, Region VI, the wastes managed in the wastewater recirculation line are not listed waste.

Release History: There is no record of a release at the SWMU. The site will be closed with the sewage lagoons and NFA is required.

[This page intentionally left blank.]

Section 7
REFERENCES

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Ethylbenzene* (Draft). October 1989.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for 1,1-Dichloroethene*. December 1989.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Benzo(a)Pyrene*. May 1990.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Aldrin/Dieldrin* (Draft). February 1991a.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Barium* (Draft). February 1991b.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Chromium*. October 1991a.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Heptachlor/Heptachlor Epoxide* (Draft). October 1991b.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Trichloroethene* (Draft). October 1991c.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Arsenic* (Draft). February 1992a.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Benzene* (Draft). February 1992b.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Methylene Chloride* (Draft). February 1992c.

Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Alpha-, Beta-, Gama-, Delta-Hexachlorocyclohexane*. October 1992.

Atkinson, R. *White Sands; wind, sand and time*. Tucson, Arizona: Southwest Parks and Monument Association. 1987.

Baes, C.F. III, Sharp, R.D., Sjoreen, A.L., & Shore, R.W. *A Review and Analysis of Parameters for Assessing Transport of Environmentally Released Radionuclides Through Agriculture*. Oak Ridge National Laboratory, ORNL 5786, DE 85000287. September 1984.

Behler, John L., & King, Wayne F. *The Audubon Society Field Guide to North American Reptiles and Amphibians*. New York: Alfred A. Knopf. 1979.

Bureau of Land Management. "Revised Standard Habitat Sites for New Mexico." 9 December 1983. Letter. Santa Fe, NM: U.S. Department of the Interior.

Bureau of Land Management. "Project Special Status Species List 1991. Otero County, New Mexico." Computer Listing. Santa Fe, NM: U.S. Department of the Interior.

Burton, Jerry. *White Sands Pupfish Conservation Plan* (Draft). Albuquerque, NM: U.S. Fish and Wildlife Service. 1991.

Clement Associates, Inc. *Multipathway Health Risk Assessment Input Parameters Guidance Document*. Prepared for the South Coast Air Quality Management District, El Monte, CA. June 1988.

Cole, Richard A. et al. *Limnology of a Shallow Brackish Hypereutrophic Reservoir in Southern New Mexico*. Las Cruces, NM: New Mexico State University. May 1984.

Computrac, Inc. "Delisting Proposal for Holloman AFB Sewage Treatment Lagoons." 28 August 1986.

Cunningham, R. *50 Common Birds of the Southwest*. Tucson, AZ: Southwest Parks and Monuments Association. 1990.

Davis, W.B. *The Mammals of Texas*. Texas Parks and Wildlife Department Bulletin No. 41. Austin, TX. 1960.

Dean, J.H., Murray, M.J., & Ward, E.C. Toxic Response of the Immune System in: M.O. Amdur, J.D. Doull, & G.D. Klaassen (Eds.). *Casarett and Doull's Toxicology: The Basic Science of Poisons*, 4th ed. New York: Macmillan. 1991.

DeSesso, J.M., & Price, F.T. "General Guidance for Ecological Risk Assessment at Air Force Installations." The MITRE Corporation, Brooks AFB, TX. December 1990.

Dodge, N., & Janish, J. *Flowers of the Southwest Deserts*. Tucson, AZ: Southwest Parks and Monuments Association. 1985.

Earle, H.W. *Cacti of the Southwest*. Tempe, AZ: Rancho Arroyo Book Distributor. 1990.

Findley, J.S. *The Natural History of New Mexican Mammals*. Albuquerque, NM: University of New Mexico Press. 1987.

Findley, J.S., Harris, A.H., Wilson, D.E., & Jones, C. *Mammals of New Mexico*. Albuquerque, NM: University of New Mexico Press. 1975.

Gilbert, Richard O. *Statistical Methods for Environmental Pollution Monitoring*. New York: Van Nostrand Reinhold. 1987.

Grzimek, Dr. H.C. Bernhard (Ed.). *Grzimek's Animal Life Encyclopedia*. New York: Van Nostrand Reinhold. 1973.

Hansen, L.G., & Chaney, R.L. "Environmental and Food Chain Effects of Agricultural Use of Sewage Sludges." In Hodgson, Ernest (Ed.), *Reviews in Environmental Toxicology, Vol. 1*. New York: Elsevier Science. 1984.

Helsel, D.R. "Less than Obvious. Statistical Treatment of Data Below the Detection Limit." *Environmental Science Technology*. Vol 24, No. 12. 1990.

Hicks, William Warren et al. "Ecological Assessment of Hazardous Wastes Sites: A Field and Laboratory Reference Document." Corvalis, OR: U.S. Environmental Protection Agency, EPA/600/3-89/013. March 1989.

Klassen, C.D., Amdur, M.O., & Doull, J. (Eds.). *Casarett and Doull's Toxicology: The Basic Science of Poisons*, 3rd ed. New York: Macmillan. 1986.

Lambert, D., Peterson, B., & Terpenning, I. "Nondetects, Detection Limits, and the Probability of Detection." *Journal of the American Statistical Association*. Vol. 86, No. 414. June 1991.

McFarland, C. (personal communication, 15 December 1989). U.S. Environmental Protection Agency, Corvalis Environmental Research Laboratory.

Mengel, K., & Kirby, E.A. *Principles of Plant Nutrition*. Worblaufen-Bern, Switzerland: International Potash Institute. 1978.

Mexican Wolf Recovery Team. *Mexican Wolf Recovery Plan*. Denver, CO: U.S. Fish and Wildlife Service. 1982.

Newman, M.C., Dixon, P.M., Looney, B.B., & Pinder, J.E., III. "Estimating the Mean and Variance for Environmental Samples with Below Detection Limit Observations." *Water Resources Bulletin*. American Water Resources Association. Vol. 25, No. 4. August 1989.

New Mexico Department of Game and Fish. *Handbook of Species Endangered in New Mexico*. Santa Fe, NM: New Mexico Department of Game and Fish. 30 November 1990.

New Mexico Native Plant Protection Advisory Committee. *A Handbook of Rare and Endemic Plants of New Mexico*. Albuquerque, NM: University of New Mexico Press. 1984.

Olin, G., & Thompson, D. *Mammals of the Southwest Deserts*. Tucson, AZ: Southwest Parks and Monuments Association. 1988.

Paustenbach, D.J. "The Health Hazards Posed by Chromium-Contaminated Soils in Residential and Industrial Areas: Conclusions of an Expert Panel." *Regulatory Toxicology and Pharmacology*, 13: 195-222. 1991.

Polishuk, Z.W., Wasserman, D., & Wasserman, M. "Organochlorine Compounds in Mother and Fetus During Labor." *Environmental Research*, 13: 278-284. 1977.

Radian Corporation. *Chemical Data Acquisition Plan (CDAP) Investigation, Study and Recommendation for 29 Waste Sites Holloman Air Force Base, New Mexico*. Volume I. Austin, TX. July 1991.

Radian Corporation. *Site Safety and Health Plan Investigation, Study and Recommendation for 29 Waste Sites, Holloman Air Force Base, New Mexico*. Austin, TX. August 1991.

Radian Corporation. *Remedial Investigation (RI) Report. Investigation, Study, and Recommendation for 29 Waste Sites*. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1992a.

Radian Corporation. *Risk Assessment (RA) Report for the Remedial Investigation. Investigation, Study, and Recommendation for 29 Waste Sites*. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1992b.

Radian Corporation. *Base-Wide Background Study-Sewage Lagoons and Lakes Investigation, Holloman Air Force Base*. Prepared for 49 CES/CEV and HQ ACC/DEVC. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1993a.

Radian Corporation. *Management Action Plan, Holloman Air Force Base,* Prepared for 49 CES/CEV and HQ ACC/DEVC. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1993b.

Radian Corporation. *Phase 1-Groundwater Assessment Monitoring Report, Sewage Lagoons and Lakes Investigation,* Prepared for 49 CES/CEV and HQ ACC/DEVC. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1993c.

Radian Corporation. *RCRA Facility Investigation, Holloman Air Force Base, New Mexico-Table 2 Phase I Work Plan, Vol. I.* Prepared for 49 CES/CEV and HQ ACC/DEVC. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1993d.

SAS Institute Inc. *SAS/STAT User's Guide, Version 6, Fourth Edition, Volume 2*, Cary, NC. 1989.

Shapiro, S. S., & Wilk, M. B. "An Analysis of Variance Test for Normality (complete samples)," *Biometrika*, 52, 591-611. 1965.

Sirrine Environmental Consultants. *Ecological Assessment for Holloman Air Force Base, Otero County, New Mexico. Final Report*. Houston, TX. 1991.

Stoddart, L.A., Smith, A.D., & Box, T.W. *Range Management*. New York: McGraw-Hill. 1975.

Taylor, R.W., & Allinson, D.W. "Influence of Lead, Cadmium, and Nickel on the Growth of *Medicago sativa* (L.). *Plant Soil* 60(2): 223-36. 1981.

Travis, C.C., & Arms, A.O. "Bioconcentration of Organics in Beef, Milk, and Vegetation." *Environmental Science and Technology* 22(3): 271-274. 1988.

U.S. Environmental Protection Agency. *Recommendations for and Documentation of Biological Values for Use in Risk Assessment*. EPA/600/6-87/008. February 1988.

U.S. Environmental Protection Agency. *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A)*. EPA/540/1-89/002. Office of Emergency and Remedial Response, Washington, D.C. 1989.

U.S. Environmental Protection Agency. *Health Effects Assessment Summary Tables* (HEAST). Annual FY-1991. Office of Research and Development. OERR-9200.6-303 (91-1). January 1991.

U.S. Environmental Protection Agency. *Integrated Risk Information System (IRIS)*. January 1992.

U.S. Environmental Protection Agency. *Health Effects Assessment Summary Tables* (HEAST). Annual FY-1992. Office of Research and Development. OERR-9200.6-303 (92-2). March 1992.

U.S. EPA. *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities: Addendum to Interim Final Guidance*, Office of Solid Waste, Washington D.C. 1992.

U.S. Environmental Protection Agency. *Health Effects Assessment Summary Tables* (HEAST). Annual FY-1993. Office of Research and Development. OERR-9200.6-303 (93-1). March 1993.

U.S. Environmental Protection Agency. *Drinking Water Regulations and Health Advisories*. May 1993.

U.S. Environmental Protection Agency. *Integrated Risk Information System (IRIS)*. April 1994.

Vines, R.A. *Trees, Shrubs, and Woody Vines of the Southwest*. Austin, TX: University of Texas Press. 1960.

Walk, Haydel, & Associates. *Installation Restoration Program Remedial Investigation Report for Holloman AFB, New Mexico*. U.S. Army Corps of Engineers, Omaha District, Omaha, NB. 1989.

Wang, Rhode G., Knaak, James B., & Maibach, Howard I. *Health Risk Assessments, Dermal and Inhalation Exposure and Absorption of Toxicants*. Boca Raton, FL: CRC Press. 1993.

Woodward Clyde

File: 22-B-2-B

PHASE I RCRA FACILITY INVESTIGATION REPORT

TABLE 2 SOLID WASTE MANAGEMENT UNITS

VOLUME II

Prepared for:

49 CES/CEV
Holloman Air Force Base, NM

Prepared by:

Radian Corporation
8501 N. Mopac Blvd.
Austin, TX 78759

Under Contract No. DACA45-93-D-0027
with
U.S. Army Corps of Engineers
Omaha District
Omaha, Nebraska

September 1997

Appendix A

Proposed RCRA Subpart S Action Levels

Proposed RCRA Subpart S Action Levels

The proposed RCRA Subpart S in 40 CFR Part 264 contains methodology and criteria for calculating risk-based action levels (action levels) for contaminants in soil, water, and air. Action levels, as stated in the proposed RCRA Subpart S corrective action regulations, are considered the "trigger" as to whether a corrective measures study (CMS) is required. In general, exceedance of action levels will trigger a CMS (proposed Part 264.520(a)); however, under certain conditions, the agency may determine that a CMS is not required even though action levels are exceeded (proposed Part 264.520(c)). Conversely, the agency may also determine that even though action levels were not exceeded, a CMS may be required (i.e., when sensitive receptors are present, proposed Part 264.502(b)). Action levels derived according to these criteria represent valid, reasonable estimates of levels in media at or below which corrective action is unlikely to be necessary. Action levels are not, however, cleanup standards.

Soil action levels are derived from reference doses (RfDs) or carcinogenic slope factors (Sfs). The more stringent level was chosen in cases where contaminants have both Rfd- and SF-derived action levels. Action levels for groundwater are Maximum Contaminant Levels (MCLs), New Mexico Human Health Standards (HHSs), or are derived from RfDs or Sfs. In cases where multiple action levels were available for a specific contaminant, the most stringent value was used. Table A-1 is a compilation of the most stringent action levels for soil and groundwater constituents detected during the Table 2 RFI.

Action Levels for soil and water were calculated using recommended exposure assumptions from Appendix D of the proposed rule, equations from Appendix E of the proposed rule, and RfDs and Sfs available from the EPA. Concentrations used as action levels for carcinogens are associated with a 1E-06 upper-bound excess cancer risk for Class A and B carcinogens, and a 1E-05 upper-bound excess cancer risk for Class C carcinogens. Action levels for systemic toxicants are based on concentrations at which the human population could be exposed on a daily basis without appreciable risk of adverse health effects.

The RFDs and Sfs were verified in the *Electronic Handbook of Risk Assessment Values* (EHRAV), April 15, 1993 Edition. Values not listed in EHRAV were taken from EPA's Health Effects Assessment Summary Tables (HEAST) FY 1992, or were derived from MCLs or HHSs.

Table A-1

Action Levels for Constituents Detected at the Holloman AFB Table 2 SWMUs

Chemical	EPA Carc. Class	Oral RfD mg/kg-d	Oral SF (mg/kg-d)-1	Soil Action Level (noncarc.) mg/kg	(carc.) mg/kg	Water Action Level (noncarc.) mg/L	(carc.) mg/L	Drinking Water MCLs e (mg/L)	N.M. HHS f (ma/L)
2-Methylnaphthalene	NA	--	--	--	--	--	--	--	0.03
2,4-D	D	1.0E-02	--	8.00E+02	--	3.50E-01	--	0.07	--
2,4-DB	NA	8.0E-03	--	6.40E+02	--	2.80E-01	--	--	--
2,4-Dimethylphenol	NA	2.0E-02	--	1.60E+03	--	7.00E-01	--	--	--
2,4,5-T	D	1.0E-02	--	8.00E+02	--	3.50E-01	--	--	--
2,4,5-TP (Silvex)	D	8.0E-03	--	6.40E+02	--	2.80E-01	--	0.05	--
4-Chloro-3-methylphenol	NA	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	NA	8.0E-02	--	6.40E+03	--	2.80E+00	--	--	--
acenaphthene	NA	6.0E-02	--	4.80E+03	--	2.10E+00	--	--	--
acenaphthylene	D	--	--	--	--	--	--	--	--
acetone	D	1.0E-01	--	8.00E+03	--	3.50E+00	--	--	--
acetophenone	D	1.0E-01	--	8.00E+03	--	3.50E+00	--	--	--
aldrin	B2	3.0E-05	1.7E+01	2.40E+00	4.12E-02	1.05E-03	2.06E-06	--	a
alpha-BHC	B2	--	6.3E+00	--	1.11E-01	--	5.56E-06	--	a
alpha-Chlordane	B2	6.0E-05	1.3E+00	4.80E+00	5.38E-01	2.10E-03	2.69E-05	0.002	--
aluminum	NA	--	--	2.32E+05	--	1.01E+02	--	--	5
aniline	C	--	5.7E-03	--	1.23E+02	--	6.14E-03	--	--
anthracene	D	3.0E-01	--	2.40E+04	--	1.05E+01	--	--	--
anthracene, 7,12-dimethylbenz(a)	NA	--	--	--	--	--	--	--	--
antimony	D	4.0E-04	--	3.20E+01	--	1.40E-02	--	0.006	--
aramite	B2	5.0E-02	2.5E-02	4.00E+03	2.80E+01	1.75E+00	1.40E-03	--	--
arsenic	A	3.0E-04	--	2.40E+01	--	1.05E-02	--	0.05	0.1
barium	D	7.0E-02	--	5.60E+03	--	2.45E+00	--	2	1
benzene	A	--	2.9E-02	--	2.41E+01	--	1.21E-03	0.005	0.01 a
benzidine	A	3.0E-03	2.3E+02	2.40E+02	3.04E-03	1.05E-01	1.52E-07	--	a
benzoic acid	D	4.0E+00	--	3.20E+05	--	1.40E+02	--	--	--
benzo(a)anthracene	B2	--	7.3E-01	--	9.59E-01	--	4.79E-05	--	--
benzo(a)pyrene	B2	--	7.3E+00	--	9.59E-02	--	4.79E-06	0.0002	0.0007 a
benzo(b)fluoranthene	B2	--	7.3E-01	--	9.59E-01	--	4.79E-05	--	a
benzo(g,h,i)perylene	D	--	--	--	--	--	--	--	--
benzo(k)fluoranthene	B2	--	7.3E-02	--	9.59E+00	--	4.79E-04	--	a
benzyl alcohol	NA	3.0E-01	--	2.40E+04	--	1.05E+01	--	--	--
benzyl chloride	B2	--	1.7E-01	--	4.12E+00	--	2.06E-04	--	--
beryllium	B2	5.0E-03	4.3E+00	4.00E+02	1.63E-01	1.75E-01	8.14E-06	0.004	--
bis(2-Chloroethoxy)methane	D	--	--	--	--	--	--	--	--

Table A-1 (Continued)

bis(2-Ethylhexyl)phthalate	B2	2.0E-02	1.4E-02	1600	5.00E+01	7.00E-01	2.50E-03	0.006	a
bromochloromethane	D	--	--	--	--	--	--	--	--
bromodichloromethane	B2	2.0E-02	6.0E-02	1.60E+03	1.17E+01	7.00E-01	5.83E-04	0.1	a
bromoform	B2	2.0E-02	7.9E-03	1.60E+03	8.83E+01	7.00E-01	4.41E-03	0.1	a
bromomethane	D	1.4E-03	--	1.12E+02	--	4.90E-02	--	--	--
Butylbenzylphthalate	C	--	--	0	--	0.00E+00	--	--	--
cadmium (carcinogenicity)	B1	--	--	--	--	--	--	0.005	0.01
carbon disulfide	D	1.0E-01	--	8.00E+03	--	3.50E+00	--	--	--
carbon tetrachloride	B2	7.0E-04	1.3E-01	5.60E+01	5.38E+00	2.45E-02	2.69E-04	0.005	0.01 a
chlordane	B2	6.0E-05	1.3E+00	4.80E+00	5.38E-01	2.10E-03	2.69E-05	0.002	a
chlorobenzene	D	2.0E-02	--	1.60E+03	--	7.00E-01	--	0.1	--
chlorobenzilate	B2	2.0E-02	2.7E-01	1.60E+03	2.59E+00	7.00E-01	1.30E-04	--	--
chloroethane	NA	4.0E-01	--	3.20E+04	--	1.40E+01	--	--	--
chloroform	B2	1.0E-02	6.1E-03	8.00E+02	1.15E+02	3.50E-01	5.74E-03	0.1	0.1 a
chloromethane	C	--	1.3E-02	--	5.38E+02	--	2.69E-02	--	a
chlorpyrifos	D	3.0E-03	--	2.40E+02	--	1.05E-01	--	--	--
chromium (hexavalent)	A	5.0E-03	--	4.00E+02	--	1.75E-01	--	0.1	0.05
chromium (trivalent)	D	1.0E+00	--	8.00E+04	--	3.50E+01	--	0.1	0.05
chrysene	B2	--	7.3E-03	--	9.59E+01	--	4.79E-03	--	--
copper	D	3.7E-02	--	2.96E+03	--	1.30E+00	--	1.3	1
coumaphos	NA	--	--	--	--	--	--	--	--
cyanide	D	2.0E-02	--	1.60E+03	--	7.00E-01	--	0.2	0.2
dalapon	D	3.0E-02	--	2.40E+03	--	1.05E+00	--	0.2	--
ddd, 4,4'-	B2	--	2.4E-01	--	2.92E+00	--	1.46E-04	--	--
dde, 4,4'-	B2	--	3.4E-01	--	2.06E+00	--	1.03E-04	--	--
ddt, 4,4'-	B2	5.0E-04	3.4E-01	4.00E+01	2.06E+00	1.75E-02	1.03E-04	--	a
delta-BHC	D	--	--	--	--	--	--	--	--
diallate	B2	--	6.1E-02	--	1.15E+01	--	5.74E-04	--	--
diazinon	NA	9.0E-04	--	7.20E+01	--	3.15E-02	--	--	--
dibenzofuran	D	--	--	--	--	--	--	--	--
dibenz(a,h)anthracene	B2	7.3E+00	--	--	9.59E-02	--	4.79E-06	--	--
dibromochloromethane	C	2.0E-02	8.4E-02	1.60E+03	8.33E+01	7.00E-01	4.17E-03	0.1	--
dibromomethane	D	--	--	--	--	--	--	--	--
dibutylphthalate	D	1.0E-01	--	8000	--	3.50E+00	--	--	--
dicamba	D	3.0E-02	--	2.40E+03	--	1.05E+00	--	--	--
dichlorobenzene, 1,2-	D	9.0E-02	--	7.20E+03	--	3.15E+00	--	0.6	--
dichlorobenzene, 1,3-	D	--	--	7.10E+03	--	3.12E+00	--	--	--
dichlorobenzene, 1,4-	C	--	2.4E-02	--	2.92E+02	--	1.46E-02	0.075	a
dichlorodifluoromethane	NA	2.0E-01	--	1.60E+04	--	7.00E+00	--	--	--

Table A-1 (Continued)

dichloroethane, 1,1-	C	1.0E-01	--	8.00E+03	--	3.50E+00	--	--	0.025
dichloroethene, 1,1-	C	9.0E-03	6.0E-01	7.20E+02	1.17E+01	3.15E-01	5.83E-04	0.007	0.005 a
dichloroethene, trans-1,2-	D	2.0E-02	--	1.60E+03	--	7.00E-01	--	0.1	--
dichloropropene, trans-1,3-	B2	3.0E-04	1.8E-01	24	3.89E+00	1.05E-02	1.94E-04	--	a
dichlorprop	NA	--	--	--	--	--	--	--	--
dichlorvos	B2	5.0E-04	2.9E-01	4.00E+01	2.41E+00	1.75E-02	1.21E-04	--	a
dieldrin	B2	5.0E-05	1.6E+01	4.00E+00	4.38E-02	1.75E-03	2.19E-06	--	--
diethylphthalate	D	8.0E-01	--	6.40E+04	--	2.80E+01	--	--	--
dimethoate	NA	2.0E-04	--	1.60E+01	--	7.00E-03	--	--	--
dinoseb	D	1.0E-03	--	8.00E+01	--	3.50E-02	--	0.007	--
diphenylamine	D	2.5E-02	--	2.0E+03	--	8.75E-01	--	--	--
disulfoton	E	4.0E-05	--	3.20E+00	--	1.40E-03	--	--	--
endosulfan	NA	5.0E-05	--	4.00E+00	--	1.75E-03	--	--	--
endosulfan I	NA	5.0E-05	--	4.00E+00	--	1.75E-03	--	--	--
endosulfan II	NA	5.0E-05	--	4.00E+00	--	1.75E-03	--	--	--
endosulfan sulfate	NA	5.0E-05	--	4.00E+00	--	1.75E-03	--	--	--
endrin	D	3.0E-04	--	2.40E+01	--	1.05E-02	--	0.002	--
endrin aldehyde	D	3.0E-04	--	2.40E+01	--	1.05E-02	--	0.002	--
ethanol	NA	--	--	--	--	--	--	--	--
ethoprop	NA	--	--	--	--	--	--	--	--
ethylbenzene	D	1.0E-01	--	8.00E+03	--	3.50E+00	--	0.7	0.75
fensulfothion	NA	--	--	--	--	--	--	--	--
fenthion	NA	--	--	--	--	--	--	--	--
fluoranthene	D	4.0E-02	--	3.20E+03	--	1.40E+00	--	--	--
fluorene	D	4.0E-02	--	3.20E+03	--	1.40E+00	--	--	--
gamma-BHC	B2/C	3.0E-04	1.3E+00	2.40E+01	5.38E-01	1.05E-02	2.69E-05	0.0002	a
gamma-Chlordane	B2	6.0E-05	1.3E+00	4.80E+00	5.38E-01	2.10E-03	2.69E-05	0.002	--
glufosinate-ammonium	NA	4.0E-04	--	3.20E+01	--	1.40E-02	--	--	--
glycidaldehyde	B2	4.0E-04	--	3.20E+01	--	1.40E-02	--	--	--
glyphosate	NA	--	--	--	--	--	--	0.7	--
heptachlor	B2	5.0E-04	4.5E+00	4.00E+01	1.56E-01	1.75E-02	7.78E-06	0.0004	a
heptachlor epoxide	B2	1.3E-05	9.1E+00	1.04E+00	7.69E-02	4.55E-04	3.85E-06	0.0002	--
hexachlorobenzene	B2	8.0E-04	1.6E+00	6.40E+01	4.37E-01	2.80E-02	2.19E-05	0.001	a
hexachlorobutadiene	C	2.0E-04	7.8E-02	1.60E+01	8.97E+01	7.00E-03	4.49E-03	--	a
hexachlorocyclopentadiene	D	7.0E-03	--	5.60E+02	--	2.45E-01	--	0.05	--
hexachloroethane	C	1.0E-03	1.4E-02	8.00E+01	5.00E+02	3.50E-02	2.50E-02	--	a
hexachlorophene	NA	3.0E-04	--	2.40E+01	--	1.05E-02	--	--	--
hexanone, 2-	NA	--	--	--	--	--	--	--	--
indeno(1,2,3-cd)pyrene	B2	--	7.3E-01	--	9.59E-01	--	4.79E-05	--	--

Table A-1 (Continued)

iron	NA	--	--	--	--	--	--	--	1
isobutyl alcohol	NA	3.0E-01	--	2.40E+04	--	1.05E+01	--	--	--
isophorone	C	2.0E-01	9.5E-04	1.60E+04	7.37E+03	7.00E+00	3.68E-01	--	--
isopropanol	NA	--	--	--	--	--	--	--	--
lead	B2	--	--	--	--	--	--	0.015	0.05
MCPA	NA	5.0E-04	--	4.00E+01	--	1.75E-02	--	--	--
MCPP	NA	--	--	--	--	--	--	--	--
mercury	D	3.0E-04	--	2.40E+01	--	1.05E-02	--	0.002	0.002
merphos	NA	3.0E-05	--	2.40E+00	--	1.05E-03	--	--	--
merphos oxide	NA	3.0E-05	--	2.40E+00	--	1.05E-03	--	--	--
methanol	NA	5.0E-01	--	4.00E+04	--	1.75E+01	--	--	--
methoxychlor	D	5.0E-03	--	4.00E+02	--	1.75E-01	--	0.04	--
methyl azinphos	NA	--	--	--	--	--	--	--	--
methyl ethyl ketone (MEK)	D	6.0E-01	--	4.80E+04	--	2.10E+01	--	--	--
methyl ethyl ketone peroxide	NA	--	--	--	--	--	--	--	--
methyl parathion	D	2.5E-04	--	2.00E+01	--	8.75E-03	--	--	--
methylene chloride	B2	6.0E-02	7.5E-03	4.80E+03	9.33E+01	2.10E+00	4.67E-03	0.005	0.1 a
methylphenol, 2-	C	5.0E-02	--	4.00E+03	--	1.75E+00	--	--	--
methylphenol, 3-	C	5.0E-02	--	4.00E+03	--	1.75E+00	--	--	--
methylphenol, 4-	C	5.0E-03	--	4.00E+02	--	1.75E-01	--	--	--
mevinphos	NA	--	--	--	--	--	--	--	--
mirex	B2	2.0E-04	1.8E+00	1.60E+01	3.89E-01	7.00E-03	1.94E-05	--	--
naled	NA	--	--	1.60E+02	--	7.00E-02	--	--	--
naphthalene	D	--	--	--	--	--	--	--	0.03
nickel	D	2.0E-02	--	1.60E+03	--	7.00E-01	--	0.1	0.2
nitrobenzene	D	5.0E-04	--	4.00E+01	--	1.75E-02	--	--	--
N-nitroso-di-n-propylamine	B2	--	7.0E+00	--	1.00E-01	--	5.00E-06	--	--
PCBs (total)	B2	--	7.7E+00	--	9.09E-02	--	4.55E-06	0.0005	0.001 a
p-chloroaniline	NA	4.0E-03	--	3.20E+02	--	1.40E-01	--	--	--
pentachlorobenzene	D	8.0E-04	--	6.40E+01	--	2.80E-02	--	--	--
pentachlorophenol	B2	3.0E-02	1.2E-01	2.40E+03	5.83E+00	1.05E+00	2.92E-04	0.001	0.005 a
phenanthrene	D	--	--	--	--	--	--	--	--
phenol	D	6.0E-01	--	4.80E+04	--	2.10E+01	--	--	0.005
phorate	NA	2.0E-04	--	1.60E+01	--	7.00E-03	--	--	--
pronamide	C	7.5E-02	--	6.00E+03	--	2.63E+00	--	--	--
pyrene	D	3.0E-02	--	2.40E+03	--	1.05E+00	--	--	--
pyridine	NA	1.0E-03	--	8.00E+01	--	3.50E-02	--	--	--
ronnel	NA	5.0E-02	--	4.00E+03	--	1.75E+00	--	--	--
selenium	D	5.0E-03	--	4.00E+02	--	1.75E-01	--	0.05	0.05

Table A-1 (Continued)

silver	D	5.0E-03	--	4.00E+02	--	1.75E-01	--		0.05
styrene	NA	2.0E-01	--	1.60E+04	--	7.00E+00	--	0.1	--
sulfide	NA	--	--	--	--	--	--	--	--
sulfide, p-chlorophenyl methyl	D	--	--	--	--	--	--	--	--
sulprofos (bolstar)	NA	--	--	--	--	--	--	--	--
tetrachloroethane, 1,1,1,2-	C	3.0E-02	2.6E-02	2.40E+03	2.69E+02	1.05E+00	1.35E-02	--	--
tetrachloroethene	C-B2	1.0E-02	5.2E-02	8.00E+02	1.35E+02	3.50E-01	6.73E-03	0.005	0.02 a
tetrachlorvinphos	C	3.0E-02	2.4E-02	2.40E+03	2.92E+02	1.05E+00	1.46E-02	--	--
thallium	NA	--	--	--	--	--	--	0.002	--
toluene	D	2.0E-01	--	1.60E+04	--	7.00E+00	--	1	0.75
toxaphene	B2	--	1.1E+00	--	6.36E-01	--	3.18E-05	0.003	a
trichloroethane, 1,1,1-	D	--	--	8.00E+02	--	3.50E-01	--	--	0.06
trichloroethene	B2	--	--	6.40E+01	--	3.20E-01	--	0.005	0.1 a
trichlorofluoromethane	NA	3.0E-01	--	2.40E+04	--	1.05E+01	--	--	--
vanadium	D	7.0E-03	--	5.60E+02	--	2.45E-01	--	--	--
vinyl acetate	NA	1.0E+00	--	8.00E+04	--	3.50E+01	--	--	--
vinyl chloride	A	--	1.9E+00	--	3.68E-01	--	1.84E-05	0.002	0.001 a
xylene (total)	D	2.0E+00	--	1.60E+05	--	7.00E+01	--	10	0.62
xylene, 4-ethyl-o-	NA	--	--	--	--	--	--	--	--
xylene, m-	NA	2.0E+00	--	1.60E+05	--	7.00E+01	--	10	0.62
xylene, o-	NA	2.0E+00	--	1.60E+05	--	7.00E+01	--	10	0.62
xylene, p-	NA	--	--	--	--	--	--	10	0.62
zinc	D	3.0E-01	--	2.40E+04	--	1.05E+01	--	--	10

a = No contaminant or combination of contaminants may exceed a lifetime cancer risk of 1 in 100,000.

APPENDIX B

Basewide Background UTLs for Metals

Basewide Background UTLs for Metals

Basewide background Upper Tolerance Limits (UTLs) for metals at Holloman AFB are presented on Table B-1 on the following page. A UTL is the upper boundary of an interval that has a 95% probability of containing all base-wide background levels for a particular metal. This is interpreted to mean that there is a 95% probability that fewer than 5% of future samples collected at background locations would exceed the calculated UTL. Conversely, if a sample result exceeds the UTL, there is only a 5% probability that the sample came from a background area.

Table B-1

Upper Tolerance Limits (UTLs) for Background Soils at Holloman AFB

Analyte	Analytical Method	Upper Tolerance Limit (mg/kg)
Aluminum	SW6010	8764.4972
Antimony	SW6010	7.2844
Antimony	SW7041	0.2533
Arsenic	SW6010	6.8833
Barium	SW6010	84.3632
Beryllium	SW6010	0.4000
Boron	SW6010	15.0118
Cadmium	SW6010	1.0359
Calcium	SW6010	250000.0000
Chromium	SW6010	6.6049
Cobalt	SW6010	2.4852
Copper	SW6010	4.8438
Iron	SW6010	6361.6513
Lead	SW6010	12.303[a]
Lithium	SW6010	17.7993
Magnesium	SW6010	14656.2132
Manganese	SW6010	146.9104
Mercury	SW7471	NS[b]
Molybdenum	SW6010	5.4258
Nickel	SW6010	5.6125
Potassium	SW6010	2501.3873
Selenium	SW6010	10.5310

Table B-1

(Continued)

Analyte	Analytical Method	Upper Tolerance Limit (mg/kg)
Silicon	SW6010	483.9082
Silver	SW6010	0.7342
Sodium	SW6010	5000.0000
Strontium	SW6010	3077.1267
Thallium	SW6010	11.3153
Thallium	SW7841	0.4977
Tin	SW6010	3.1743
Titanium	SW6010	197.4081
Uranium	SW6010	12.4107
Vanadium	SW6010	15.4597
Zinc	SW6010	20.2464

[a] The UTL for lead was calculated using data from the 29 Sites Investigation.

[b] The UTL for mercury is not specified (NS) because the UTL result was a negative value.

Appendix C

Risk Assessment Results

Attachment C-1:	**Chemicals of Potential Concern and Supporting Statistical Data**
Attachment C-2:	**Air Emissions Methodology**
Attachment C-3:	**Toxicity Assessment**
Attachment C-4:	**Risk Characterization Methodology and Risk Model Output**
Attachment C-5:	**Risk-based Screen Results**

Appendix C
Quantitative Risk Assessment Results

Appendix C contains quantitative human health and/or ecological risk assessment results for the following solid waste management unit (SWMU) groups. Their corresponding Installation Restoration Program (IRP) site number is given in parentheses.

- SWMUs 21, 22, and 123; 54 and 55 (Site 47);
- SWMUs 118, 132, and AOC-A (Site 16);
- SWMUs 129 and 178 (Site 36);
- SWMUs 165, 177, 179, and 181 (Site 39); and
- SWMU 164 (not an IRP site).

For the risk assessment, the SWMU groups were combined as listed above because the SWMUs were all close together. Risk assessments were done for all of the above SWMUs, except SWMU 164, during previous investigations. Whenever possible, the previous risk assessments were updated; new pathways were assessed as necessary. For the SWMU group 165, 177, 179, and 181 (Site 39), only the ecological risk assessment was updated because the previous risk assessment showed little potential risk to human receptors.

The risk assessments followed the same methodology for all five SWMU groups. Therefore, the general information presented below applies to all five sites, unless noted otherwise. Site-specific conditions or findings and supportive data are discussed in separate sections on each SWMU group. Table C.1-1 presents the general findings for each of the receptor risk areas investigated during the risk assessment for each SWMU group.

Except for Site 39, the risk assessments for all the sites examined the following features.

C.1 RCRA Receptor and Pathway Identification

In this section, potential receptors and exposure pathways are presented as required by the RFI guidance (EPA, 1989) to identify human populations and environmental systems that may be susceptible to contaminant releases. The information presented here on groundwater, surface water,

Table C.1-1

General Findings for the Holloman Table 2 RFI Risk Assessment

Receptor Risk Areas					
SWMU Group	Groundwater	Surface Water	Human	Biota	Findings
21, 22, 123; 54 & 55 (Site 47)	None	None	Minimal [a]	Minimal [b]	Human populations and environmental systems could potentially be affected by the transfer of a release from Site 47 by one medium to another.
118, 132, & AOC-A (Site 16)	None	None	Minimal [a]	Minimal [b]	Human populations and environmental systems could potentially be affected by the transfer of a release from Site 16 by one medium to another.
129 & 178 (Site 36)	None	None	Minimal [a]	Minimal [b]	Human populations and environmental systems could potentially be affected by the transfer of a release from site 36 by one medium to another.
165, 177, 179, & 181 (Site 39)	None	None	None	Minimal [c]	Low risk for human receptors. Exposure to contaminants—lead and cadmium—is possible through uptake by plants.
164	None	None	Minimal [a]	Minimal [b]	Human populations and environmental systems could potentially be affected by the transfer of a release from SWMU 164 by one medium to another.

[a] Location at which sensitive members might congregate include hospitals, schools, nurseries, and day care centers.

[b] Endangered or threatened species potentially affected consist of White Sands pupfish, Peregrine falcon, least tern, snowy plover, mountain plover, long-billed curlew, white-faced ibis, and ferruginous hawk.

[c] Exposure possible through plants' uptake of contaminants through the soil and groundwater and through ingestion by wildlife. See the site-specific narrative (section C-4.4) for the risk assessment performed for this site.

human population, and biota applies to all five sites and was used to determine potential receptors and exposure pathways.

Groundwater

Currently, there are no groundwater supply wells located on Holloman AFB. The groundwater beneath the Base is unfit for human consumption as determined by New Mexico Water Quality Control Commission Regulations (NM WQCC 82-1, as amended through August 18, 1991, Parts 3-100 through 3-103) because it exceeds New Mexico Human Health Standards for total dissolved solids (TDS) and sulfate. The nearest production well downgradient of Holloman AFB is a livestock well located 3.5 miles west of the Base (Computrac, Inc., 1986). No other downgradient or near-Base potable or irrigation wells exist. Groundwater discharge occurs either through evapotranspiration, springs, or seeps along steep-sided arroyos or into closed playa lakes such as Lake Lucero, the regional groundwater discharge area. On the basis of the EPA document *Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy* (EPA, 1986), the groundwater can be classified as III B. Class III groundwater, characterized as having a TDS concentration greater than 10,000 mg/L, is not considered a source or a potential source of drinking water. The primary source of fresh water for Holloman AFB is Lake Bonita, located 60 miles northeast of the Tularosa Basin.

Surface Water

Because of its high TDS and high sulfate content, surface water in the area is not used as a potable water source, for agricultural purposes, or for residential use (i.e., lawn or gardening water). The lakes are too highly eutrophic for game fish to survive. Surface water in the area could potentially be used for recreational purposes (i.e., wading); however, there is no surface water near the sites or complete migration pathways for contaminants to reach surface water. Therefore, there are no complete exposure pathways for surface water.

Human Population

The city of Alamogordo is the only town of appreciable size within 50 miles of the Base. Alamogordo is located approximately seven miles east of the Base boundary and had an estimated population of approximately 31,090 in 1992. Holloman AFB has a labor force of

approximately 6600 military personnel and 3000 civilian personnel. Of these, approximately 5500 people reside in the southeast corner of the Base. Since the stronger winds are predominantly from the west to southwest, the on-Base population is predominantly upwind of the sites; however, the residential area is downwind of Site 16. Workers located near the sites could potentially be exposed to contaminants.

Potentially sensitive members of the population with respect to exposure to chemicals originating at Holloman AFB include the young, the elderly, and those with preexisting conditions that may be aggravated by exposure to chemicals of potential concern (COPCs). Locations at which sensitive members of the population might congregate include hospitals, retirement/nursing homes, schools, nurseries, and day care centers. These potential receptors are all predominantly upwind of all of the sites.

The desert terrain of the area surrounding Holloman AFB has limited development in the immediate vicinity. There are no agricultural operations, residential communities, or large industrial operations located adjacent to the Base. Holloman AFB is an active military installation and is expected to remain active for the foreseeable future. No transfer of military property to the public domain is anticipated. Public access to the Base is restricted. Future land use is not expected to differ significantly from current land use practices.

Biota

Biota that could potentially be affected by the release of contaminants into surface water bodies include the White Sands pupfish, which is located in the Malone Draw arroyo. The White Sands pupfish is a New Mexico threatened species. There are several federal endangered species that are potentially affected by contaminants from the Base, including the peregrine falcon and the least tern. The snowy plover, mountain plover, long-billed curlew, white-faced ibis, and ferruginous hawk are candidates for listing as endangered species, and have been identified at or near Lake Holloman and Lake Stinky.

The area is a grass flats community dominated by alkali sacaton and salt brush. Rabbit brush is also common. A detailed discussion of critical habitats and endangered species is included in Appendix K of the previous risk assessment report (Radian, 1992b).

Findings

Human populations and environmental systems could potentially be affected by the transfer of a release from all sites except for Site 39 by one medium to another. Suspected intermedia contaminant transfers and pathways are presented in Table C.1-2.

C.1.2 Chemicals of Potential Concern

A detailed discussion of the sampling events at four of the SWMUs is presented in the following sections of this report and will not be repeated here:

- SWMUs 21, 22, and 123; 54 and 55-sections 4.4 and 4.9;
- SWMUs 118, 132, and AOC-A-section 5.1;
- SWMUs 129 and 178-section 5.2; and
- SWMU 164-section 4.19.

COPCs were selected according to the criteria detailed in Attachment 1. A complete list of constituents detected at the site is also presented in the attachment.

Groundwater quality parameters and inorganic constituents were statistically compared with background concentrations (presented in Appendix D of the *RA Report*, Radian, 1992b) and were eliminated as COPCs. Measured soil and groundwater concentrations and modeled air concentrations were screened using EPA Region III screening criteria. The COPCs selected for each site are listed in Table C.1-3.

C.1.3 Exposure Assessment

This section contains information on the routes of human exposure to the COPCs that are present at, or may have migrated from, the sites. This information is based on site visits, data gathered for this investigation, and EPA guidelines. Appendix D of the previous risk assessment report (Radian, 1992b) contains a detailed discussion of the potentially exposed populations, exposure pathways, exposure scenarios, quantification of exposures, and exposure assessment uncertainties.

Table C.1-2

Potential Intermedia Contaminant Transfer Pathways for IRP Sites 47, 16, and 36; SWMU 164

Receptor Risk Areas		
Release Media	**Potential Receiving Media**	**Transfer Pathways**
Air	• Soil • Surface water	• Deposition of particles • Atmospheric washout
Soil	• Air • Groundwater • Surface water • Subsurface gas	• Fugitive dust generation • Migration through the unsaturated zone • Overland runoff • Migration through the soil
Groundwater	• Surface water • Subsurface gas	• Groundwater recharge • Volatilization
Surface water	• Groundwater • Air • Soil	• Groundwater recharge • Volatilization • Deposition of flood plain sediments
Subsurface gas	• Air • Soil	• Venting through the soil • Migration through the soil

Table C.1-3

COPCs for IRP Sites 16, 36, 47, and SWMU 164

Contaminant	IRP Site 16		IRP Site 36		IRP Site 47		SWMU 164	
	COPC	Media of Concern	COPC	Media of Concern	COPC	Media of Concern	COPC	Media of Concern
Arsenic					x	gw	x	air
Barium							x	air
Benzo(a)pyrene			x	ss				
Benzene	a	gw			x	so/gw		
alpha-BHC	x	gw						
gamma-BHC	x	gw						
Cadmium					x	air	x	air
Chromium					x	air	x	air
1,1-Dichloroethene					x	so		
Dieldrin	x	gw						
Ethylbenzene	a	gw			x	gw		
Heptachlor epoxide	x	ss/gw						
Methylene chloride	x	gw						
PCB-1260	x	ss/so						
Trichloroethene	a	gw	x	gw				

[a] Detected in groundwater only, not in the soil. Not retained as COPC because no groundwater exposure pathway exists.

[x] Retained as COPC.

so = subsurface soil

ss = surface soil

gw = groundwater

The following subsections discuss the identification of the exposure pathways, exposure scenarios, and quantification of exposures for the sites.

Identification of Exposure Pathways

An exposure pathway describes the course that a chemical or physical agent takes from the source of contamination to the exposed individual. A complete exposure pathway generally consists of the following:

- A source and mechanism of chemical release;
- A retention or transport medium (or media in cases involving intermedia transfer of chemicals);
- A point of potential human contact with the contaminated medium; and
- An exposure route (e.g., ingestion).

The following paragraphs provide information on the fate and transport of the COPCs, exposure points, and exposure routes at the sites. The contaminant sources and receiving media are provided in the site-specific sections of this appendix.

Results of chemical analyses of groundwater samples collected during the previous investigation at Sites 47, 16, and 36 show constituents in the groundwater directly beneath the sites. Groundwater beneath SWMU 164 has not been analyzed. Soil samples collected during this investigation show contaminants in the surface and subsurface soils at all sites except Site 39. The original release sources (drainage of wastes) contributed contaminants to the soil and groundwater via site leaching. For the purposes of this risk assessment, the source of contamination is represented by analytical measurements of identified COPCs in the soil and groundwater at the sites.

The SWMUs can potentially contribute to the release of contaminants to the following media:

- Air via volatilization and fugitive dust generation;
- Groundwater via site leaching and recharge of water from the surface; and
- Surface water via surface runoff and groundwater discharge to the surface in springs or seeps.

There is no known direct discharge of contaminants from the sites to a surface water source.

Releases to Air-To evaluate releases to the air at the sites, four types of emission mechanisms need to be considered:

- Volatilization of organic compounds from subsurface contamination;
- Volatilization of organic compounds from surface contamination;
- Volatilization of organic compounds discharged from groundwater to surface water; and
- Wind entrainment of contaminated dust.

Releases to Groundwater-Results of chemical analyses of groundwater samples collected during the previous investigation are presented in the site-specific discussions.

Releases to Surface Water-Contaminated groundwater may potentially discharge into Dillard Draw, which is hydraulically downgradient from the sites; however, it is more likely to be caught in the Base storm sewer. As mentioned earlier, there is no known direct discharge of contaminants from the site to a surface water source. Surface runoff is minimized due to the level topography of the site and low annual rainfall.

Fate and Transport in Release Media-Primary environmental transport media for chemical substances in the environment include the air, groundwater, surface water, and soil. The potentially significant contaminant transport mechanisms considered for this risk assessment consist of the following:

- Dispersion in the air of volatiles and fugitive dust;
- Migration of contaminated groundwater;
- Discharge of contaminated groundwater to surface water; and
- Uptake by plants and animals.

Air Dispersion-Emissions of volatile organic chemicals from all of the sites may occur at ground level in the gaseous phase. The gases disperse in the ambient air according to local meteorological conditions. Ambient ground level concentrations are highest at the source and typically drop off rapidly at outlying areas. Since the stronger winds are from the west to

southwest, the highest annual average ground level concentrations usually occur east to northeast of the sites. There is a potential for volatile chemicals to migrate through the soil pores and eventually volatilize to the atmosphere. Volatilized contaminants from the ground surface disperse/diffuse rapidly, resulting in much lower concentrations in the ambient air.

Nonvolatile chemicals and metals can potentially enter the atmosphere as a result of wind entrainment of contaminated surface soil. Some of the factors affecting the emission of fugitive dust into the atmosphere include gravel cover, vegetative cover, surface erodibility, and area of contaminated surface soil.

Groundwater Migration-Groundwater occurs in a shallow unconfined aquifer beneath each of the sites. In November 1991, local groundwater flow direction was studied during another investigation (*RI Report*; Radian, 1992a). Some of the factors affecting the rate of contaminant migration in groundwater include the solubility of the contaminant in water, its density relative to water, the persistence of the contaminant and/or its transformation products, and its potential adsorption onto subsurface materials.

Discharge to Surface Water and Transport in Surface Water-The Base is crossed by several southwest-trending arroyos that control surface drainage in the undeveloped part of the Base. These arroyos are: Hay Draw, in the far northern part of the Base; Malone Draw and Rita's Draw, which drain into Lost River; and Dillard Draw to the east, which runs in a southwesterly direction near the southern boundary of the Base toward the sewage lagoons. Dillard Draw is the closest surface water source downgradient from these sites.

Uptake by Biota-Plants and terrestrial organisms are located in the vicinity of Holloman AFB. For this risk assessment, plants and animals are potentially exposed to contaminants originating from these sites. At all the sites, groundwater is not potable and is too salty for use in gardens or for livestock; therefore, these pathways are considered incomplete in this risk assessment. Further conclusions about site-specific exposure pathways are presented in their respective sections.

Uptake in Commercially Grown Plants-Because groundwater and surface water are unsuitable for agricultural use, there is little potential for use of contaminated water to irrigate commercially grown crops. In addition, there are currently no agricultural crops near the sites.

Accumulation in Fish and Aquatic Organisms-Surface water ponds in the area are too eutrophic for game fish to survive. Therefore, consumption of fish was not considered in this risk assessment.

Exposure Points and Exposure Routes-Potentially exposed populations at each of the sites are presented in their respective site-specific discussion. Probable future land use in the areas of the sites as discussed in Appendix D of the previous risk assessment report (Radian, 1992b) will not significantly alter these exposure points and exposure routes.

Exposure Pathways-Potential exposure pathways for contaminant migration at each site are shown in the figure in the site-specific discussion.

Summary of Exposure Pathways to be Quantified in This Assessment-Potentially exposed populations, exposure media, exposure points, and exposure routes for complete pathways are identified in Figures C.2-1, C.3-1, C.4-1, and C.6-1 for IRP Sites 47, 16, and 36, and SWMU 164, respectively. Also noted in these tables are the decisions to select pathways for quantitative evaluation and the justification for including each pathway in the risk assessment.

Exposure Scenarios

Chronic exposure to on-Base residents (adults and children) is evaluated for 1) an average case, using 50th percentile values for exposure parameters (e.g., exposure duration and frequency) when available and appropriate; and 2) a reasonable maximum case, using 90th-95th percentile values for exposure parameters when available and appropriate. Risk estimates for potential noncarcinogenic effects are predicted for adults and children. Risk estimates for potential carcinogenic effects are predicted for adults only. Carcinogenicity is not assessed in on-Base children because assessment of potential carcinogenic effects in children is not required by EPA guidance (1989b).

Quantification of Exposures

The sections below describe the methodology used to estimate the magnitude, frequency, and duration of exposures for the populations and exposure pathways selected for quantitative evaluation. First, the exposure concentration estimates in the various exposure medium and the methods used to obtain these estimates are discussed. Second, the chemical intake estimates for individual pathways are described. Appendix D of the previous risk assessment (Radian, 1992b) contains a detailed discussion of the exposure assumptions and algorithms used to calculate intake into the body.

Estimation of Exposure Concentrations-Emission rates of COPCs from volatilization and wind entrainment of contaminated dust from the SWMUs were estimated by using predictive equations recommended by EPA. The emission rates were then put into an EPA-approved computer dispersion model to estimate average and reasonable maximum chemical concentrations in the atmosphere at, where applicable to the specific site, residential, occupational, and recreational receptors. In addition, for SWMU 164, these concentrations were estimated for off-site receptors. Attachment 2 contains the methodology used to calculate air emissions and presents the predicted ambient air concentrations resulting from estimated site emissions at on-Base residential receptors and on-site recreational receptors. Measured soil concentrations were used as exposure point concentrations for soil pathways.

Estimation of Chemical Intakes for Individual Pathways-Exposure is defined as the contact rate of an organism with a chemical or physical agent. Intake is defined as exposure normalized for time and body weight and is expressed in units of milligrams of chemical per kilogram of body weight-day (EPA, 1989).

There are three categories of variables used to estimate intake:

- Chemical-related variables (exposure concentration);
- Variables that describe the exposed population (contact rate, exposure frequency and duration, and body weight); and
- Assessment-related variables (averaging time).

The assumptions and algorithms used to estimate exposure for each exposure pathway were presented in Appendix D of the previous risk assessment (Radian, 1992b). The rationale for selecting individual values is explained in footnotes to the tables. The tables also document the equations used to calculate pathway-specific intakes. Exposure duration for construction workers was estimated to be nine weeks, the amount of time normally involved in excavation. The other parameters for the construction worker scenario are the same as those for the on-site worker scenario.

C.1.4 Toxicity Assessment

Table C3-1 in Attachment 3 presents toxicity values used in the risk assessment for the COPCs with potential for human exposure at Sites 47, 16, and 36, and SWMU 164. COPCs that were screened out by the contaminant selection process are not included in the toxicity assessment. Relevant toxicity values and associated information were obtained from the EPA database Integrated Risk Information System (IRIS), January 1994, Health Effects Assessment Summary Tables (HEAST), Annual FY-1993 (EPA, 1993), and other EPA references. These include values used to evaluate the risks associated with noncarcinogenic effects (reference doses and reference concentrations) and carcinogenic potential (slope factors, unit risk factors, and weight of evidence classification).

The previous risk assessment (Radian, 1992b) describes the general methodology used to assess the toxicity of the COPCs and will not be repeated here. The report also includes background information, defines and explains the toxicity values used in the risk assessment, describes the sources of information used to identify the toxicity values, summarizes available information on the potential human health effects of exposure to the COPCs, and discusses the uncertainties associated with using the toxicity values to evaluate potential human health effects. Attachment 3 of this report provides detailed summaries of the available toxicity information and describes the basis for derivation of the toxicity values used in this assessment.

C.1.5 Risk Characterization

Risk characterization combines the possible exposure pathways and subsequent estimated chemical intakes with the appropriate toxicity values to derive quantitative and qualitative expressions of potential health risk. Measured contaminant exposure levels, as well as levels predicted after fate

and transport modeling, are compared with chemical-specific toxicity information to determine if current or future levels of contamination, at or near the site, warrant concern for human health.

The exposure and risk calculations are performed by a computer model developed to automate the exposure quantification and risk characterization process. The model automates the equations for chemical intake and generates chemical-specific hazard indices for noncarcinogenic effects using RfDs and RfCs and chemical-specific carcinogenic risk estimates using cancer slope factors. The model sums the resultant values for chemicals in each of the pathways of exposure, and across pathways of exposure, to generate a total scenario hazard index for noncarcinogenic effects and a total scenario cancer risk for carcinogenic effects. The program also calculates the percent that each chemical and each pathway of exposure contributes to the scenario total. Attachment 4 contains the exposure and risk model output for all the sites.

Carcinogenic and noncarcinogenic risk characterization for the exposure scenarios identified for each of the sites is presented in the site-specific discussions. For carcinogens, the Superfund site remediation risk range goal is 10^{-6} (1 in one million) to 10^{-4} (1 in 10,000). Summed carcinogenic risks higher than range are considered unacceptable. For noncarcinogens, hazard quotients are summed to obtain a total hazard index; a hazard index of greater than 1 indicates a potential cause for concern.

Risk Summary

The tables in Attachment 4 identify the key chemicals and exposure pathways that drive the carcinogenic and noncarcinogenic risk assessment. Total scenario risk and hazard indices are given for each scenario. All scenario risks are within the acceptable range, indicating that existing contamination is unlikely to present an unacceptable risk if left in place.

C.1.6 Environmental Evaluation

Black-tailed jackrabbits (*Lepus californicus*) were selected as an indicator species for the environmental evaluation as described in Appendix K of the *RA Report* (Radian, 1992b).

Environmental evaluations at each of the sites examined the following issues:

- Contaminants of concern;
- Exposure characterization; and
- Risk characterization.

Each of the three issues are discussed in the site-specific sections of this report. With the exception of Site 39, an environmental quotient (EQ) model for black-tailed jackrabbits was developed for all the SWMU groups. In every case, the EQs indicate low probability of any adverse adverse environmental effects from the COPCs at the sites; refer to the site-specific sections for exact EQs. Appendix K, section K.2 of the *RA Report* (Radian, 1992b) presents the methodology for estimating uptake by plants, intake by black-tailed jackrabbits, and calculation of the EQ.

At Site 39, analytical data from terrestrial biota samples collected at the site were used to evaluate environmental effects. Aquatic risk was evaluated using measured surface water data according to the methodology described in Appendix K of the previous risk assessment (Radian, 1992b).

A no observed average effects level (NOAEL) of 0.015 for lead was used in the previous ecological risk assessment (Radian, 1992b). Inhibition of the enzyme delta-aminolevulinic acid dehydrase (ALAD), which regulates hemoglobin production, has proved to be a sensitive and reliable test for low lead levels (Dieter et al., 1976). ALAD inhibition has been accepted as a standard bioassay to detect lead exposure and poisoning in birds (Blus et al., 1991). The decrease of ALAD was the most significant change in the lead poisoning of rats (Demayo et al., 1982). A three-generation, six-litter reproduction study on rats at dietary lead concentrations of 0, 10, 50, 100, 1000, and 2000 ppm showed no effect on the number of pregnancies, number of pups born alive, fertility index, gestation index, viability index, or lactation index (Azar et al., 1973). Because inhibition of ALAD is correlated with toxic effects in many species, a NOAEL of 0.9 mg/kg in a test associated with decreased ALAD activity (Azar et al., 1973) is appropriate as a screening level, and was used in this risk assessment.

Uncertainties and Conclusions

The EQ is based on a NOAEL for laboratory rats; jackrabbits and other species may be more or less sensitive to the COPCs than rats are. Some plant species may accumulate COPCs at higher levels than the model estimates.

There is a low probability of any adverse environmental effects from COPCs at the sites on the basis of the EQ model for black-tailed jackrabbits and sampled biota at Site 39.

C.2 SWMUs 21, 22, 123, 54, and 55 (IRP Site 47)

IRP Site 47 includes, or is near, SWMUs 21, 22, 123, 54, and 55. For the purposes of this risk assessment, this SWMU group will be referred to as Site 47. The previous risk assessment conducted for this POL area (reported in Walk, Haydel, and Associates, 1989) was updated with new data collected during this investigation. This subsection contains the updated quantitative risk assessment results and the ecological assessment. Risk assessment methods are provided in the *RI Report* (Radian, 1992a). The methodology followed during the course of the risk assessment at this site is discussed in section C.1. Only information that pertains specifically to Site 47 is presented here.

C.2.1 Sources and Receiving Media for Site 47 COPCs

Waste oils were stored in drums in a temporary building (since removed) at SWMU 54. Both SWMUs 54 and 55 are covered with gravel. SWMUs 21, 22, and 123 are located adjacent to a washrack. Waste oil, washwater, and fuels from the washrack were routed to the oil/water separators (SWMUs 21 and 22) for processing and waste oil skimmed from the separators was transferred by gravity to the waste oil tank (SWMU 123) via a subsurface pipe. All three units are below the surface and covered with gravel.

Contaminated groundwater occurs in a shallow unconfined aquifer beneath the site approximately 10 ft bgl in the silty sand. Volatile compounds still entrained in the unsaturated zone will volatilize and eventually disperse into the air above the ground surface by simple diffusion.

Releases to Groundwater

Results of chemical analyses at Site 47 show that releases to the groundwater have already occurred and that contaminants are present in the groundwater beneath the SWMUs.

Releases to Surface Water

Some surface runoff may potentially reach Dillard Draw.

Groundwater Migration

It was determined (*RI Report*; Radian, 1992a) that groundwater in this area of the Base flows southeast toward Dillard Draw. There are no known seeps or springs releasing groundwater from this site into Dillard Draw, and this migration route is unlikely to occur.

Uptake by Biota

Although it was assumed that there were no complete human exposure pathways (see Walk, Haydel, and Associates, 1989), intake of groundwater by cattle at a *hypothetical* well located 1.1 miles southwest of the site was assessed. This pathway did not result in unacceptable risk.

Exposure Points and Exposure Routes-Potentially exposed populations at Site 47 consist of workers near the site, on-Base residents, and potential future construction workers on site. Human exposure to contaminants originating from the site may occur in areas close to and downwind from the site via inhalation of the ambient air.

C.2.2 Exposure Pathways

Figure C.2-1 depicts potential pathways for Site 47 contaminants to move from the point of release to the point of human exposure. Pathways that are not complete have been crossed out; footnotes summarize the rationale for considering the pathway incomplete. Pathways that are complete but judged insignificant are indicated with a dashed line. Potentially significant pathways that exist at the site are indicated with a bold, solid line and include:

On-Base Residents

- Inhalation of volatile chemicals
  - volatilization to the air;
  - air dispersion; and
  - inhalation of volatile chemicals.
- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.

Workers Near the Site

- Inhalation of volatile chemicals
  - volatilization to the air;
  - air dispersion; and
  - inhalation of volatile chemicals.
- Inhalation of fugitive dust
  - Fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.

SWMUs 54 and 55, and 21, 22 and 12 Potential Pathways to Human Exposure

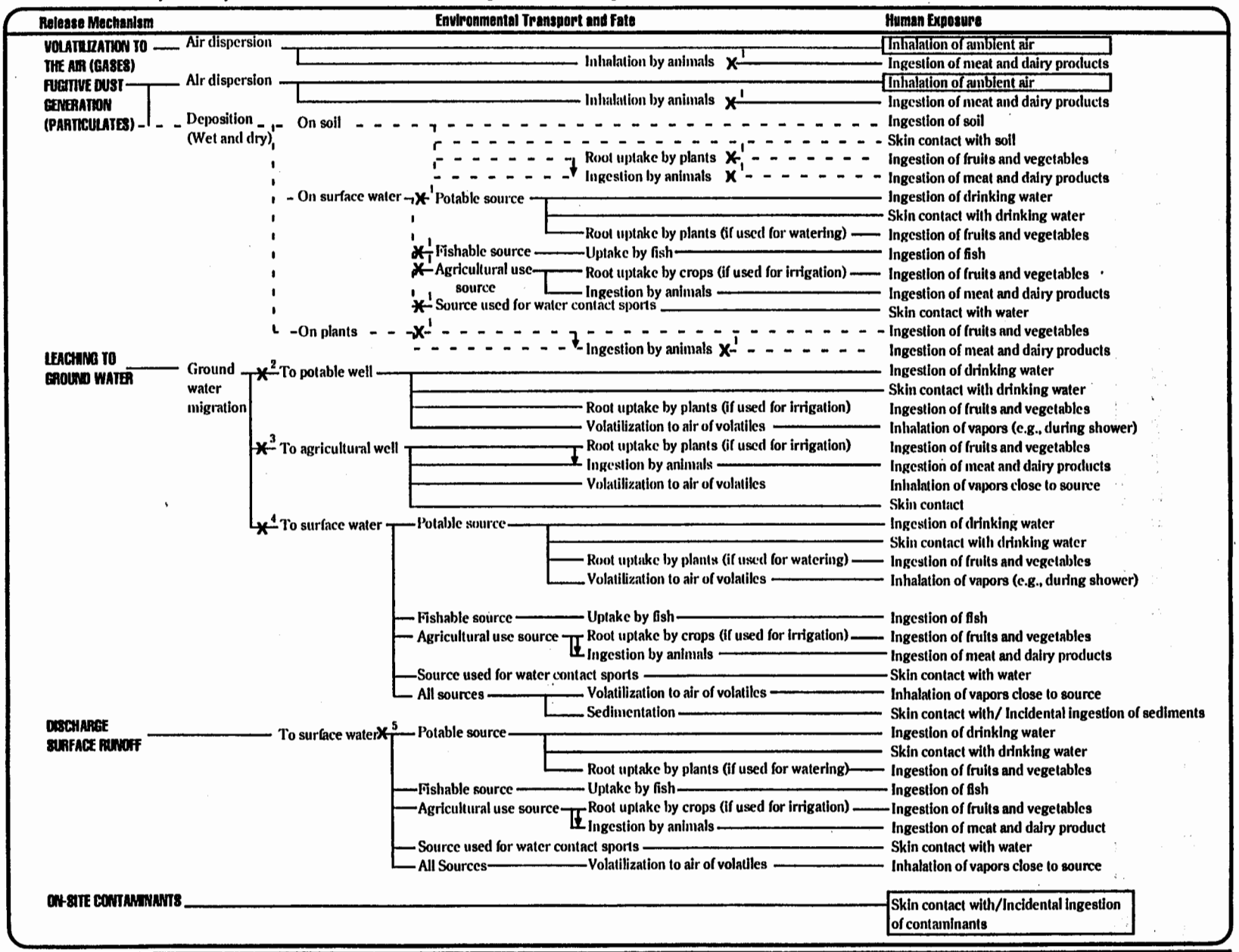


Figure C.2-1. SWMUs 21, 22, 123, 54, and 55 Potential Pathways to Human Exposure

Potential Future Construction Workers

- Inhalation of volatile chemicals
  - volatilization to the air;
  - air dispersion; and
  - inhalation of volatile chemicals.
- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.
- Skin contact with contaminants
- Incidental ingestion of contaminants.

These pathways are quantified in the risk assessment.

Summary of Exposure Pathways to be Quantified in This Assessment

Table C.2-1 identifies potentially exposed populations, exposure media, exposure points, and exposure routes for complete pathways for Site 47. Also noted in this table are the decisions to select pathways for quantitative evaluation and the justification for including each pathway in the risk assessment.

Exposure Scenarios

On-Base residents, on-site potential future construction workers, and on-site recreational receptors represent the significant potentially exposed population. These individuals may be subject to subchronic (i.e., short-term) or chronic (i.e., long-term) exposure to site-related contaminants. Potential site releases would be low level and relatively continuous in nature; residents are not subject to subchronic (two-week to seven-year) exposures that are greater than chronic exposures.

Chronic exposure scenarios are based on predicted future lifetime exposures, whereas subchronic exposure scenarios are based on exposure that occurs within a two-week to seven-year time period. These scenarios assume exposure to contaminant levels predicted by modeled results at the nearest receptors. The three scenarios evaluated in the risk assessment, outlined in Table C.2-2, consist of the following:

- **On-Base Residential**
  - Current; and
  - Future.

Table C.2-1
Potentially Complete Exposure Pathways at SWMUs 21, 22, 123, 54, and 55

Exposure Route, Medium, and Exposure Point	Potentially Exposed Population	Pathway Selected For Evaluation	Reason for Selection or Exclusion
Inhalation of volatile chemicals in ambient air	• Residents living near the SWMUs; • Workers located near the site; and • Future potential construction workers.	Yes	Emissions of volatile chemicals can result in inhalation exposure of nearby residents, workers and future potential construction workers.
Inhalation of fugitive dust in ambient air	• Residents living near the SWMUs; • Workers located near the site; and • Future potential construction workers	Yes	Fugitive dust can disperse in the air resulting in inhalation exposure of nearby residents, workers and future potential construction workers.
Ingestion of contaminated soil	Potential future construction workers	Yes	Future potential construction workers located on-site may inadvertently ingest contaminated soil during construction activities.
Dermal contact with contaminated soil	Potential future construction workers	Yes	Dermal contact with contaminated soil could occur as the result of construction activities on-site.
Deposition of fugitive dust on soil; ingestion and dermal contact with soil	• Residents living near the SWMUs; • Workers located near the site; and • Future potential construciton workers	No	No residences within 1 mile radius of site, dermal contact and ingestion insignificant compared to on-site soil.

Table C.2-2
Exposure Scenarios—SWMUs 21, 22, 123, 54, and 55

Description	Brief Rationale
Chronic Exposure	
On-Base residential • Adult, average • Adult, reasonable maximum • Child, average • Child, reasonable maximum	Currently, the Base houses a residential community for military personnel and families. Both the average and reasonable maximum cases are based on measured and modeled results.
Occupational • Adult, average • Adult, reasonable maximum	Workers are located near the site and may be exposed to site contaminants. Both the average and reasonable maximum cases are based on measured and modeled results.
Subchronic Exposure	
Occupational • Adult, average • Adult, reasonable maximum	Future potential construction workers were assessed to represent a worst-case exposure scenario on-site. Both the average and reasonable maximum cases are based on measured and modeled results.

- **Potential Future Workers Near the Site**

  - Current; and
  - Future.

- **Potential Future On-Site Construction Workers**

  - Future.

Current exposure scenarios are based on current surface soil concentrations, whereas future exposure scenarios use the highest of either surface or subsurface soil concentrations that may be brought to the surface by construction activities.

C.2.3 Toxicity Assessment

Table C3-1 in Attachment 3 presents toxicity values used in the risk assessment for the COPCs with potential for human exposure at Site 47. Toxicity profiles are included in Attachment 3 as well.

C.2.4 Risk Characterization

The following subsections describe the carcinogenic and noncarcinogenic risk characterization for the three exposure scenarios identified for Site 47.

- On-Base residential exposure;
- Occupational exposure for workers located near the site; and
- On-site potential future construction worker exposure.

C.2.4.1 Risk Characterization for the On-Base Residential Scenario

Currently, the only complete exposure pathways are the inhalation of volatile chemicals in ambient air and the inhalation of fugitive dust. For this scenario, exposure concentrations were based on modeled air concentrations.

Current carcinogenic risk for adults is 1E-10 and 2E-10 for average and reasonable maximum exposure, respectively. Since concentrations of carcinogenic COPCs in the surface soil are higher than subsurface concentrations, future risk based on potential future construction activities in which subsurface soil is brought to the surface is higher than present risk. There is currently no noncarcinogenic hazard index, since none of the COPCs have noncarcinogenic toxicity values. The future hazard indices for average and reasonable maximum exposures in adults and children are 3E-12 and 5E-12, respectively. The carcinogenic and noncarcinogenic risk values resulting from on-Base residential exposure are well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.2.4.2 Risk Characterization for Workers Near the Site Scenario

There are no workers directly on site; however, workers located near the site may be exposed to contaminants via inhalation of volatiles and fugitive dust. For this scenario, exposure concentrations were based on modeled air concentrations.

Present average and reasonable maximum carcinogenic risks for workers are 2E-07 and 3E-07, respectively. Future average and reasonable maximum carcinogenic risks for workers are 5E-06 and 1E-05, respectively. There is currently no noncarcinogenic hazard index, since the COPCs do not have noncarcinogenic risk values. Future average and reasonable maximum noncarcinogenic hazard indices are 1E-05 and 3E-05. Future noncarcinogenic risk is contributed by benzene. Both carcinogenic and noncarcinogenic risks are well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.2.4.3 Risk Characterization for the Potential Future Construction Worker Scenario

Potential future construction workers may be exposed via inhalation of ambient air, dermal contact with soil, and incidental ingestion of soil. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in air.

The average and reasonable maximum carcinogenic risk for construction workers is 1E-08 and 2E-08, respectively. The average and reasonable maximum hazard indices are 1E-02 and 1E-02, respectively. Both carcinogenic and noncarcinogenic risk values resulting from future construction worker exposure are well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.2.5 Environmental Evaluation

The previous risk assessment conducted by Walk, Haydel, and Associates (1989) assessed risk to cattle ingesting groundwater at a hypothetical well located 1.1 miles southwest of the site. Groundwater is not used as livestock water because of high salinity; therefore, this pathway was assessed only in an effort to be conservative. The pathway did not result in unacceptable risk to cattle. Uptake by plants and intake by and risks to jackrabbits were calculated in this risk assessment.

Contaminants of Concern

All soil and groundwater contaminants detected at Site 47 were included as COPCs for the ecological assessment, with the exception of total hydrocarbons. COPCs are presented in Tables C.2-3 and C.2-4. Ninety-fifth percentile UCL concentrations (see Attachment 1) were used in the ecological risk assessment.

Exposure Characterization

Exposure to COPCs at Site 47 is possible through ingestion of contaminated soils, dermal contact with contaminated soils, and inhalation of volatiles and fugitive dust released to the air. Although the primary routes of exposure for black-tailed jackrabbits (i.e., ingestion of contaminants taken up by plants and incidental ingestion of soil while foraging and from grooming activities) are not present at this site because of the lack of vegetation, the model was run to assess future environmental effects if the site were allowed to revert to native vegetation. These are the only pathways quantified. Although other routes of exposure contribute to the risk, this contribution is expected to be minimal compared with the risk from ingestion.

Risk Characterization

The EQ for black-tailed jackrabbits at Site 47 is 1.1. Although no vegetation is currently on site, on the basis of the EQ model for black-tailed jackrabbits, there is low probability of any adverse environmental effects from COPCs at Site 47, if the site were allowed to revert to native vegetation. Calculated plant uptake and EQs are presented in Tables C.2-3 and C.2-4.

Table C.2-3
Concentrations in Plants
Holloman AFB, New Mexico: For Environmental Evaluation
SWMUs 21, 22, 123, 54, and 55

Chemical	Cw (mg/kg)	UF (veg.) (mg/kg plant/ mg/kg water)	Cp[ab] (mg/kg)
Groundwater			
Arsenic	0.132347	0.0088	1.16e-03
Barium	0.946336	0.033	0.0312000000
Beryllium	0.016466	0.0022	0.0000362000
Chromium	0.119405	0.0017	0.0002030000
Lead	0.080961	0.0099	0.0008020000
4-Methyl-2-pentanone (MIBK)	0.033492	1	0.0335000000
Benzene	1.629923	0.5004	0.8160000000
Ethyl benzene	8.656116	0.1287	1.1100000000
Naphthalene	0.012785	0.0961	0.0012300000
Tetrachloroethene	0.031531	0.2938	0.0092600000
Toluene	0.181601	0.2375	0.0431000000
Xylene (total)	0.396601	0.1112	0.0441000000
Chemical	**CS (mg/kg)**	**UF (veg.) (mg/kg plant/ mg/kg soil)**	**CP[ab] (mg/kg)**
Surface Soil			
Arsenic	3.7607349	0.0088	0.0331000000
Barium	77.892383	0.033	2.5700000000
Cadmium	2.1148156	0.121	0.2560000000
Chromium	25.825154	0.0017	0.0439000000
Lead	202.19035	0.0099	2.0000000000
Selenium	2.2720276	0.0055	0.0125000000
2-Methylnaphthalene	0.201	0.05	0.0101000000
Benzo(a)anthracene	0.0837	0.0049	0.0004100000
Chrysene	0.0837	0.0049	0.0004100000
Methylene chloride	0.0025806	1	0.0025800000
Naphthalene	0.0931	0.0961	0.0089500000
Phenanthrene	0.0695	0.0225	0.0015600000
Pyrene	0.0438	0.0086	0.0003770000

Table C.2-3
(Continued)

Chemical	CS (mg/kg)	UF (veg) (mg/kg plant/ mg/kg soil)	CP[a,b] (mg/kg)
Subsurface Soil			
Arsenic	2.7296552	0.0088	0.0240000000
Cadmium	0.3342787	0.121	0.0404000000
Chromium	8.932952	0.0017	0.0152000000
Mercury	0.005999	0.198	0.0011900000
Selenium	2.9439092	0.0055	0.0162000000
1,1-Dichloroethene	0.8900293	1	0.8900000000
2-Hexanone	0.0026434	1	0.0026400000
2-Methylnaphthalene	1.1613911	0.05	0.0581000000
4-Methyl-2-pentanone (MIBK)	0.0017245	1	0.0017200000
Acetone	0.1178283	1	0.1180000000
Benzene	4.5423252	0.5004	2.2700000000
Carbon disulfide	0.00791	0.4808	0.0038000000
Dibenzofuran	0.269	0.0354	0.0095200000
Ethylbenzene	21.207988	0.1287	2.7300000000
Methylene chloride	0.0032763	1	0.0032800000
Naphthalene	0.262	0.0961	0.0252000000
Toluene	25.868239	0.2375	6.1400000000
Trichloroethene	0.0015994	2.2938	0.0036700000
Xylene (total)	28.809276	0.1112	3.2000000000

[a] Groundwater

Cp = (Cw)(UF)

where:

Cp = concentration in plant - from water uptake (mg/kg)
Cw = concentration in groundwater (mg/kg)
UF = uptake factor (mg/kg plant divided by mg/kg water)

[b] Surface soil and subsurface soil uptake

Cp = (Cs)(UF)

where:

Cp = concentration in plant - as a result of uptake from soil (mg/kg)
Cs = concentration in contaminated soil (mg/kg)
UF = uptake factor (mg/kg plant divided by mg/kg soil)

Table C.2-4

Intake by Block-tailed Jackrabbits (As a Result of Plant Ingestion) and Ecological Risk Characterization IRP Site 47, Holloman AFB, New Mexico

Chemical	B	Flt	Cdr (mg/kg)	IRdr (kg/day)	Flt	Csr (mg/kg)	IRsr (kg/day)	Fls	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOEL (mg/kg-day)	Ecological Quotient
Subsurface Soil Contaminants													
Arsenic	1.0	1.0	2.40e-02	0.0091	1.0	0.00e+00	0.0819	1.0	2.73e+00	0.004	4.05e-03	0.7	5.79e-03
Cadmium	1.0	1.0	4.04e-02	0.0091	1.0	0.00e+00	0.0819	1.0	3.34e-01	0.004	6.20e-04	0.03	2.07e-02
Chromium	1.0	1.0	1.52e-02	0.0091	1.0	0.00e+00	0.0819	1.0	8.93e+00	0.004	1.30e-02	2.4	5.43e-03
Mercury	1.0	1.0	1.19e-03	0.0091	1.0	0.00e+00	0.0819	1.0	6.00e-03	0.004	1.27e-05	0.003	4.22e-03
Selenium	1.0	1.0	1.62e-02	0.0091	1.0	0.00e+00	0.0819	1.0	2.94e+00	0.004	4.34e-03	31.6	1.37e-04
1,1-Dichloroethene	1.0	1.0	8.90e-01	0.0091	1.0	0.00e+00	0.0819	1.0	8.90e-01	0.004	4.24e-03	1	4.24e-03
2-Hexanone	1.0	1.0	2.64e-03	0.0091	1.0	0.00e+00	0.0819	1.0	2.64e-03	0.004	1.26e-05	400	3.15e-08
2-Methylnaphthalene	1.0	1.0	5.81e-02	0.0091	1.0	0.00e+00	0.0819	1.0	1.16e+03	0.004	1.69e+00	272	6.21e-03
4-Methyl-2-pentanone (MIBK)	1.0	1.0	1.72e-03	0.0091	1.0	0.00e+00	0.0819	1.0	1.72e-03	0.004	8.21e-06	347	2.37e-08
Acetone	1.0	1.0	1.18e-01	0.0091	1.0	0.00e+00	0.0819	1.0	1.18e-01	0.004	5.61e-04	100	5.61e-06
Benzene	1.0	1.0	2.27e+00	0.0091	1.0	0.00e+00	0.0819	1.0	4.54e+00	0.004	1.41e-02	1	1.41e-02
Carbon disulfide	1.0	1.0	3.80e-03	0.0091	1.0	0.00e+00	0.0819	1.0	1.32e-02	0.004	3.18e-05	11	2.89e-06
Dibenzofuran	1.0	1.0	9.53e-03	0.0091	1.0	0.00e+00	0.0819	1.0	4.71e-01	0.004	7.17e-04	NA	
Ethylbenzene	1.0	1.0	2.73e+00	0.0091	1.0	0.00e+00	0.0819	1.0	2.12e+01	0.004	3.99e-02	97.1	4.11e-04
Methylene chloride	1.0	1.0	3.28e-03	0.0091	1.0	0.00e+00	0.0819	1.0	3.28e-03	0.004	1.56e-05	5.85	2.67e-06
Naphthalene	1.0	1.0	2.52e-02	0.0091	1.0	0.00e+00	0.0819	1.0	4.02e-01	0.004	6.68e-04	450	1.48e-06
Toluene	1.0	1.0	6.14e+00	0.0091	1.0	0.00e+00	0.0819	1.0	2.59e+01	0.004	5.80e-02	223	2.60e-04
Trichloroethene	1.0	1.0	3.67e-03	0.0091	1.0	0.00e+00	0.0819	1.0	1.60e-03	0.004	1.45e-05	50	2.89e-07
Xylene (total)	1.0	1.0	3.20e+00	0.0091	1.0	0.00e+00	0.0819	1.0	2.88e+01	0.004	5.25e-02	179	2.93e-04
Surface Soil Contaminants													
Arsenic	1.0	1.0	0.00e+00	0.0091	1.0	3.31e-02	0.0819	1.0	3.76e+00	0.004	6.46e-03	0.7	9.22e-03
Barium	1.0	1.0	0.00e+00	0.0091	1.0	2.57e+00	0.0819	1.0	7.79e+01	0.004	1.90e-01	0.7	2.71e-01
Cadmium	1.0	1.0	0.00e+00	0.0091	1.0	2.56e-01	0.0819	1.0	2.11e+00	0.004	1.07e-02	0.03	3.57e-01
Chromium	1.0	1.0	0.00e+00	0.0091	1.0	4.39e-02	0.0819	1.0	2.58e+01	0.004	3.89e-02	2.4	1.62e-02

Table C.2-4

(Continued)

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOEL (mg/kg-day)	Ecological Quotient
Subsurface Soil Contaminants													
Lead	1.0	1.0	0.00e+00	0.0091	1.0	2.00e+00	0.0819	1.0	2.02e+02	0.004	3.54e-01	0.9	3.93e-01
Selenium	1.0	1.0	0.00e+00	0.0091	1.0	1.25e-02	0.0819	1.0	2.27e+00	0.004	3.68e-03	31.6	1.16e-04
2-Methylnaphthalene	1.0	1.0	0.00e+00	0.0091	1.0	1.01e-02	0.0819	1.0	2.01e-01	0.004	5.92e-04	272	2.18e-06
Benzo(a)anthracene	1.0	1.0	0.00e+00	0.0091	1.0	4.10e-04	0.0819	1.0	8.37e-02	0.004	1.34e-04	26.7	5.02e-06
Chrysene	1.0	1.0	0.00e+00	0.0091	1.0	4.10e-04	0.0819	1.0	8.37e-02	0.004	1.34e-04	26.7	5.02e-06
Methylene chloride	1.0	1.0	0.00e+00	0.0091	1.0	2.58e-03	0.0819	1.0	2.58e-03	0.004	8.06e-05	5.85	1.38e-05
Naphthalene	1.0	1.0	0.00e+00	0.0091	1.0	8.95e-03	0.0819	1.0	9.31e-02	0.004	4.02e-04	450	8.93e-07
Phenanthrene	1.0	1.0	0.00e+00	0.0091	1.0	1.56e-03	0.0819	1.0	6.95e-02	0.004	1.48e-04	26.7	5.53e-06
Pyrene	1.0	1.0	0.00e+00	0.0091	1.0	3.77e-04	0.0819	1.0	4.38e-02	0.004	7.49e-05	133.3	5.62e-07
Groundwater Contaminants													
Arsenic	1.0	1.0	1.16e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.85e-06	0.7	5.51e-06
Barium	1.0	1.0	3.12e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.03e-04	0.7	1.48e-04
Beryllium	1.0	1.0	3.62e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.20e-07	0.62	1.93e-07
Chromium	1.0	1.0	2.03e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	6.72e-07	2.4	2.80e-07
Lead	1.0	1.0	8.02e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.65e-06	0.9	2.95e-06
4-Methyl-2-pentanone (MIBK)	1.0	1.0	3.35e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.11e-04	347	3.19e-07
Benzene	1.0	1.0	8.16e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.70e-03	1	2.70e-03
Ethylbenzene	1.0	1.0	1.11e+00	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.69e-03	97.1	3.80e-05
Naphthalene	1.0	1.0	1.23e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.07e-06	450	9.03e-09
Tetrachloroethene	1.0	1.0	9.26e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.07e-05	14	2.19e-06
Toluene	1.0	1.0	4.31e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.43e-04	223	6.40e-07
Xylene (total)	1.0	1.0	4.41e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.46e-04	179	8.15e-07
												Total EQ	1.11

Table C.2-4
(Continued)

IN = (B) [(FIf) (Cdr) (IRdr)+(FIf)(Csr)(IRsr)+(FIs)(Cs)(IRs)]/BW

where:

IN	=	Intake of contaminants of potential concern (mg/kg-day)
B	=	Fraction of contaminant in feed which is bioavailable (unitless)
FIf	=	Fraction ingested of food (feed) from contaminated source (unitless)
Cdr	=	Chemical concentration in deep-rooted plants (mg/kg)
Csr	=	Chemical concentration in shallow-rooted plants (mg/kg)
IRdr	=	Ingestion rate deep-rooted plants (kg/day)
IRsr	=	Ingestion rate for shallow-rooted plants (kg/day)
FIs	=	Fraction of soil ingested from contaminated source (unitless)
Cs	=	Chemical concentration in soil (mg/kg)
IRs	=	Ingestion rate for soil (kg/day)
BW	=	2.75 kg for *Lepus californicus*

This Page Intentionally Left Blank

C.3 SWMUs 118, 132, and AOC-A (IRP Site 16)

IRP Site 16 includes, or is near, SWMUs 118, 132, and AOC-A. For the purposes of this risk assessment, this SWMU group will be referred to as Site 16. The previous risk assessment conducted for the existing Entomology Shop area appeared in the *RI Report*, (Radian, 1992a), and was updated with new data collected during this investigation. This subsection contains the updated quantitative risk assessment results and the ecological assessment. Risk assessment methods are provided in the *RI Report*. The methodology followed during the course of the risk assessment at this site is discussed in section C.1. Only information that pertains specifically to Site 16 is presented here.

C.3.1 Sources and Receiving Media for Site 16 COPCs

The former Entomology Shop Area was located in Building 21. Prior to 1988, rinse water from washing and mixing equipment was discharged into a pit/boring on the northwest side of the building. Site topography is relatively flat. The area is covered with gravel and there is no natural vegetation.

Contaminated groundwater occurs in a shallow unconfined aquifer beneath the site approximately 5 ft bgl in the silty sand deposits. Volatile compounds still entrained in the soil unsaturated zone will volatilize and eventually disperse into the air above the ground surface by simple diffusion.

Releases to Groundwater

Results of chemical analyses at Site 16 show that releases to the groundwater have already occurred and that contaminants are present in the groundwater beneath the site.

Releases to Surface Water

Some surface runoff may potentially reach either Dillard Draw (southeast of the site) or the sewage lagoons (to the southwest).

Groundwater Migration

It was determined (*RI Report*; Radian, 1992a) that groundwater in this area of the Base flows southeast toward Dillard Draw. There are no known seeps or springs releasing groundwater from Site 16 into Dillard Draw.

Uptake by Biota

Previously, it was assumed that human exposure could occur via ingestion of plants, meat, and dairy products. Pathways involving these media were assessed and risk was well below the acceptable levels. The carcinogenic risk ranged from 1E-13 to 5E-13 and the hazard index values were 4E-10 to 7E-09.

Exposure Points and Exposure Routes

Potentially exposed populations consist of on-Base residents, occasional recreational receptors on site (the now-vacant site is adjacent to a soccer field where children tend to play during games), and potential future construction workers on site. There are currently no on-site workers and, because of the small size of the site, workers located nearby are not expected to be adversely affected by site contaminants. Since 24-hour residential exposure near the site is assessed here, nearby workers were not assessed. Human exposure to contaminants originating from Site 16 may occur in areas close to and downwind from the site via inhalation of the ambient air.

Previously, a hypothetical future scenario was considered to evaluate a worst-case exposure to provide additional justification for the no-action decision for those sites found to present acceptable long-term health risks. The future scenario evaluates a hypothetical off-Base resident located downwind and downgradient of Site 16. Exposure of the hypothetical resident to contaminants may occur: 1) in areas close to and downwind of the site via inhalation of the ambient air; and 2) via use of contaminated surface water for drinking water, bathing, and/or irrigation of home-grown vegetables and fruits (if contaminated groundwater discharges to surface water or is drawn from a well). Use of the contaminated surface water as a deep water supply for beef or dairy cows can also indirectly lead to human exposure to contaminants originating at Site 16. These pathways are highly conservative and, since there are no complete groundwater pathways, they are not assessed here (the inhalation pathway is assessed for on-Base residents).

C.3.2 Exposure Pathways

Figure C.3-1 depicts potential pathways for Site 16 contaminants to move from the point of release to the point of human exposure. Pathways that are not complete have been crossed out; footnotes summarize the rationale for considering the pathway incomplete. Pathways that are complete but judged insignificant are indicated with a dashed line. Potentially significant pathways that exist at the site are indicated with a bold, solid line and include:

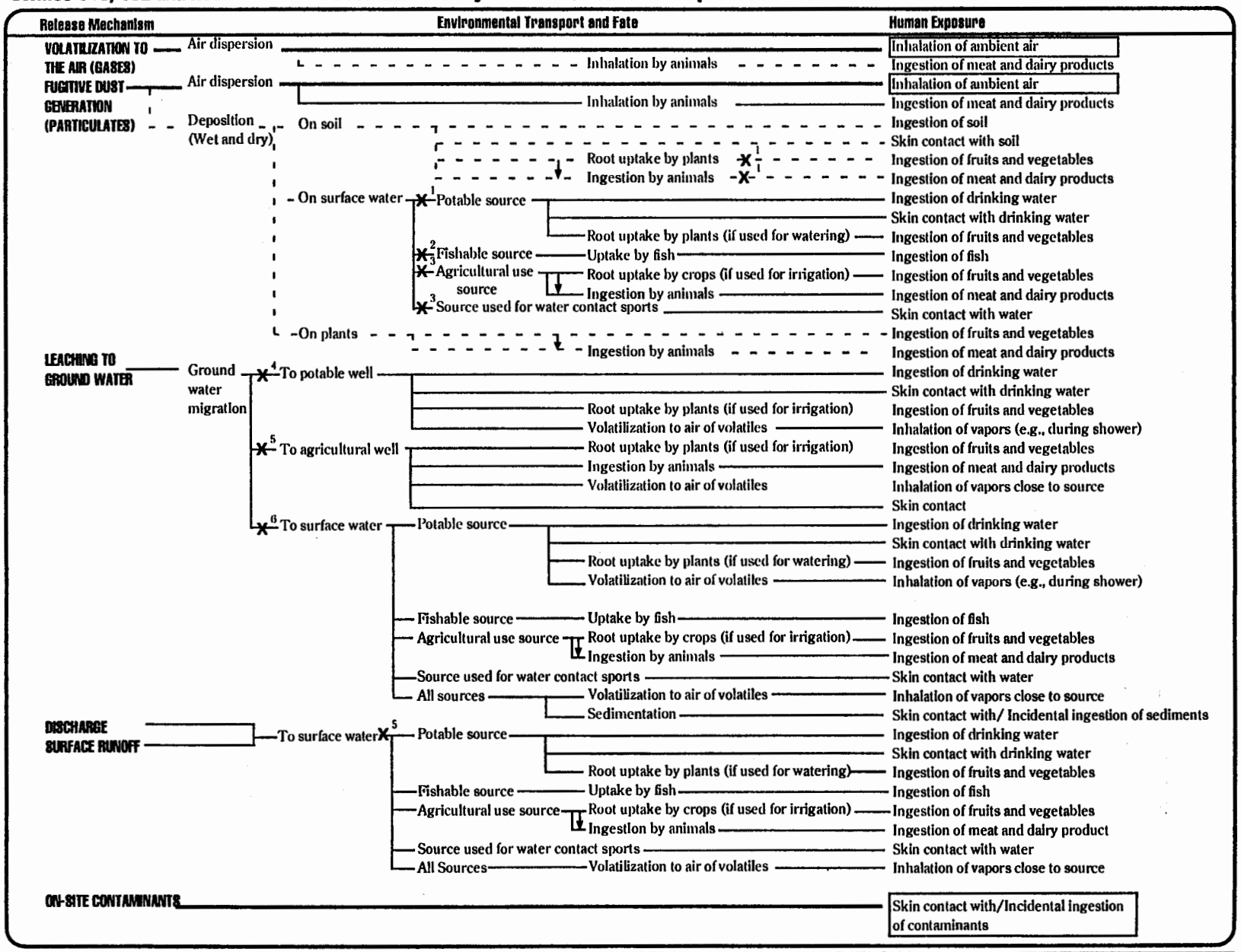


Figure C.3-1. SWMUs 118, 132, and AOC-A Potential Future Pathways to On-Site Residential Exposure

On-Base Residents

- Inhalation of volatile chemicals
  - volatilization to the air;
  - air dispersion; and
  - inhalation of volatile chemicals.
- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.

On-Site Receptors (Recreational Receptors and Potential Future Construction Workers)

- Inhalation of volatile chemicals
  - volatilization to the air;
  - air dispersion; and
  - inhalation of volatile chemicals.
- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.
- Skin contact with/incidental ingestion of contaminants
  - on-site contaminants; and
  - skin contact with/incidental ingestion of contaminants.

These pathways are quantified in the risk assessment.

Summary of Exposure Pathways to be Quantified in This Assessment

Table C.3-1 identifies potentially exposed populations, exposure media, exposure points, and exposure routes for complete pathways for Site 16. Also noted in this table are the decisions to select pathways for quantitative evaluation and the justification for including each pathway in the risk assessment.

Exposure Scenarios

On-Base residents, on-site potential future construction workers, and on-site recreational receptors represent the significant potentially exposed population. These individuals may be subject to subchronic (i.e., short-term) or chronic (i.e., long-term) exposure to site-related contaminants. Potential site releases would be low level and relatively continuous in nature; residents are not subject to subchronic (i.e., two-week to seven-year) exposures that are greater than chronic exposures.

Table C.3-1
Potentially Complete Exposure Pathways at SWMUs 118, 132, and AOC-A

Exposure Route, Medium, and Exposure Point	Potentially Exposed Population	Pathway Selected For Evaluation	Reason for Selection or Exclusion
Inhalation of volatile chemicals in ambient air.	• Residents living near Site 16; • Potential future construction workers; and • On-site recreational receptor	Yes	Emissions of volatile chemicals can result in inhalation exposure of nearby residents and people involved in recreational activities on the site. Potential future construction workers on-site may also inhale volatiles.
Inhalation of fugitive dust in ambient air.	• Residents living near Site 16; • Potential future construciton workers; and • On-site recreational receptors	Yes	Fugitive dust can disperse in the air resulting in inhalation exposure of nearby residents and people involved in recreational activities. Future potential construction workers may also inhale fugitive dust.
Ingestion of contaminated soil.	• People using land for recreational purposes; and • Future potential construction workers.	Yes	People involved in recreational activities, as well as workers on-site, inadvertently ingest contaminated soil.
Dermal contact with contaminated soil.	• People using land for recreational purposes; • Potential fuure construction workers.	Yes	Dermal contact with contaminated soil could occur as the result of engaging in recreational activities or working on-site.
Deposition of fugitive dust on soil or plans; ingestion or dermal contact.	• Residents living near Site 16; • Potential future construction workers; and • On-site recreational receptors	No	Due to small size of the site and gravel cover, this pathway is considered insignificant.

Chronic exposure scenarios are based on predicted future lifetime exposures, whereas subchronic exposure scenarios are based on exposure that occurs within two to seven years. These scenarios assume exposure to contaminant levels predicted by modeled results at the nearest receptors. The three scenarios evaluated in the risk assessment, outlined in Table C.3-2, consist of the following:

- **On-Base Residential**
  - Current; and
  - Future.
- **On-Site Recreational**
  - Current; and
  - Future.
- **Potential Future On-Site Construction Workers**
  - Future.

Although the previous risk assessment (Radian, 1992a) did not discuss on-site recreational exposure at this site, a soccer field is located across the street from the site. This field is mainly used for practice; however, the "pee-wee" league currently plays 10 games per year at the field. (The games are held five months out of the year.) During the games, which are about 2 hours long, families are present and children tend to cross the street and play at the site. Therefore, exposure frequency is set at 10 days per year. During practices, families are generally not present, since children either ride their bikes or are dropped off. Children are rarely on the soccer teams for more than three years, since this is the average tour of duty. To be consistent with the assumptions used in the previous risk assessment, a worst-case scenario for exposure duration of nine years was used. Tables C.3-3, C.3-4, and C.3-5 list the exposure assumptions for recreational on-site exposure.

C.3.3 Toxicity Assessment

Table C3-1 in Attachment 3 presents toxicity values used in the risk assessment for the COPCs with potential for human exposure at Site 16. Toxicity profiles are included in Attachment 3 as well.

Table C.3-2
Exposure Scenarios SWMUs 118, 132, AOC-A

Description	Brief Rationale
Chronic Exposure	
On-Base residential • Adult, average • Adult, reasonable maximum • Child, average • Child, reasonable maximum	Currently, the Base houses a residential community for military personnel and families. Both the average and reasonable maximum cases are based on measured concentrations and modeled results.
Recreational • Child, average • Child, reasonable maximum	The site is located adjacent to a soccer field and children tend to play at the site while soccer games are played across the street. Both the average and reasonable maximum cases are based on measured and modeled results.
Subchronic Exposure	
Occupational • Adult, average • Adult, reasonable maximum	Potential future construction workers were assessed to represent a worst-case exposure scenario on-site. There are currently no on-site workers. Both the average and reasonable maximum cases are based on measured and modeled results.

Table C.3-3
Potential Exposure from Inhalation of Ambient Air
(Volatile Chemicals and Fugitive Dust)
Recreational Scenario for SWMUs 118, 132, and AOC-A

Effective Air Concentration (EAC), (ug/m³) = (CA x IRA x ET x EF X ED)/(IRD X CF X AT)	Assumptions	
	Child	
Parameters	Average	Reasonable Maximum
CA = Chemical Concentration in Ambient Air (ug/m³)	Chemical-specific [a]	Chemical-specific [a]
IRA = Inhalation Rate of Ambient Air (m³/hour)	2.4 [b]	2.4 [b]
ET = Exposure Time (hours/day)	2 [c]	2 [c]
EF = Exposure Frequency (days/year)	10 [d]	10 [d]
ED = Exposure Duration (years)	9 [e]	9 [e]
IRD = Inhalation Rate per Remainder of Day (m³/hour)	0.96 [f]	0.96 [f]
CF = Conversion Factor (hour/day)	24	24
AT = Averaging Time (period over which exposure is averaged--days) -Noncarcinogenic effects	3285 [g]	3285 [g]

[a] See tables in Attachment 2 for concentrations in ambient air.
[b] Child, averaged for ages 8 through 17, moderate activity level; EPA, 1989b.
[c] Assumes children spend 2 hours per day on-site.
[d] Assumes children play on-site whenever there is a soccer game across the street (10 days/year).
[e] National media time (50th percentile) at one residence; EPA, 1989b.
[f] Children, average for ages 8 through 17, prorated for activity levels; EPA, 1989b.
[g] ED x 365 days/year.

Table C.3-4
Potential Exposure from Ingestion of Contaminated Soil
Recreational Scenario at SWMUs 118, 132, and AOC-A

Intake (mg/kg-day) = (CS x IR x CF x EF x ED)/(BW x AT)	Assumptions	
Parameters	Average	Reasonable Maximum
CS = Chemical Concentration in Soil (mg/kg)	Chemical-specific [a]	Chemical-specific [a]
IR = Ingestion Rate (mg soil/day)	1000 [b]	1000 [b]
CF = Conversion Factor (kg/mg)	1E-06	1E-06
FI = Fraction Ingested from contaminated source (unitless)	1 [c]	1 [c]
EF = Exposure Frequency (days/year)	10 [d]	10 [f]
ED = Exposure Duration (years)	9 [e]	9 [e]
BW = Body Weight (kg)	49 [f]	49 [f]
AT = Averaging Time (period over which exposure is averaged--days) -Noncarcinogenic effects	3285 [g]	3285 [g]

[a] See tables in Attachment 1 for concentrations in soil.

[b] Amount of soil consumed per day while participating in outdoor recreational activities (e.g., baseball). Represents an upper-range ingestion rate for children; EPA, 1989b.

[c] Assumes 100% of soil consumption is from contaminated source.

[d] Assumes children play on-site whenever there is a soccer game across the street (10 days/year).

[e] National median time (50th percentile) at one residence; EPA 1989b.

[f] Body weight averaged for ages 8 through 17; EPA, 1991.

[g] ED x 365 days/year.

Table C.3-5

Potential Exposure from Dermal Contact with Chemicals in Contaminated Soil - Recreational Scenario SWMUs 118, 132, and AOC-A

Intake (mg/kg-day) = (CS x CF x SA x AF x ABS x EF x ED) / (BW x AT)	Assumptions	
Parameters	Average	Reasonable Maximum
CS = Chemical Concentration in Soil (mg/kg)	Chemical-Specific [a]	Chemical-Specific [a]
CF = Conversion Factor (kg/mg)	1E-06	1E-06
SA = Skin Surface Area Available for Contact (cm^2/event)	4620 [b]	4620 [b]
AF = Soil to Skin Adherence Factor (mg/cm^2)	2.77 [c]	2.77 [c]
ABS = Absorption Factor (unitless)	Chemical-Specific [d]	Chemical-Specific [d]
EF = Exposure Frequency (events/year)	175 [e]	175 [e]
ED = Exposure Duration (years)	9 [f]	9 [f]
BW = Body Weight (kg)	49 [g]	49 [g]
AT = Averaging Time (period over which exposure is averaged--days) -Noncarcinogenic effects	3285 [h]	3285 [h]

[a] See tables in Attachment 1 for concentrations in soil.

[b] Children involved in recreational activities, averaged for ages 8 through 17 (means skin surface area for forearms, hands, lower legs, and head); EPA 1989b.

[c] Kaolin clay (for hands); EPA, 1989a.

[d] Chemical-specific absorption factors for organic and inorganic compounds.

[e] Assumes children play on-site whenever there is a soccer game (10 games/year).

[f] National median time (50th percentile) at one residence; EPA, 1989b.

[g] Body weight averaged for ages 8 through 17; EPA, 1989b.

[h] ED x 365 days/year.

C.3.4 Risk Characterization

The following subsections describe the carcinogenic and noncarcinogenic risk characterization for the three exposure scenarios identified for Site 16.

- On-Base residential exposure;
- On-site potential future construction worker exposure; and
- On-site recreational exposure.

C.3.4.1 Risk Characterization for the Current On-Base Residential Scenario

Currently, the only complete exposure pathways are the inhalation of volatile chemicals in ambient air and the inhalation of fugitive dust. For this scenario, exposure concentrations were based on modeled air concentrations.

The average and reasonable maximum carcinogenic risks for adults are 4E-10 and 3E-09, respectively. The average and reasonable maximum hazard indices for adults and children are 2E-13 and 6E-13, respectively. The carcinogenic and noncarcinogenic risk values resulting from on-Base residential exposure are both well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.3.4.2 Risk Characterization for the Potential Future Construction Worker Scenario

Potential future construction workers may be exposed via inhalation of ambient air, dermal contact with soil, and ingestion of soil. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in the air.

The average and reasonable maximum carcinogenic risk for construction workers is 3E-08 and 1E-07, respectively. The average and reasonable maximum hazard index is 3E-02 and 2E-01, respectively. The carcinogenic and noncarcinogenic risk values resulting from potential future construction worker exposure are both well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.3.4.3 Risk Characterization for the On-Site Recreational Scenario

Children may be exposed to site contaminants via the same pathways as construction workers are, both currently and in the future. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in the air.

The current average and reasonable maximum hazard indices for children are 0.01 and 0.08, respectively. The future average and reasonable maximum hazard indices are 0.01 and 0.08, respectively. The noncarcinogenic risk values resulting from current and future on-site recreational exposure are well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.3.5 Environmental Evaluation

All soil and groundwater contaminants detected at Site 16 were included as COPCs for the ecological assessment, with the exception of TRPH. COPCs are presented in Tables C.3-6 and C.3-7, respectively, for plant uptake and jackrabbit intake, below.

The EQ for black-tailed jackrabbits at Site 16 is 5E-02. Although the site is currently gravel covered and unvegetated, the EQ indicates that, if the site were allowed to revert to native vegetation, there is a low probability of any adverse environmental effects from COPCs at the site. Calculated plant uptake and EQs are presented in Tables C.3-6 and C.3-7, respectively.

Table C.3-6
Concentrations in Plants as a Result of Uptake From Contaminated Groundwater and Soil

Chemical	Cw (mg/kg)	UF (veg.) (mg/kg plant / mg/kg water)	Cp (mg/kg)
Groundwater			
1,1,1-Trichloroethane	1.76E-02	0.3182	5.59E-03
1,1-Dichloroethane	5.91E-03	1	5.91E-03
1,2-Dichlorobenzene	2.10E-05	0.0948	1.99E-06
1,3-Dichlorobenzene	5.80E-05	0.0948	5.50E-06
1,4-Dichlorobenzene	3.38E-04	0.0935	3.16E-05
4,4'-DDE	1.40E-05	0.0044	6.16E-08
4,4'-DDT	1.50E-05	0.0023	3.45E-08
Benzene	3.70E-04	0.5004	1.85E-04
Chlorobenzene	5.35E-02	0.1945	1.04E-02
Chloroform	4.52E-03	0.6191	2.80E-03
Dieldrin	5.80E-05	0.0368	2.13E-06
Endosulfan I	1.70E-05	0.0756	1.29E-06
Endosulfan sulfate	6.70E-05	0.0653	4.38E-06
Endrin	7.60E-05	0.0049	3.72E-07
Endrin aldehyde	1.20E-04	0.0049	5.88E-07
Ethylbenzene	7.70E-05	0.1287	9.91E-06
Heptachlor epoxide	6.80E-05	0.0662	4.50E-06
Methyl parathion	3.20E-05	0.564	1.80E-05
Methylene chloride	1.67E-02	1	1.67E-02
Trichloroethene	2.23E-02	0.2938	6.55E-03
alpha-BHC	3.89E-04	0.0535	2.80E-05
gamma-BHC	3.42E-04	0.1142	3.91E-05

Table C.3-6
(Continued)

Chemical	Cs (mg/kg)	UF (veg.) (mg/kg plant / mg/kg soil)	Cp (mg/kg)
Surface Soil			
2.4,5-T	1.17E-02	1	1.17E-02
2,4,5-TP (Silvex)	1.52E-02	0.3312	5.02E-03
4,4'-DDD	3.37E-02	0.0029	9.77E-05
4,4'-DDT	4.19E-02	0.0023	9.63E-05
Acetone	7.69E-01	1	7.69E-01
Aldrin	3.25E-02	0.0095	3.08E-04
Chlorpyrifos (Dursban)	5.31E-01	0.0216	1.15E-02
Coumaphos	2.34E-03	NA	0.00E+00
Diazinon	7.79E-02	0.0726	5.66E-03
Dichlorvos	4.85E-02	1	4.85E-02
Dieldrin	3.16E-02	0.0368	1.16E-03
Dinoseb	6.13E-02	0.0627	3.85E-03
Endrin	2.82E-02	0.0049	1.38E-04
Endrin Aldehyde	1.11E-02	0.0049	5.45E-05
Fenthion	1.24E-02	0.0368	4.56E-04
Heptachlor epoxide	1.41E+00	0.0662	9.34E-02
Hydrocarbons	5.98E+01		0.00E+00
MCPA	4.14E+01	1	4.14E+01
Merphos B	6.06E-03	NA	0.00E+00
Methyl azinphos	9.02E-01	0.2375	2.14E-01
Methyl parathion	1.62E-03	0.564	9.15E-04
Methylene Chloride	4.01E-02	1	4.01E-02
Mevinphos	4.00E-03	1	4.00E-03
PCB-1260	3.07E-01	0.0027	8.28E-04
Sulprofos (Bolstar)	1.85E-03	0.0058	1.07E-05
Toluene	3.82E-03	0.2375	9.07E-04
alpha-BHC	1.88E-02	0.0535	1.01E-03
delta-BHC	5.02E-02	0.0364	1.83E-03
gamma-BHC	2.35E-02	0.1142	2.68E-03

Table C.3-6
(Continued)

Chemical	Cs (mg/kg)	UF (veg.) (mg/kg plant / mg/kg soil)	Cp (mg/kg)
Subsurface Soil			
2,4,5-TP (Silvex)	5.03E-03	0.3312	1.67E-03
2,4-D	5.55E-02	0.2024	1.12E-02
4,4'-DDD	4.49E-03	0.0029	1.30E-05
4,4'-DDE	2.04E-03	0.0044	8.99E-06
4,4'-DDT	1.59E-02	0.0023	3.65E-05
Acetone	6.38E-01	1	6.38E-01
Aldrin	1.09E-02	0.0095	1.03E-04
Carbon disulfide	2.87E-02	0.4808	1.38E-02
Chloromethane	4.55E-02	1	4.55E-02
Chlorpyrifos (Dursban)	1.36E+00	0.0216	2.94E-02
Chrysene	1.56E+02	0.0049	7.67E-01
Diazinon	1.78E-02	0.0726	1.29E-03
Dicamba	7.87E-03	0.587	4.62E-03
Dichloroprop	1.13E-01	0.1869	2.12E-02
Dieldrin	5.98E-04	0.0368	2.20E-05
Endosulfan I	5.02E-04	0.0756	3.79E-05
Endosulfan II	8.75E-03	0.0689	6.03E-04
Endrin	4.43E-02	0.0049	2.17E-04
Endrin aldehyde	1.67E-02	0.0049	8.16E-05
Ethylbenzene	8.84E-03	0.1287	1.14E-03
Fenthion	4.21E-03	0.0368	1.55E-04
Fluoranthene	1.51E-01	0.0071	1.07E-03
Fluorene	4.93E+00	0.0318	1.57E-01
Heptachlor	4.29E-04	0.0244	1.05E-05
Heptachlor epoxide	2.25E-03	0.0662	1.49E-04
MCPA	8.51E+00	1	8.51E+00
Merphos B	2.58E-03	NA	0.00E+00
Methoxychlor	3.44E-02	0.0168	5.79E-04
Methyl azinphos	1.14E-01	0.2375	2.71E-02
Methyl ethyl ketone	2.04E-01	1	2.04E-01

Table C.3-6
(Continued)

Chemical	Cs (mg/kg)	UF (veg.) (mg/kg plant / mg/kg soil)	Cp (mg/kg)
Methylene chloride	2.23E-01	1	2.23E-01
Mevinphos	3.43E-03	1	3.43E-03
Naled	1.11E-02	0.0389	4.33E-04
PCB-1260	1.26E+00	0.0027	3.40E-03
Phenanthrene	8.71E+00	0.0255	1.96E-01
Phorate	1.30E-02	0.1748	2.27E-03
Pyrene	4.08E-01	0.0086	3.51E-03
Sulprofos (Bolstar)	2.33E-03	0.0058	1.35E-05
Toluene	4.54E-03	0.2375	1.08E-03
Xylene (total)	5.28E-02	0.1112	5.87E-03
alpha-BHC	1.44E-03	0.0535	7.68E-05
delta-BHC	1.68E-02	0.0364	6.12E-04
gamma-BHC	1.28E-03	0.1142	1.47E-04

Cp = concentration in plant from water or soil uptake (mg/kg)
Cw = concentration in groundwater (mg/kg)
Cs = concentration in soil (mg/kg)
UF = uptake factor (mg/kg plant divided by mg/kg water or soil)

Table C.3-7

Intake by Black-tailed Jackrabbits (As a Result of Plant Ingestion) And Ecological Risk Characterization
IRP Site 16, Holloman AFB, New Mexico

Chemical	B	Flf	Cdr (mg/kg)	IRdr (kg/day)	Flf	Csr (mg/kg)	IRsr (kg/day)	Fls	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOAEL (mg/kg-day)	Ecological Quotient
Surface Soil													
2,4,5-T	1.0	1.0	0.00e+00	0.0091	1.0	1.17e-02	0.0819	1.0	1.17e-02	0.004	3.66e-04	5.00e+01	7.33e-06
2,4,5-TP (Silvex)	1.0	1.0	0.00e+00	0.0091	1.0	5.02e-03	0.0819	1.0	1.52e-02	0.004	1.72e-04	1.08e+02	1.59e-06
4,4'-DDD	1.0	1.0	0.00e+00	0.0091	1.0	9.77e-05	0.0819	1.0	3.37e-02	0.004	5.19e-05	2.60e+01	2.00e-06
4,4'-DDT	1.0	1.0	0.00e+00	0.0091	1.0	9.63e-05	0.0819	1.0	4.19e-02	0.004	6.38e-05	5.00e-02	1.28e-03
Acetone	1.0	1.0	0.00e+00	0.0091	1.0	7.69e-01	0.0819	1.0	7.69e-01	0.004	2.40e-02	1.00e+02	2.40e-04
Aldrin	1.0	1.0	0.00e+00	0.0091	1.0	3.08e-04	0.0819	1.0	3.25e-02	0.004	5.64e-05	2.50e-02	2.26e-03
Chlorpyrifos (Dursban)	1.0	1.0	0.00e+00	0.0091	1.0	1.15e-02	0.0819	1.0	5.31e-01	0.004	1.11e-03	2.25e+01	4.95e-05
Coumaphos	1.0	1.0	0.00e+00	0.0091	1.0	0.00e+00	0.0819	1.0	2.34e-03	0.004	3.40e-06	1.30e+00	2.62e-06
Diazinon	1.0	1.0	0.00e+00	0.0091	1.0	5.66e-03	0.0819	1.0	7.79e-02	0.004	2.82e-04	1.00e-01	2.82e-03
Dichlorvos	1.0	1.0	0.00e+00	0.0091	1.0	4.85e-02	0.0819	1.0	4.85e-02	0.004	1.51e-03	9.30e+00	1.63e-04
Dieldrin	1.0	1.0	0.00e+00	0.0091	1.0	1.16e-03	0.0819	1.0	3.16e-02	0.004	8.06e-05	5.00e-03	1.61e-02
Dinoseb	1.0	1.0	0.00e+00	0.0091	1.0	3.85e-03	0.0819	1.0	6.13e-02	0.004	2.04e-04	9.70e+00	2.10e-05
Endrin	1.0	1.0	0.00e+00	0.0091	1.0	1.38e-04	0.0819	1.0	2.82e-02	0.004	4.52e-05	2.50e-02	1.81e-03
Endrin Aldehyde	1.0	1.0	0.00e+00	0.0091	1.0	5.45e-05	0.0819	1.0	1.11e-02	0.004	1.78e-05	2.50e-02	7.12e-04
Fenthion	1.0	1.0	0.00e+00	0.0091	1.0	4.56e-04	0.0819	1.0	1.24e-02	0.004	3.16e-05	3.17e+01	9.98e-07
Heptachlor epoxide	1.0	1.0	0.00e+00	0.0091	1.0	9.34e-02	0.0819	1.0	1.41e+00	0.004	4.83e-03	5.00e-01	9.66e-03
MCPA	1.0	1.0	0.00e+00	0.0091	1.0	4.14e+01	0.0819	1.0	4.14e+01	0.004	1.29e+00	1.17e+02	1.11e-02
Merphos B	1.0	1.0	0.00e+00	0.0091	1.0	0.00e+00	0.0819	1.0	6.06e-03	0.004	8.81e-06	2.12e+02	4.16e-08
Methyl azinphos	1.0	1.0	0.00e+00	0.0091	1.0	2.14e-01	0.0819	1.0	9.02e-01	0.004	7.69e-03	2.70e+00	2.85e-03
Methyl parathion	1.0	1.0	0.00e+00	0.0091	1.0	9.15e-04	0.0819	1.0	1.62e-03	0.004	2.96e-05	2.50e-02	1.18e-03
Methylene Chloride	1.0	1.0	0.00e+00	0.0091	1.0	4.01e-02	0.0819	1.0	4.01e-02	0.004	1.25e-03	5.85e+00	2.14e-04
Mevinphos	1.0	1.0	0.00e+00	0.0091	1.0	4.00e-03	0.0819	1.0	4.00e-03	0.004	1.25e-04	5.00e-01	2.50e-04
PCB-1260	1.0	1.0	0.00e+00	0.0091	1.0	8.28e-04	0.0819	1.0	3.07e-01	0.004	4.71e-04	5.00e-01	9.41e-04
Sulprofos (Bolstar)	1.0	1.0	0.00e+00	0.0091	1.0	1.07e-05	0.0819	1.0	1.85e-03	0.004	3.01e-06	5.00e+01	6.02e-08

Table C.3-7

(Continued)

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOAEL (mg/kg-day)	Ecological Quotient
Toluene	1.0	1.0	0.00e+00	0.0091	1.0	9.07e-04	0.0819	1.0	3.82e-03	0.004	3.26e-05	2.23e+02	1.46e-07
alpha-BHC	1.0	1.0	0.00e+00	0.0091	1.0	1.01e-03	0.0819	1.0	1.88e-02	0.004	5.73e-05	5.00e-01	1.15e-04
delta-BHC	1.0	1.0	0.00e+00	0.0091	1.0	1.83e-03	0.0819	1.0	5.02e-02	0.004	1.27e-04	5.00e+01	2.55e-06
gamma-BHC	1.0	1.0	0.00e+00	0.0091	1.0	2.68e-03	0.0819	1.0	2.35e-02	0.004	1.14e-04	3.30e-01	3.46e-04
Subsurface Soil Contaminants													
2,4,5-TP (Silvex)	1.0	1.0	1.67e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	5.51e-06	1.08e+02	5.10e-08
2,4-D	1.0	1.0	1.12e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.72e-05	6.25e+01	5.95e-07
4,4'-DDD	1.0	1.0	1.30e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.31e-08	2.60e+01	1.66e-09
4,4'-DDE	1.0	1.0	8.99e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.97e-08	5.20e+00	5.72e-09
4,4'-DDT	1.0	1.0	3.65e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.21e-07	5.00e-02	2.42e-06
Acetone	1.0	1.0	6.38e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.11e-03	1.00e+02	2.11e-05
Aldrin	1.0	1.0	1.03e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.42e-07	2.50e-02	1.37e-05
Carbon disulfide	1.0	1.0	1.38e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.57e-05	1.10e+01	4.16e-06
Chloromethane	1.0	1.0	4.55e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.51e-04	4.20e+02	3.58e-07
Chlorpyrifos (Dursban)	1.0	1.0	2.94e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	9.73e-05	2.25e+01	4.32e-06
Chrysene	1.0	1.0	7.67e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.54e-03	2.67e+01	9.50e-05
Diazinon	1.0	1.0	1.29e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.27e-06	1.00e-01	4.27e-05
Dicamba	1.0	1.0	4.62e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.53e-05	2.83e+02	5.40e-08
Dichloroprop	1.0	1.0	2.12e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.01e-05	1.24e+01	5.65e-06
Dieldrin	1.0	1.0	2.20e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.28e-08	5.00e-03	1.46e-05
Endosulfan I	1.0	1.0	3.79e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.26e-07	1.00e+00	1.26e-07
Endosulfan II	1.0	1.0	6.03e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.99e-06	1.00e+00	1.99e-06
Endrin	1.0	1.0	2.17e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.18e-07	2.50e-02	2.87e-05
Endrin aldehyde	1.0	1.0	8.16e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.70e-07	2.50e-02	1.08e-05
Ethylbenzene	1.0	1.0	1.14e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.76e-06	9.71e+01	3.88e-08
Fenthion	1.0	1.0	1.55e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	5.13e-07	3.17e+01	1.62e-08
Fluoranthene	1.0	1.0	1.07e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.54e-06	2.67e+01	1.33e-07

Table C.3-7

(Continued)

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOAEL (mg/kg-day)	Ecological Quotient
Fluorene	1.0	1.0	1.57e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	5.20e-04	1.25e+02	4.16e-06
Heptachlor	1.0	1.0	1.05e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.47e-08	1.50e-01	2.31e-07
Heptachlor epoxide	1.0	1.0	1.49e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.93e-07	2.50e-01	1.97e-06
MCPA	1.0	1.0	8.51e+00	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.82e-02	1.17e+02	2.41e-04
Merphos B	1.0	1.0	0.00e+00	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	0.00e+00	2.12e+02	0.00e+00
Methoxychlor	1.0	1.0	5.79e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.91e-06	5.10e+00	3.75e-07
Methyl azinphos	1.0	1.0	2.71e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	8.97e-05	2.70e+00	3.32e-05
Methyl ethyl ketone	1.0	1.0	2.04e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	6.76e-04	1.73e+02	3.91e-06
Methylene chloride	1.0	1.0	2.23e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.36e-04	5.00e-01	1.47e-03
Mevinphos	1.0	1.0	3.43e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.14e-05	5.00e-01	2.27e-05
Naled	1.0	1.0	4.33e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.43e-06	7.17e+01	2.00e-08
PCB-1260	1.0	1.0	3.40e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.12e-05	5.00e-01	2.25e-05
Phenanthrene	1.0	1.0	1.96e-01	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	6.49e-04	2.67e+01	2.43e-05
Phorate	1.0	1.0	2.27e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.52e-06	2.70e-01	2.78e-05
Pyrene	1.0	1.0	3.51e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.16e-05	7.50e+01	1.55e-07
Sulprofos (Bolstar)	1.0	1.0	1.35e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.47e-08	5.07e+01	8.81e-10
Toluene	1.0	1.0	1.08e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.57e-06	2.23e+02	1.60e-08
Xylene (total)	1.0	1.0	5.87e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.94e-05	1.79e+02	1.08e-07
alpha-BHC	1.0	1.0	7.68e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.54e-07	5.00e-01	5.08e-07
delta-BHC	1.0	1.0	6.12e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.02e-06	5.00e+01	4.05e-08
gamma-BHC	1.0	1.0	1.47e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.85e-07	3.30e-01	1.47e-06
Groundwater													
1,1,1-Trichloroethane	1.0	1.0	5.59e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.85e-05	1.50e+03	1.23e-08
1,1-Dichloroethane	1.0	1.0	5.91e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.96e-05	7.64e+02	2.56e-08
1,2-Dichlorobenzene	1.0	1.0	1.99e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	6.59e-09	8.33e+01	7.91e-11
1,3-Dichlorobenzene	1.0	1.0	5.50e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.82e-08	6.00e+02	3.03e-11
1,4-Dichlorobenzene	1.0	1.0	3.16e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.05e-07	6.00e+02	1.74e-10

Table C.3-7

(Continued)

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOAEL (mg/kg-day)	Ecological Quotient
4,4'-DDE	1.0	1.0	6.16e-08	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.04e-10	5.20e+00	3.92e-11
4,4'-DDT	1.0	1.0	3.45e-08	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.14e-10	5.00e-02	2.28e-09
Benzene	1.0	1.0	1.85e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	6.13e-07	1.00e+00	6.13e-07
Chlorobenzene	1.0	1.0	1.04e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.44e-05	6.00e+01	5.74e-07
Chloroform	1.0	1.0	2.80e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	9.26e-06	2.60e+00	3.56e-06
Dieldrin	1.0	1.0	2.13e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.06e-09	5.00e-03	1.41e-06
Endosulfan I	1.0	1.0	1.29e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	4.25e-09	1.00e+00	4.25e-09
Endosulfan sulfate	1.0	1.0	4.38e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.45e-08	1.00e+00	1.45e-08
Endrin	1.0	1.0	3.72e-07	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.23e-09	2.50e-02	4.93e-08
Endrin aldehyde	1.0	1.0	5.88e-07	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.95e-09	2.50e-02	7.78e-08
Ethylbenzene	1.0	1.0	9.91e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.28e-08	9.71e+01	3.38e-10
Heptachlor epoxide	1.0	1.0	4.50e-06	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.49e-08	2.50e-01	5.96e-08
Methyl parathion	1.0	1.0	1.80e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	5.97e-08	2.50e-02	2.39e-06
Methylene chloride	1.0	1.0	1.67e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	5.53e-05	5.85e+00	9.45e-06
Trichloroethene	1.0	1.0	6.55e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.17e-05	5.00e+01	4.34e-07
alpha-BHC	1.0	1.0	2.08e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	6.89e-08	5.00e-01	1.38e-07

Table C.3-7

(Continued)

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOAEL (mg/kg-day)	Ecological Quotient
gamma-BHC	1.0	1.0	3.91e-05	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.29e-07	3.30e-01	3.92e-07
												Total EQ	5.42e-02

IN = (B)[(FIf)(Cdr)(IRdr)+(Fif)(Csr)(IRsr)+(FIs)(Cs)(IRs)]/BW

where: IN = Intake of contaminants of potential concern (mg/kg-day)

B = Fraction of contaminant in feed which is bioavailable (unitless)

FIf = Fraction ingested of food (feed) from contaminanted source (unitless)

Cdr = Chemical concentration in deep-rooted plants (mg/kg)

Csr = Chemical concentration in shallow-rooted plants (mg/kg)

IRdr = Ingestion rate deep rooted plants (kg/day)

IRsr = Ingestion rate for shallow rooted plants (kg/day)

FIs = Fraction of soil ingested from contaminanted source (unitless)

Cs = Chemical concentration in soil (mg/kg)

IRs = Ingestion rate for soil (kg/day)

BW = 2.75 kg for Lepus californicus

C.4 SWMUs 129 and 178 (IRP Site 36)

IRP Site 36 includes SWMUs 129 and 178. For the purposes of this risk assessment, this SWMU group will be referred to as Site 36. The previous risk assessment conducted for the Unconventional Fuels Area Spill Site appeared in the *RI Report*, (Radian, 1992a), and was updated with new data collected during this investigation. This subsection contains the updated quantitative risk assessment results and the ecological assessment. Risk assessment methods are provided in the *RI Report* (Radian, 1992a). The methodology followed during the course of the risk assessment at this site is discussed in section C.1. Only information that pertains specifically to Site 36 is presented here.

C.4.1 Sources and Receiving Media for Site 36 COPCs

The former Unconventional Fuels Storage Area is located in the former Supply LOX area near former Buildings 1191 and 1192. The fuels handled in this area included unsymmetrical dimethylhydrazine (UDMH), JP-4, inhibited red fuming nitric acid (IRFNA), inhibited white fuming nitric acid (IWFNA), and aniline. Runoff pits received all spilled fuels and floor washings from the storage and mixing areas.

Groundwater at Site 36 occurs in a shallow unconfined aquifer beneath the site approximately 30 ft bgl in a clean to silty sand unit. Volatile compounds still entrained in the soil unsaturated zone will volatilize and eventually disperse into the air above the ground surface by simple diffusion.

Releases to Groundwater

Results of chemical analyses at Site 36 show that releases to the groundwater may have occurred and that contaminants are present in the groundwater beneath the site (approximately 28-30 ft deep).

Groundwater Migration

It was determined (*RI Report*; Radian, 1992a) that groundwater in this area of the Base flows northwest toward the Lost River drainage basin. However, because of the extremely slow movement of groundwater, it is not expected to adversely affect the drainage basin.

Uptake by Biota

Previously, it was assumed that human exposure could occur via ingestion of plants, meat, and dairy products. Pathways involving these media were assessed and risk was well below levels considered unacceptable.

Exposure Points and Exposure Routes

Potentially exposed populations at Site 36 consist of on-site recreational receptors, on-site workers (caretakers), and potential future construction workers on site. Human exposure to contaminants originating from here may occur in areas close to and downwind from the site via inhalation of the ambient air.

Previously, it was determined that there were no complete exposure pathways. Surface soil was not believed to be contaminated and a previous investigation (Bio. Eng., 1987) reported that there were no significant levels of waste fuels in the soil that were above those that occur naturally. Soil contaminants were detected in surface soil samples taken in the 1993 field season. Therefore, recreational, on-site worker, and potential future construction worker exposure scenarios were identified as being complete. Main Base residents are located too far away to be affected by site contaminants.

C.4.2 Exposure Pathways

Figure C.4-1 depicts potential pathways for Site 36 contaminants to move from the point of release to the point of human exposure. Pathways that are not complete have been crossed out; footnotes summarize the rationale for considering the pathway incomplete. Pathways that are complete but judged insignificant are indicated with a dashed line. Potentially significant pathways that exist at the site are indicated with a bold, solid line and include:

On-Site Receptors: Recreational Receptors, Current and Future On-Site Workers, and Potential Future Construction Workers

- Inhalation of volatile chemicals
  - volatilization to the air;
  - air dispersion; and
  - inhalation of volatile chemicals.
- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.
- Skin contact with/incidental ingestion of contaminants
  - on-site contaminants; and
  - skin contact with/incidental ingestion of contaminants.

These pathways are quantified in the risk assessment.

SWMUs 129 and 178 — Potential Pathways to Human Exposure

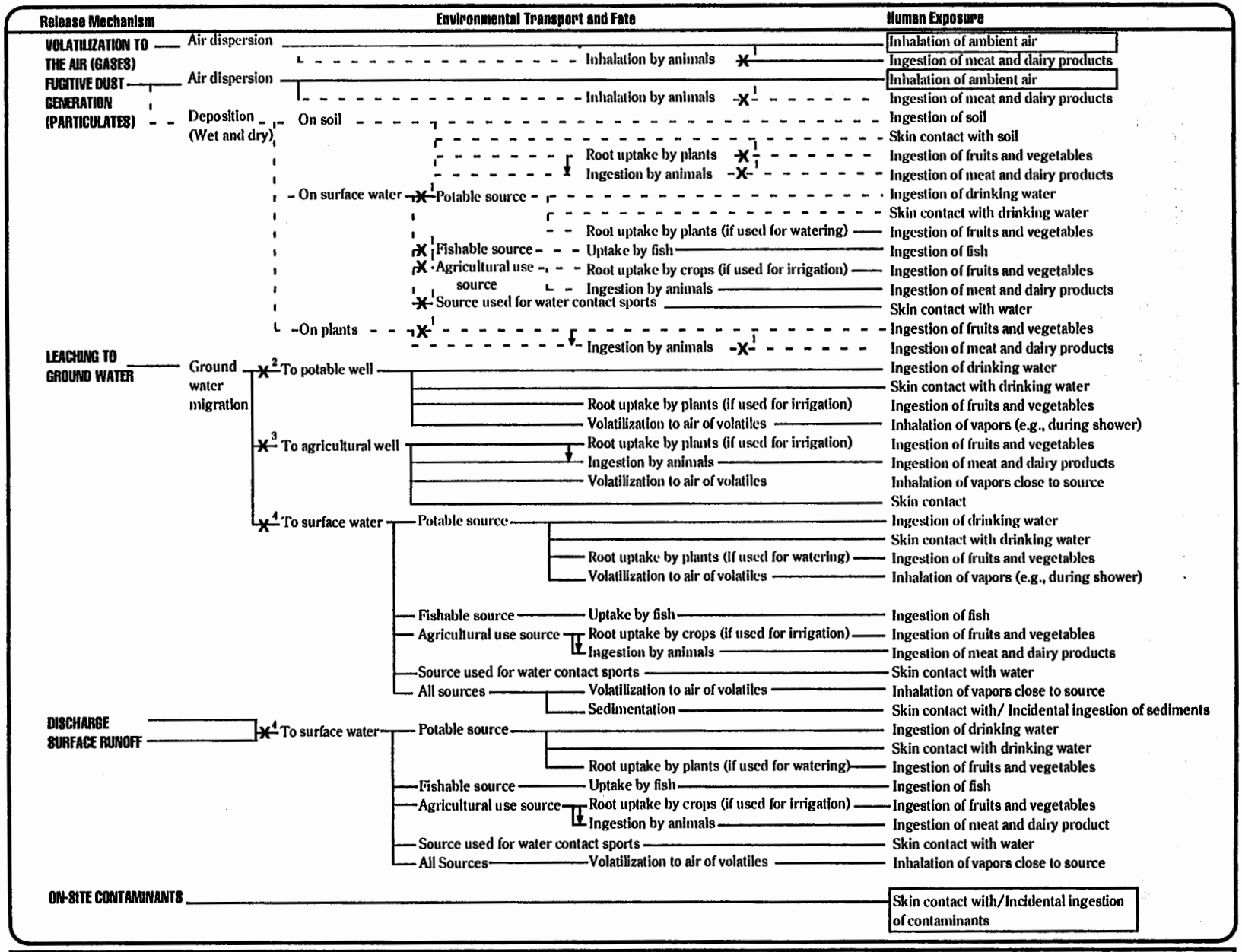


Figure C.4-1. SWMUs 129 and 178 Potential Pathways to Human Exposure

Summary of Exposure Pathways to be Quantified in this Assessment

Table C.4-1 identifies potentially exposed populations, exposure media, exposure points, and exposure routes for complete pathways for Site 36. Also noted in this table are the decisions to select pathways for quantitative evaluation and the justification for including each pathway in the risk assessment.

Exposure Scenarios

Current and future on-site workers, potential future construction workers, and current and future on-site recreational receptors represent the significant potentially exposed population. These individuals may be subject to subchronic (i.e., short-term) or chronic (i.e., long-term) exposure to site-related contaminants. Potential site releases would be low level and relatively continuous in nature; residents are not subject to subchronic (two-week to seven-year) exposures that are greater than chronic exposures.

Chronic exposure scenarios are based on predicted future lifetime exposures, whereas subchronic exposure scenarios are based on exposure that occurs within two to seven years. These scenarios assume exposure to contaminant levels predicted by modeled results at the nearest receptors. The two scenarios evaluated in the risk assessment, outlined in Table C.4-2, consist of the following:

- **On-Site Workers**
  - Current; and
  - Future.
- **Future On-Site Construction Workers**
  - Current; and
  - Future.

C.4.3 Toxicity Assessment

Table C3-1 in Attachment 3 presents toxicity values used in the risk assessment for the COPCs with potential for human exposure at Site 36. Toxicity profiles are included in Attachment 3 as well.

Table C.4-1
Potentially Complete Exposure Pathways at SWMUs 129 and 178

Exposure Route, Medium, and Exposure Point	Potentially Exposed Population	Pathway Selected For Evaluation	Reason for Selection or Exclusion
Inhalation of volatile chemicals in ambient air.	• Recreational receptors; • On-site workers; and • Potential future construction workers.	Yes	Emissions of volatile chemicals can result in inhalation exposure by people involved in recreational activities on the site. Current on-site workers and future potential construction workers may also inhale volatiles.
Inhalation of fugitive dust in ambient air.	• Recreational receptors; • On-site workers; and • Potential future construction workers.	Yes	Fugitive dust can disperse in the air resulting in inhalation exposure by people involved in recreational activities. On-site workers and future potential construction workers may also inhale fugitive dust.
Ingestion of contaminated soil.	• Recreational receptors; • On-site workers; and • Potential future construction workers.	Yes	People involved in recreational activities or working on-site inadvertently ingest contaminated soil.
Dermal contact with contaminated soil.	• Recreational receptors; • On-site workers; and • Potential future construction workers.	Yes	Dermal contact with contaminated soil could occur as the result of engaging in recreational activities or working on-site.
Deposition of fugitive dust; ingestion and dermal contact	Recreational receptors; • On-site workers; and • Potential future construction workers.	No	Due to the small size of the site, this pathway is considered insignificant.

Table C.4-2
Exposure Scenarios for SWMUs 129 and 178

Description	Scenario Selected for Evaluation	Brief Rationale
Chronic Exposure		
On-Base residential • Adult, average • Adult, reasonable maximum • Child, average • Child, reasonable maximum	No	Currently, the Base houses a residential community for military personnel and families; however, the housing facility is located too far from this site to be impacted by site contaminants.
Recreational • Child, average • Child, reasonable maximum	Yes	Adults and children may be exposed to site contaminants at the horse stables. Both the average and reasonable maximum cases are based on measured and modeled results.
Occupational • Adult, average • Adult, reasonable maximum	Yes	Caretakers are located on site 7 days a week and may be exposed to site contaminants. Both the average and reasonable maximum cases are based on measured and modeled results.
Subchronic Exposure		
Construction Worker • Adult, average • Adult, reasonable maximum	Yes	Potential future construction workers were assessed to represent a worst-case exposure scenario on-site. Both the average and reasonable maximum cases are based on measured and modeled results.

C.4.4 Risk Characterization

The following subsections describe the carcinogenic and noncarcinogenic risk characterization for the three exposure scenarios identified for Site 36.

- On-site worker exposure;
- On-site recreational exposure; and
- On-site potential future construction worker exposure.

C.4.4.1 Risk Characterization for the On-Site Worker Scenario

Current and future on-site workers may be exposed via inhalation of ambient air, dermal contact with soil, and incidental ingestion of soil. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in air.

The current and future average and reasonable maximum carcinogenic risks for on-site workers are 3E-07 and 4E-07, respectively. Since surface contamination has higher concentrations than subsurface contamination, future risk based on potential future construction activities in which deep soil is brought to the surface is not higher than present risk. There is no noncarcinogenic risk at this site, since the COPCs do not have noncarcinogenic toxicity values. The carcinogenic risk values for the on-site worker scenario are below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.4.4.2 Risk Characterization for the On-Site Recreational Scenario

Children and adults may be exposed to site contaminants via inhalation of volatiles and fugitive dust in the air, dermal contact with soil and incidental ingestion of soil. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in air.

The current and future average and reasonable maximum carcinogenic risks adults on-site are 2E-07 and 7E-07, respectively. Again, the risk is driven by contaminants in the surface soil, therefore, future risk based on soil concentrations following potential construction activities is not worse than the present risk. There is no noncarcinogenic risk at this site since the chemicals of potential concern do not have noncarcinogenic toxicity values. The carcinogenic risk values for adults engaging in recreational activities on-site are below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.4.4.3 Risk Characterization for the Potential Future Construction Worker Scenario

Potential future construction workers may be exposed via inhalation of ambient air, dermal contact with soil, and incidental ingestion of soil. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in the air.

The average and reasonable maximum carcinogenic risk for construction workers is 3E-10 and 5E-10, respectively. There is no noncarcinogenic risk at this site, since the COPCs do not have noncarcinogenic toxicity values. The carcinogenic risk values resulting from future construction worker exposure are both well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.4.5 Environmental Evaluation

The area surrounding the Base equestrian facility (formerly the Unconventional Fuels Storage area), as well as the area west of DeZonia Road (the former First Acid Storage area), is covered by abundant grasses, including plains bristlegrass (*Setaria macrostachya*), Indian ricegrass (*Dryzopsis hymenoides*), blue grama (*Boutelova gracilis*), and alkali sacaton (*Sporobolus airoides*). Flowering plants include pepperweed (*Lepidium montanum*) and silverleaf nightshade (*Solanum elaeagnifolium*). Saltbrush (*Atriplex canescens*) and rabbitbrush (*Chrysothamnus nauseosus*) are the dominant shrubs. Occasional cactus species include pricklypear cactus (*Opuntia engelmanii*) and Christmas cactus (*Opuntia leptocaulis*). An occasional allthorn (*Koeberlinia spinosa*) can be found. Also, scattered mesquite (*Prosopis* spp.) can be seen in the area. The area inside the equestrian facility fence is mowed and is sparsely vegetated.

C.4.5.1 Contaminants of Concern

All soil and groundwater contaminants detected at Site 36 were included as COPCs for the ecological assessment, with the exception of TRPH. COPCs are presented in Tables C.4-3 and C.4-4, respectively, for plant uptake and jackrabbit intake, below.

C.4.5.2 Risk Characterization

The total EQ for black-tailed jackrabbits at Site 36 is 0.33. On the basis of the EQ model for black-tailed jackrabbits, there is a low probability of any adverse environmental effects from the COPCs at the Site 36. Calculated plant uptake and EQs are presented in Tables C.4-3 and C.4-4, respectively.

Table C.4-3
Concentrations in Plants as a Result of Uptake from Contaminated Groundwater and Soil at Site 36

Chemical	Cw (mg/kg)	UF (veg.) (mg/kg plant / mg/kg water)	Cp (mg/kg)
Beryllium	0.004629	0.0022	1.02E-05
Nitrate-Nitrite as N	58.061088	NA	0.00E+00
Bromodichloromethane	0.005792	1.0000	5.79E-03
Trichloroethene	0.016708	0.2938	4.91E-03
Lead	0.008362	0.0099	8.28E-05
Selenium	0.016846	0.0055	9.27E-05
Chloroform	0.004119	0.6191	2.55E-03
Toluene	0.005574	0.2375	1.32E-03
Chemical	**Cs (mg/kg)**	**Uf (veg.) (mg/kg plant / mg/kg soil)**	**Cp (mg/kg)**
Aniline	47.5605104	1.0000	4.76E+01
Anthracene	0.0058	0.0228	1.32E-04
Benzene	0.0005165	0.5004	2.58E-04
Benzo(a)anthracene	0.0226	0.0049	1.11E-04
Benzo(a)pyrene	0.0216	0.0030	6.48E-05
Benzo(b)fluoranthene	0.0427	0.0014	5.98E-05
Benzo(g,h,i)perylene	0.0267	0.0006	1.60E-05
Benzo(k)fluoranthene	0.0439	0.0009	3.95E-05
Chrysene	0.0327	0.0049	1.60E-04
Dibutylpthalate	0.0272	0.0084	2.28E-04
Ethyl benzene	0.0008723	0.1287	1.12E-04
Fluoranthene	0.0369	0.0071	2.62E-04
Indeno(1,2,3-cd)pyrene	0.0159	0.0003	4.77E-06
Lead	145.988346	0.0099	1.45E+00
Phenanthrene	0.0202	0.0225	4.55E-04
Pyrene	0.0362	0.0086	3.11E-04
Toluene	0.0020864	0.2375	4.96E-04
Trichloroethene	0.0019312	0.2938	5.67E-04

Cp = concentration in plant-as a result of uptake from water or soil (mg/kg)
Cw = concentration in groundwater (mg/kg)
Cs = concentration in contaminated soil (mg/kg)
UF = uptake factor (mg/kg plant divided by mg/kg water or soil)

Table C.4-4
Intake by Black-tailed Jackrabbits as a Result of Plant Ingestion and Ecological Risk Characterization at Site 36

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIf	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOEL (mg/kg-day	Ecological Quotient
Soil Contaminants													
Aniline	1.0	1.0	4.76E+01	0.0091	1.0	4.76E+01	0.0819	1.0	4.76E+01	0.004	1.64E+00	4.16E+01	3.95E-02
Anthracene	1.0	1.0	1.32E-04	0.0091	1.0	1.32E-04	0.0819	1.0	5.80E-03	0.004	1.28E-05	2.67E+01	4.80E-07
Benzene	1.0	1.0	2.58E-04	0.0091	1.0	2.58E-04	0.0819	1.0	5.17E-04	0.004	9.30E-06	1.00E+00	9.30E-06
Benzo(a)anthracene	1.0	1.0	1.11E-04	0.0091	1.0	1.11E-04	0.0819	1.0	2.26E-02	0.004	3.65E-05	2.67E+01	1.37E-06
Benzo(a)pyrene	1.0	1.0	6.48E-05	0.0091	1.0	6.48E-05	0.0819	1.0	2.16E-02	0.004	3.36E-05	2.67E+01	1.26E-06
Benzo(b)fluoranthene	1.0	1.0	5.98E-05	0.0091	1.0	5.98E-05	0.0819	1.0	4.27E-02	0.004	6.41E-05	2.67E+01	2.40E-06
Benzo(g,h,i)perylene	1.0	1.0	1.60E-05	0.0091	1.0	1.60E-05	0.0819	1.0	2.67E-02	0.004	3.94E-05	2.67E+01	1.47E-06
Benzo(k)fluoranthene	1.0	1.0	3.95E-05	0.0091	1.0	3.95E-05	0.0819	1.0	4.39E-02	0.004	6.52E-05	2.67E+01	2.44E-06
Chrysene	1.0	1.0	1.60E-04	0.0091	1.0	1.60E-04	0.0819	1.0	3.27E-02	0.004	5.29E-05	2.67E+01	1.98E-06
Dibutylphthalate	1.0	1.0	2.28E-04	0.0091	1.0	2.28E-04	0.0819	1.0	2.72E-02	0.004	4.71E-05	1.33E+03	3.54E-08
Ethyl benzene	1.0	1.0	1.12E-04	0.0091	1.0	1.12E-04	0.0819	1.0	8.72E-04	0.004	4.98E-06	9.71E+01	5.13E-08
Fluoranthene	1.0	1.0	2.62E-04	0.0091	1.0	2.62E-04	0.0819	1.0	3.69E-02	0.004	6.23E-05	2.67E+01	2.33E-06
Indeno(1,2,3-cd)pyrene	1.0	1.0	4.77E-06	0.0091	1.0	4.77E-06	0.0819	1.0	1.59E-02	0.004	2.33E-05	2.67E+01	8.72E-07
Lead	1.0	1.0	1.45E+00	0.0091	1.0	1.45E+00	0.0819	1.0	1.46E+02	0.004	2.60E-01	9.00E-01	2.89E-01
Phenanthrene	1.0	1.0	4.55E-04	0.0091	1.0	4.55E-04	0.0819	1.0	2.02E-02	0.004	4.44E-05	2.67E+01	1.66E-06
Pyrene	1.0	1.0	3.11E-04	0.0091	1.0	3.11E-04	0.0819	1.0	3.62E-02	0.004	6.30E-05	7.50E+01	8.39E-07
Toluene	1.0	1.0	4.96E-04	0.0091	1.0	4.96E-04	0.0819	1.0	2.09E-03	0.004	1.94E-05	2.23E+02	8.71E-08
Trichloroethene	1.0	1.0	5.67E-04	0.0091	1.0	5.67E-04	0.0819	1.0	1.93E-03	0.004	2.16E-05	5.00E+01	4.32E-07

Table C.4-4
(Continued)

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day	IN (mg/kg-day)	NOEL (mg/kg-day)	Ecological Quotient
Groundwater Contaminants													
Beryllium	1.0	1.0	1.02E-05	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	3.37E-08	6.20E-01	5.44E-08
Bromodichloromethane	1.0	1.0	0.00E+00	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	0.00E+00	4.10E+01	0.00E+00
Chloroform	1.0	1.0	5.79E-03	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	1.92E-05	2.60E+00	7.37E-06
Lead	1.0	1.0	4.91E-03	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	1.62E-05	9.00E-01	1.80E-05
Nitrate-Nitrite as N	1.0	1.0	8.28E-05	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	2.74E-07	7.60E+00	3.60E-08
Selenium	1.0	1.0	9.27E-05	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	3.07E-07	3.16E+01	9.70E-09
Toluene	1.0	1.0	2.55E-03	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	8.44E-06	2.23E+02	3.78E-08
Trichloroethene	1.0	1.0	1.32E-03	0.0091	1.0	0.00E+00	0.0819	1.0	0.00E+00	0.004	4.38E-06	5.00E+01	8.76E-08
												Total EQ	0.33

IN = (B)[(FIf)(Cdr)(IRdr)+(FIf)(Csr)(IRsr)+(FIs)(Cs)(IRs)]/BW

where: IN = Intake of contaminants of potential concern (mg/kg-day).
B = Fraction of contaminant in feed which is bioavailable (unitless).
FIf = Fraction ingested of food (feed) from contaminated source (unitless).
Cdr = Chemical concentration in deep-rooted plants (mg/kg).
Csr = Chemical concentration in shallow-rooted plants (mg/kg).
IRdr = Ingestion rate for deep rooted plants (kg/day).
IRsr = Ingestion rate for shallow rooted plants (kg/day).
FIs = Fraction of soil ingested from contaminated source (unitless).
Cs = Chemical concentration in soil (mg/kg).
IRs = Ingestion rate for soil (kg/day).
BW = 2.75 kg for Lepus californicus.

C.5 SWMUs 165, 177, 179, and 181 (IRP Site 39)

IRP Site 39 includes SWMUs 165, 177, 179, and 181 (Building 1176 area). For the purposes of this risk assessment, this SWMU group will be referred to as Site 39.

Environmental Evaluation

The site is located adjacent to the Lost River Basin. Vegetation on the slopes leading down to the basin is sparse, dominated by saltbrush (*Atriplex canescens*) and alkali sacaton (*Sporobolus airoides*). Pickleweed (*Allenrolfea occidentalis*) becomes dominant as the salt flats bordering the basin are approached. Other grasses include little bluestem (*Andropogon scoparius*), plains bristlegrass (*Setaria macrostachya*), Indian ricegrass (*Dryzopsis hymenoides*), and blue grama (*Boutelova gracilis*). Areas immediately adjacent to drainages support dense thickets of saltcedar (*Tamarix* spp.).

C.5.1 Contaminants of Potential Concern

In the previous risk assessment (Radian, 1992), modeled intake of the COPCs by terrestrial receptors indicated a potential for adverse effects from lead and cadmium in the soil. Samples of forage plants were taken to verify actual uptake of these contaminants. In forage plants, measured concentrations of cadmium were 62% of modeled concentrations; lead concentrations were 66% of modeled concentrations. Jackrabbit intake was not verifiable with the type of samples collected; instead, tissue concentrations were compared directly with published values of mammal tissue concentrations known to cause adverse effects or to be at background levels. A detailed discussion of the biota sampling is presented in section 6.3 of this report.

In the previous risk assessment (Radian, 1992b), modeled concentrations in the surface water of the Lost River predicted concentrations of beryllium, lead, and zinc to be higher than the default (hardness estimated at 100 mg/L) ambient water quality criteria. Because of the high uncertainty associated with the model and unknown hardness, these parameters were measured during the present investigation. Surface water from the Lost River Basin was analyzed for beryllium, lead, and cadmium; hardness was measured. See section 6.3 for a detailed discussion of sampling.

C.5.2 Exposure Characterization

Exposure to COPCs at Site 39 is possible by uptake by plants from the soil and groundwater, ingestion by animals of plants growing on contaminated soils, ingestion of contaminated soils and surface water, dermal contact with contaminated soils and surface water, and inhalation of volatiles

released to the air from contaminated soil or groundwater. The primary routes of exposure for black-tailed jackrabbits are ingestion of contaminants taken up by plants and incidental ingestion of soil while foraging and from grooming activities. These are the only pathways quantified. Although the other routes of exposure contribute to the risk, this contribution is expected to be minimal compared with the risk from ingestion.

C.5.3 Risk Characterization

Lead is toxic to plants because it mimics many aspects of the metabolic behavior of calcium, and inhibits many enzyme systems. Toxic effects of lead can reduce plant growth, but this is generally not seen in the field. Lead taken up by plants is accumulated in the cell walls, and this may protect the plant from toxic effects (Mengel and Kirkby, 1978). In most soils, it appears that soil-lead concentrations of at least 1000 mg/kg must be present before any lead effects on apples or grapes are observed. Yield differences in pot experiments with oats and red clover were observed at lead concentrations above 50 ppm. Beans grown in soils containing 820 mg/kg showed poor growth and spotty discoloration. Concentrations of lead of 125 mg/kg and higher reduced corn growth (Demayo et al., 1982).

Lead in plants from uncontaminated areas are reported at concentrations ranging from 1.0 to 41.0 mg/kg dry weight, whereas lead concentrations in contaminated areas are reported to vary from 9.0 to 1840 mg/kg dry weight (Eisler, 1988). The average concentration of plants taken at Site 39 was 4.87 mg/kg dry weight. Lead concentrations in background samples from the site were 8.57 mg/kg (grass) and 8.72 mg/kg (saltbrush). Although the reported soil concentration of lead is high (449 mg/kg), concentrations of lead in plants at the site appear to be within background levels, and phytotoxicity is not expected.

Normal cadmium levels in plant material are in the range of 0.1Å1.0 mg/kg (Mengel and Kirkby, 1978). The average concentration of cadmium in plants at the site was 0.71 mg/kg dry weight. Cadmium was found to severely depress alfalfa growth at soil concentrations 250 ppm, whereas little effect was seen at 125 ppm (Taylor and Allinson, 1981). Hansen and Chaney (1984) report that cadmium phytotoxicity is usually limited by zinc phytotoxicity. Cadmium soil concentration at this site was 9.9 mg/kg. By using alfalfa as an indicator species, cadmium phytotoxicity is not expected to be a problem at the site.

Comparison of lead concentrations in mammalian tissues from a variety of contaminated sites and background areas reveal that lead tissue concentrations from a black-tailed jackrabbit collected at Site 39 are within background ranges. Lead was not detected in liver and kidney samples of a black-tailed jackrabbit collected at the site. Lead was detected in bone (0.369 mg/kg fresh weight) and blood (0.057 mg/kg) samples of the same animal. Concentrations of lead in mammalian background bone and blood samples ranged from 3 to 21 mg/kg and from 0.01 to 0.3 mg/kg, respectively. Comparisons of lead tissue concentrations are presented in Tables C.5-1, C.5-2, and C.5-3. It does not appear that soil concentrations or distribution of lead at Site 39 will have any adverse ecological effects.

Cadmium tends to concentrate in the viscera of vertebrates, particularly the kidneys and liver. Concentrations are higher in older organisms than at younger stages; cadmium is especially pronounced in carnivores and marine vertebrates. Higher concentrations reported for individuals of a single species are almost always associated with point source locations. Physiologically bound cadmium (e.g., in feed as opposed to soil or water) appears to be more effective in producing metabolic iron irregularities (i.e., depressed hematocrit and hemoglobin values). It appears that cadmium residues in vertebrate kidney or liver tissues that exceed 10.0 mg/kg fresh weight should be viewed as evidence of cadmium contamination. Elevated levels of 13.0Å15.0 mg/kg probably represent a significant hazard to animals of higher trophic levels, and residues of 200 ppm fresh weight kidney should be considered life threatening (Eisler, 1985).

Cadmium concentrations in a black-tailed jackrabbit collected at Site 39 were 0.60 mg/kg fresh weight (2.72 mg/kg dry weight) in the kidney and 0.095 mg/kg fresh weight (0.594 mg/kg dry weight) in the liver. These concentrations are well below levels that indicate cadmium contamination, and should not contribute to any adverse ecological effects. Because most of the cadmium ingested is expected to be from soil (i.e., not physiologically bound), it can be expected that cadmium is even less likely to produce adverse ecological effects.

The previous ecological assessment (Radian, 1992a) indicated an EQ for aquatic organisms of 7.1, based on modeled concentrations of beryllium, lead, and zinc (no other contaminants contributed significant risk). Hardness of the water in the area was unknown, and default values of 100 mg/kg were used. The EQ was recalculated using measured concentrations of surface water collected from two locations (one upgradient of Site 39, one downgradient). Beryllium was not detected in either location. Lead and zinc were detected in both locations, with higher concentrations

Table C.5-1
Concentrations of Lead in Mammalian Kidney Tissue

Background Concentrations[a] (mg/kg dry weight)	Concentrations at Contaminated Sites[a] (mg/kg dry weight)	Concentrations at Holloman AFB (mg/kg dry weight)	Species	Study Type
		ND (<0.88)	Black-tailed jackrabbit (*Lepus californicus*)	RFI data from Site 39
5 to 8	39-46		Field mouse (*Apodemus sylvaticus*)	Abandoned mine study
4	12		Short-tailed shrew (*Blarina brevicauda*)	Traffic study
0.5-1	1-3		White-tailed deer (*Odocoileus virginianus*)	Zinc smelter study
3	9		Deer mice (*Peromyscus maniculatus*)	Traffic study
3 (fresh weight)	9 (fresh weight)		Commensal rat (*Rattus norvegicus*)	Urban-Rural study Houston, Texas
9	46		Common shrew (*Sorex araneus*)	Traffic study

[a] Data from Eisler, 1988.

Table C.5-2
Concentrations of Lead in Mammalian Liver Tissue

Background Concentrations[a] (mg/kg dry weight)	Concentrations at Contaminated Sites[a] (mg/kg dry weight)	Concentrations at Holloman AFB (mg/kg dry weight)	Species	Study Type
		ND (<1.2)	Black-tailed jackrabbit (*Lepus californicus*)	RFI data from Site 39
5 to 8	12-13		Field mouse (*Apodemus sylvaticus*)	Abandoned mine study
1	5		Short-tailed shrew (*Blarina brevicauda*)	Traffic study
<0.4	<2		White-tailed deer (*Odocoileus virginianus*)	Zinc smelter study
1	3		Deer mice (*Peromyscus maniculatus*)	Traffic study
<1	17		Common shrew (*Sorex araneus*)	Traffic study

[a] Data from Eisler, 1988.

Table C.5-3
Concentrations of Lead in Mammalian Bone and Blood

Background Concentrations[a] (mg/kg dry weight)	Concentrations at Contaminated Sites[a] (mg/kg dry weight)	Concentrations at Holloman AFB (mg/kg)	Species	Study Type
Bone				
		0.369 (fresh weight)	Black-tailed jackrabbit (*Lepus californicus*)	RFI data from Site 39
11 to 21	189 to 352		Field mouse (*Apodemus sylvaticus*)	Abandoned mine study
12	67		Short-tailed shrew (*Blarina brevicauda*)	Traffic study
3 to 11	4 to 17		White-tailed deer (*Odocoileus virginianus*)	Zinc smelter study
5	52		Deer mice (*Peromyscus maniculatus*)	Traffic study
8 (fresh weight)	125 (fresh weight)		Commensal rat (*Rattus norvegicus*)	Urban-Rural study Houston, Texas
Blood				
		0.057 (fresh weight)	Black-tailed jackrabbit (*Lepus californicus*)	RFI data from Site 39
0.01 to 0.05 (fresh weight)	0.06 to 0.15 (fresh weight)		Dog (*Canis familiaris*)	Healthy and Pb poisoned specimens
0.1 to 0.3 (fresh weight)	0.4 to 0.5 (fresh weight)		Horse (*Equus caballus*)	Healthy and Pb poisoned specimens

[a] Data from Eisler, 1988.

in the downgradient location. The downgradient location is in a playa lake where significant concentration of dissolved contaminants may be expected because of high evaporation rates. Hardness of the surface water was also measured. EQs for both locations were calculated for total concentrations and dissolved concentrations of lead and zinc. The highest calculated EQ was 0.004, indicating little potential for adverse effects to aquatic organisms from lead and zinc. Calculated aquatic EQs are presented in Table C.5-4. Appendix K, Section K.2 of the *RI Report* (Radian, 1992a) presents the methodology for calculation of the EQs.

C.5.4 Uncertainties and Conclusions

Some species of terrestrial animals may be more sensitive to lead and cadmium than the values reported above indicate. Concentrations in jackrabbit tissue may not be representative of other species, particularly those with small home ranges. However, because of the small area of the contaminated site, any potential adverse effects should not affect populations of wildlife. It is possible that individual animals may be affected.

On the basis of the EQs for aquatic organisms, no adverse effects on aquatic organisms are expected from contamination present at Site 39. Some aquatic organisms may be more sensitive to zinc and lead, but the water quality criteria employed are thought to be protective of all aquatic life.

Table C.5-4
Aquatic Ecological Quotient for Site 39

Chemical	Modeled Conc.[a] µg/L	Dissolved Concentration		Total Concentration		Chronic AWQC[b]		Ecological Quotient		Ecological Quotient	
		Upstream µg/L	Downstream µg/L	Upstream µg/L	Downstream µg/L	Upstream µg/L	Downstream µg/L	Upstream (Total)[c]	Downstream (Total)[c]	Upstream (Total)[c]	Downstream (Total)[c]
Beryllium	2.9	ND	ND	ND	ND	5.3	5.3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	19	5.44	15	6.26	19	3518	7035	1.78E-03	2.70E-03	1.55E-03	2.13E-03
Zinc[d]	71	13.8	24.5	0.52	9.18	11249	17842	4.62E-05	5.15E-04	1.23E-03	1.37E-03
				mg/L	mg/L						
Hardness				24,600	42,400						
							Total EQ:	1.83E-03	3.22E-03	2.77E-03	3.51E-03

[a] Modeled concentrations from previous ecological assessment (Radian, 1992c).
[b] Chronic AWCQs for lead andzinc are calculated based on hardness.
[c] EQ was calculated for total and dissolved metal concentrations.
[d] Dissolved sample results for zinc may represent some zinc leaching from the filters used, or filtering may have removed interferences which impacted the zinc analysis for total metals. All analytical QA/QC parameters were in control.

C.6 SWMU 164

A risk assessment has not previously been conducted for SWMU 164. This section includes a quantitative assessment for this site. The risk assessment methods are provided in the *RI Report* (Radian, 1992a). The same methods were used in this update; however, since risk assessment methods require a lengthy discussion, as well as multiple tables, the discussion is not repeated here. Only information that pertains specifically to SWMU 164 is presented here.

C.6.1 Sources and Receiving Media for SWMU 164 COPCs

SWMU 164, a surface impoundment, is located southeast of Building 1080. It has been active since 1956. It is used to collect runoff from the asphalt-covered drone aircraft ramp area near Building 1080. The pond contains metals and is unlined. A 10,000-gal. fuel spill was reported to have occurred north of the site and may have run into the pond.

Groundwater beneath the site has not been analyzed. Soil samples collected during this investigation show fuel constituents in the surface and subsurface soils. The original release sources (drainage of wastes) contributed contaminants to the soil and groundwater via site leaching. For the purposes of this risk assessment, the source of contamination is represented by analytical measurements of identified chemicals of potential concern in the soil.

Releases to Groundwater

Releases of contaminants from soil to the groundwater may have already occurred; however, groundwater has not been analyzed at this site.

Releases to Surface Water

There is no known direct discharge of contaminants from SWMU 164 to a surface water source. Surface runoff is minimized because of the level topography of the site and low annual rainfall.

Groundwater Migration

It was determined (*RI Report*; Radian, 1992a) that groundwater in this area of the Base flows south-southwest toward Dillard Draw.

Uptake by Biota

For this risk assessment, terrestrial plants and animals are potentially exposed to contaminants originating from SWMU 164. Agricultural products are not raised on or near the site, and are not included in this risk assessment.

Exposure Points and Exposure Routes

Potentially exposed populations at SWMU 164 consist of on-Base residents and potential future construction workers on site. There are currently no on-site workers; however, workers are located near the site and were assessed for inhalation exposure.

C.6.2 Exposure Pathways

Figure C.6-1 depicts potential pathways for SWMU 164 contaminants to move from the point of release to the point of human exposure. Pathways that are not complete have been crossed out; footnotes summarize the rationale for considering the pathway incomplete. Pathways that are complete but judged insignificant are indicated with a dashed line. Potentially significant pathways that exist at the site are indicated with a bold, solid line and include:

Workers Located Near the Site, Present and Future

- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.

Potential Future Construction Workers Located On Site

- Inhalation of fugitive dust
  - fugitive dust generation;
  - air dispersion; and
  - inhalation of fugitive dust.
- Skin contact with/incidental ingestion of contaminants
  - on-site contaminants; and
  - skin contact with/incidental ingestion of contaminants.

These pathways are quantified in the risk assessment.

Summary of Exposure Pathways to be Quantified in This Assessment

Table C.6-1 identifies potentially exposed populations, exposure media, exposure points, and exposure routes for complete pathways. Also noted in this table are the decisions to select pathways for quantitative evaluation and the justification for including or excluding each pathway in the risk assessment.

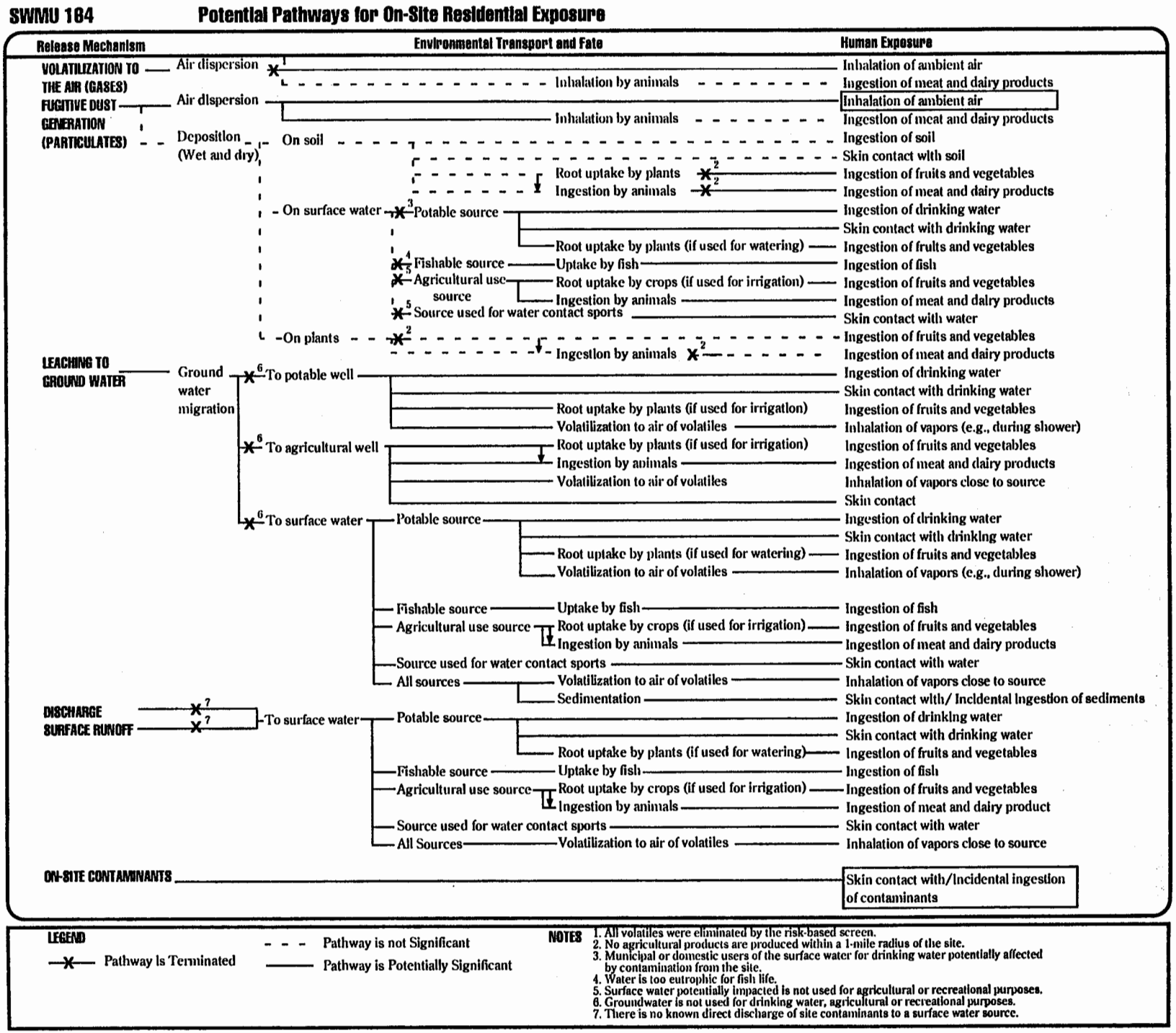


Figure C.6-1. SWMU 164 Potential Future Pathways to On-site Residential Exposure

Table C.6-1
Potentially Complete Exposure Pathways at SWMU 164

Exposure Route, Medium, and Exposure Point	Potentially Exposed Population	Pathway Selected For Evaluation	Reason for Selection or Exclusion
Inhalation of fugitive dust in ambient air.	• Workers located at Building 1080; • Downwind,;and • Potential future construction workers	Yes	Fugitive dust can disperse in the air resulting in inhalation exposure by workers located near the site and future potential construction workers.
Ingestion of contaminated soil.	• Potential future construction workers	Yes	Incidental ingestion of contaminated soil could occur as the result of working on-site.
Dermal contact with contaminated soil.	• Potential future construction workers	Yes	Dermal contact with contaminated soil could occur as the result of working on-site.
Deposition of fugitive dust on soils ingestion or dermal contact	• Potential future construction workers	No	Dermal contact or ingestion of depositional dust considered insignificant; ingestion and dermal contact of on-site soil are addressed in the risk assessment.

Exposure Scenarios

On-site potential future construction workers and present and future workers located near the site represent the significant potentially exposed population. Because of the size of the unit-approximately 2 acres-workers at, downwind from, and near to SWMU 164 were assessed for inhalation exposure as well. These individuals may be subject to subchronic (i.e., short-term) or chronic (i.e., long-term) exposure to site-related contaminants. Potential site releases would be low level and relatively continuous in nature; receptors are not subject to subchronic (two-week to seven-year) exposures that are greater than chronic exposures.

Chronic exposure scenarios are based on predicted future lifetime exposures, whereas subchronic exposure scenarios are based on exposure that occurs within two to seven years. These scenarios assume exposure to contaminant levels predicted by modeled results at the nearest receptors. The two scenarios evaluated in the risk assessment, outlined in Table C.6-2, consist of the following:

- **On-Site Construction Workers Scenario**
  - Future.
- **Workers Located Near the Site Scenario**
  - Current; and
  - Future.

Table C3-1 in Attachment 3 presents toxicity values used in the risk assessment for the COPCs with potential for human exposure at SWMU 164. Toxicity profiles are included in Attachment 3 as well.

C.6.4 Risk Characterization

The following subsections describe the carcinogenic and noncarcinogenic risk characterization for the three exposure scenarios identified for SWMU 164.

- On-site potential future construction worker exposure; and
- Off-site present and future worker exposure for workers at and downwind from Building 1080.

Table C.6-2
Exposure Scenarios—SWMU 164

Description	Scenario Selected for Evaluation	Brief Rationale
Chronic Exposure		
Occupational • Adult, average • Adult, reasonable maximum	Yes	Workers located near the site may be exposed to site contaminants. Both the average and reasonable maximum cases are based on measured and modeled results.
Residential	No	**The site is located near the end of an active runway. It is not a residential area, and will not be in the future.**
Subchronic Exposure		
Construction Worker • Adult, average • Adult, reasonable maximum	Yes	Future potential construction workers were assessed to represent a worst-case exposure scenario on-site. Both the average and reasonable maximum cases are based on measured and modeled results.

C.6.4.1 Risk Characterization for the Potential Future Construction Worker Scenario

Potential future construction workers may be exposed via inhalation of ambient air, dermal contact with soil, and incidental ingestion of soil. For this scenario, exposure concentrations were based on measured concentrations in the soil and modeled concentrations in the air.

The average and reasonable maximum carcinogenic risks for construction workers are 1E-08 and 3E-08, respectively. The average and reasonable hazard indices are 0.1 and 0.15, respectively. The carcinogenic and noncarcinogenic risk values resulting from future construction worker exposure are both well below levels considered unacceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.6.4.2 Risk Characterization for the Off-Site Worker Exposure Scenario

Current and future workers located near the site may be exposed via inhalation of ambient air. For this scenario, exposure concentrations were based on measured concentrations in the soil and and modeled concentrations in the air.

The current average and reasonable maximum carcinogenic risks for workers located nearest the site (at Building 1080) are 4E-07 and 8E-07, respectively. Future average and reasonable maximum carcinogenic risks are 1E-05 and 2E-05, respectively. The hazard index could not be calculated for the current scenario since none of the COPCs present in this scenario have noncarcinogenic toxicity values. The future hazard indices are 0.5 and 0.8, assuming that construction activities result in subsurface soil being brought to the surface. The carcinogenic and noncarcinogenic risk values for the worker scenario are with the range considered acceptable. Therefore, adverse health effects are unlikely. Attachment 4 contains the chemical- and pathway-specific risk estimates by exposure scenario.

C.6.5 Environmental Evaluation

No previous risk assessment was conducted at SWMU 164. Uptake by plants and intake by jackrabbits were calculated in the present risk assessment.

Contaminants of Concern

All soil and contaminants detected at SWMU 164 were included as COPCs for the ecological assessment, with the exception of total hydrocarbons. Ninety-fifth percentile UCL concentrations (see Attachment 1) were used in the ecological risk assessment.

Exposure Characterization

Exposure to COPCs at SWMU 164 is possible through ingestion of contaminated soils, dermal contact with contaminated soils, and inhalation of volatiles released to the air. Ingestion of surface water is possible after rainfall sufficient to cause pooling of water in the Building 1080 pond. The primary routes of exposure for black-tailed jackrabbits are ingestion of contaminants taken up by plants and incidental ingestion of soil while foraging and from grooming activities. These are the only pathways quantified. Although other routes of exposure contribute to the risk, this contribution is expected to be minimal compared with the risk from ingestion.

Risk Characterization

The EQ for black-tailed jackrabbits at SWMU 164 is 0.06. On the basis of the EQ model for black-tailed jackrabbits, there is a low probability of any adverse environmental effects from the COPCs at SWMU 164.

Table C.6-3
Concentrations in Plants as a Result of Uptake from Contaminated Groundwater and Soil, SWMU 164

Chemical	Cw (mg/kg)	UF (veg.) (mg/kg plant / mg/kg water)	Cp (mg/kg)
Groundwater			
No groundwater data available			
Chemical	**Cs (mg/kg)**	**UF (veg.) (mg/kg plant / mg/kg soil**	**Cp (mg/kg)**
Surface Soil			
Arsenic	2.21706	0.0088	1.95E-02
Cadmium	0.10447	0.121	1.26E-02
Chromium	6.24775	0.0017	1.06E-02
Lead	10.2041	0.0099	1.01E-01
Selenium	2.52203	0.0055	1.39E-02
1,1-Dichloroethene	0.62088	1	6.21E-01
Benzene	0.28471	0.5004	1.42E-01
Ethylbenzene	50.2141	0.1287	6.46E+00
Toluene	37.8118	0.2375	8.98E+00
Xylene (total)	97.2928	0.1112	1.08E+01
Subsurface Soil			
Arsenic	1.0665	0.0088	9.39E-03
Barium	66.5019	0.033	2.19E+00
Cadmium	0.23224	0.121	2.81E-02
Chromium	13.1338	0.0017	2.23E-02
Lead	6.40117	0.0099	6.34E-02
Selenium	2.16045	0.0055	1.19E-02
Toluene	0.00131	0.2375	3.12E-04

Cp = concentration in plant from water or soil uptake (mg/kg).
Cw = concentration in groundwater (mg/kg).
Cs = concentration in soil (mg/kg).
UF = uptake factor (mg/kg plant divided by mg/kg water or soil).

Table C.6-4
Intake by Black-tailed Jackrabits (As a Result of Plant Ingestion) and Ecological Risk Characterization
SWMU 164 (Bldg. 1080 Pond), Holloman AFB, New Mexico

Chemical	B	FIf	Cdr (mg/kg)	IRdr (kg/day)	FIf	Csr (mg/kg)	IRsr (kg/day)	FIs	Cs (mg/kg)	IRs (kg/day)	IN (mg/kg-day)	NOEL (mg/kg-day)	Ecological Quotient
Subsurface Soil Contaminants													
Arsenic	1.0	1.0	9.39e-03	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.11e-05	0.7	4.44e-05
Barium	1.0	1.0	2.19e+00	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.26e-03	0.7	1.04e-02
Cadmium	1.0	1.0	2.81e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	9.30e-05	0.03	3.10e-03
Chromium	1.0	1.0	2.23e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	7.39e-05	2.4	3.08e-05
Lead	1.0	1.0	6.34e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	2.10e-04	0.9	2.33e-04
Selenium	1.0	1.0	1.19e-02	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	3.93e-05	31.6	1.24e-06
Toluene	1.0	1.0	3.12e-04	0.0091	1.0	0.00e+00	0.0819	1.0	0.00e+00	0.004	1.03e-06	223	4.63e-09
Surface Soil													
Arsenic	1.0	1.0	0.00e+00	0.0091	1.0	1.95e-02	0.0819	1.0	2.22e+00	0.004	3.81e-03	0.7	5.44e-03
Cadmium	1.0	1.0	0.00e+00	0.0091	1.0	1.26e-02	0.0819	1.0	1.04e-01	0.004	5.28e-04	0.03	1.76e-02
Chromium	1.0	1.0	0.00e+00	0.0091	1.0	1.06e-02	0.0819	1.0	6.25e+00	0.004	9.40e-03	2.4	3.92e-03
Lead	1.0	1.0	0.00e+00	0.0091	1.0	1.01e-01	0.0819	1.0	1.02e+01	0.004	1.79e-02	0.9	1.98e-02
Selenium	1.0	1.0	0.00e+00	0.0091	1.0	1.39e-02	0.0819	1.0	2.52e+00	0.004	4.08e-03	31.6	1.29e-04
1,1-Dichloroethene	1.0	1.0	0.00e+00	0.0091	1.0	6.21e-01	0.0819	1.0	6.21e-01	0.004	1.94e-02	9	2.15e-03
Benzene	1.0	1.0	0.00e+00	0.0091	1.0	1.42e-01	0.0819	1.0	2.85e-01	0.004	4.66e-03	1	4.66e-03
Ethylbenzene	1.0	1.0	0.00e+00	0.0091	1.0	6.46e+00	0.0819	1.0	5.02e+01	0.004	2.66e-01	97.1	2.73e-03
Toluene	1.0	1.0	0.00e+00	0.0091	1.0	8.98e+00	0.0819	1.0	3.78e+01	0.004	3.22e-01	223	1.45e-03
Xylene (total)	1.0	1.0	0.00e+00	0.0091	1.0	1.08e+01	0.0819	1.0	9.73e+01	0.004	4.64e-01	179	2.59e-03
Groundwater Contaminants													
No data available													
												Total EQ	0.06

IN = (B)[(FIf)(Cdr)(IRdr)+(Fif)(Csr)(IRsr)+(FIs)(Cs)(IRs)]/BW
where: IN = Intake of contaminants of potential concern (mg/kg-day)
B = Fraction of contaminant in feed which is bioavailable (unitless)
FIf = Fraction ingested of food (feed) from contaminanted source (unitless)
Cdr = Chemical concentration in deep-rooted plants (mg/kg)
Csr = Chemical concentration in shallow-rooted plants (mg/kg)
IRdr = Ingestion rate deep rooted plants (kg/day)
IRsr = Ingestion rate for shallow rooted plants (kg/day)
FIs = Fraction of soil ingested from contaminanted source (unitless)
Cs = Chemical concentration in soil (mg/kg)
IRs = Ingestion rate for soil (kg/day)
BW = 2.75 kg for Lepus californicus

ATTACHMENT C-1

Chemicals of Potential Concern and Supporting Statistical Data

1.0 INTRODUCTION

This Appendix presents the results of the data evaluation performed to determine chemicals of potential concern (COPCs) for use in the Holloman Air Force Base (AFB) Table 2 risk assessment. COPCs for Holloman AFB were identified, in general, following guidance in Chapter 5 (Data Evaluation) of the *Risk Assessment Guidance for Superfund, Volume I Human Health Evaluation Manual* (Part A) (U.S. EPA, 1989) and the *Guidance for Data Useability in Risk Assessment* (U.S. EPA, 1990).

COPCs were identified for both organic and inorganic analytes in surface soils, subsurface soils, and groundwater. This was done for each of the solid waste management unit (SWMU) groups being evaluated for the quantitative and qualitative risk assessments. For the quantitative risk assessments, data were compiled from four different sampling efforts to determine COPCs: Table 2 sampling data, 29 Sites Study sampling data (Radian, 1992a) (Radian, 1992b), Walk-Haydel sampling data (Walk-Haydel, 1989), and Woodward-Clyde sampling data (Woodward-Clyde, 1994). For the qualitative risk assessments, the only data available were the Table 2 sampling data. These data sources are described in more detail in the following sections.

Tables C1-1 and C1-2 show the SWMU groups that were evaluated for the quantitative and qualitative risk assessments, respectively. Also shown in Tables C1-1 and C1-2 are the matrices evaluated for each SWMU group (i.e., surface soils, subsurface soils, groundwater) and the data sources for each SWMU group (i.e., Table 2 data, 29 Sites data, Walk-Haydel data, Woodward-Clyde data). In all, COPCs were determined for 5 different quantitative risk assessment SWMU groups and 16 different qualitative risk assessment SWMU groups.

This appendix is divided into five sections. Section 2.0 presents the COPCs identified for Holloman Table 2 SWMU groups, Section 3.0 gives an overview of the technical approach used, and Section 4.0 gives detailed results of the analysis performed. Lastly, references are in Section 5.0. Additional summary tables with detailed results are given in

Table C1-1
SWMUs, Matrices, and Data Sources Evaluated for Holloman Table 2 Quantitative Risk Assessments

IRP Site	SWMU Group	Data Sources	Matrices Evaluated
39	165/177/179/181	Table 2 Data 29 Sites Study Data	Subsurface Soils Surface Soils Groundwater Surface Water (dissolved and total)
36	129/178	Table 2 Data 29 Sites Study Data	Subsurface Soils Surface Soils Groundwater
16	118/132/AOC-A	Table 2 Data 29 Sites Study Data	Subsurface Soils Surface Soils Groundwater
47	54/55, 21/22/123	Table 2 Data Walk-Haydel Study Data Woodword-Clyde Study Data	Subsurface Soils Surface Soils Groundwater[a]
None	164	Table 2 Data	Subsurface Soils Surface Soils

[a] No Table 2 data for this matrix.

Table C1-2
SWMUs and Matrices Evaluated for Holloman Table 2 Qualitative Risk Assessments*

SWMU Group	Matrices Evaluated
119/2	Subsurface Soils
120/15	Subsurface Soils
121/17	Subsurface Soils
125/32	Subsurface Soils
126/36	Subsurface Soils
136	Subsurface Soils, Surface Soils
155	Subsurface Soils, Surface Soils
156	Subsurface Soils
56	Subsurface Soils, Surface Soils
63	Subsurface Soils, Surface Soils
71	Subsurface Soils, Surface Soils
78	Subsurface Soils, Surface Soils
124	Surface Soils
91	Surface Soils
AOC-U	Surface Soils
40/128/138	Subsurface Soils, Surface Soils

*Data for qualitative risk assessments all obtained from Table 2 sampling efforts.

Attachment A. The raw data used to determine COPCs is given in Attachment B. Attachments A and B are included in the back of this appendix.

2.0 SUMMARY

Chemicals of potential concern (COPCs) represent chemicals that are positively identified as present in a source area due to historical activities at the site. COPCs include those chemicals that are:

- Measured at levels significantly elevated above levels of the same chemicals measured in associated blank samples (i.e., chemicals for which >5% of the measurements exceeded the upper tolerance limit [UTL] for blanks); and
- Measured at levels significantly elevated above naturally occurring levels of the same chemicals.

COPCs were determined using the statistical approach described in this appendix to focus the data analysis efforts on only those compounds that are of concern at the site. Chemicals that were not detected at prescribed frequencies were eliminated as possible COPCs. The resulting list of COPCs were then evaluated for nature and extent of contamination, fate and transport, and risk to fully characterize site conditions at the Holloman Table 2 site. In addition, the COPCs presented in this Attachment were further refined by the risk assessors using toxicity screening tests. This refined COPC list is given in the risk assessment appendix (Appendix C).

Figure C1-1 details the decision path used to determine COPCs for the Table 2 data. COPCs were identified using the principles described in EPA guidance documents EPA (1989a) and EPA (1990a). Steps taken to determine COPCs included comparisons of site concentrations to blank concentrations and, for inorganic chemicals, comparisons to background concentrations. Figure C1-1 is different from the historical application of procedures described in the EPA guidance documents in that:

DECISION TREE FOR DETERMINING CONTAMINANTS OF POTENTIAL CONCERN FOR HOLLOMAN TABLE 2 DATA

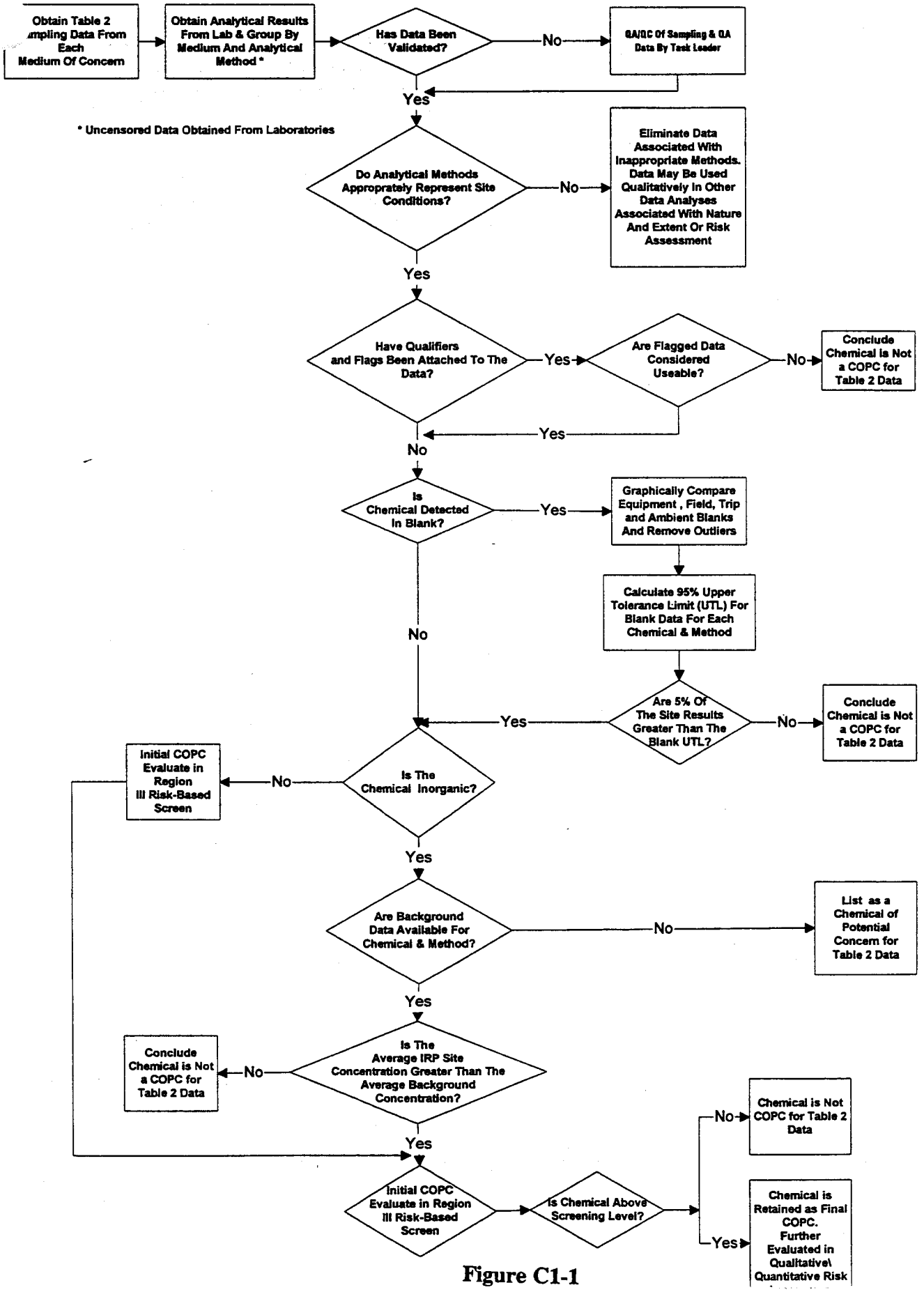


Figure C1-1

- Uncensored data were reported from the analytical laboratory so that proxy concentrations did not need to be estimated for results reported as "Not Detected" [this is the preferred approach according to (Gilbert, 1987) as referenced in (U.S. EPA, 1992); and

- "Occurrence" (as used to calculate "frequencies of occurrence" or "frequencies of detection") was defined as a result exceeding the upper tolerance limit for uncensored blank data (contrary to the normal usage of "occurrence" as results greater than a detection limit).

These changes from historical applications allowed a more technically justifiable determination of the COPCs without the potential for bias due to proxy concentrations and arbitrary limits based on factors of a single measurement (e.g., the 5 times and 10 times rule for evaluating results relative to blank data). The justification for this approach is provided in this appendix.

Tables C1-3 and C1-4 give the COPCs for the quantitative and qualitative risk assessments, respectively, for each SWMU group. COPCs are presented for surface soils, subsurface soils, and groundwater for the quantitative risk assessments (Table C1-3); and surface and subsurface soils only for the qualitative risk assessments (Table C1-4). Groundwater data were not collected and evaluated for the qualitative risk assessments. The COPCs listed in Tables C1-3 and C1-4 represent chemicals that were all positively identified on the site. However, not all of the COPCs listed in Tables C1-3 and C1-4 are shown in the COPC lists in the executive summary of the risk assessment appendix. The COPCs shown in the risk assessment summary are those that remained after the toxicity screening.

Figure C1-2 details how COPCs were determined for those quantitative risk assessment SWMU groups with multiple data sources. As shown in Figure C1-2, a separate list of COPCs was determined for each sampling and analysis event (i.e., Table 2, 29 Sites, Walk-Haydel, and Woodward-Clyde) for each SWMU group. (Radian determined the COPCs for the Table 2 and 29 Sites study, and used the COPCs as determined for the Walk-Haydel and Woodward-Clyde studies.) If, for any SWMU group, a chemical was listed as a COPC for any

Table C1-3
Initial Chemicals of Potential Concern for Holloman Table 2 Quantitative Risk Assessments [a]

SWMU Group	Chemicals of Potential Concern			
	Surface Soils		Subsurface Soils	Groundwater
165/177 /179/181	Arsenic [c] Barium [b] Cadmium [b,c] Chromium [b,c] Copper [c] Lead [b,c] Mercury [c] Nickel [c] Silver [c] Zinc [c] 1,1-Dichloroethene [c] Anthracene [b] Benzo(a)anthracene [b] Benzo(a)pyrene [b]	Benzo(b)fluoranthene [b] Benzo(g,h,i)perylene [b] Benzo(k)fluoranthene [b] Chrysene [b] Ethyl benzene [c] Fluoranthene [b] Indeno(1,2,3-cd)pyrene [b] Methylene Chloride [c] Phenathrene [b] Pyrene [b] Tetrachloroethene [c] Toluene [c] Xylene (total) [c]	Barium [b] Cadmium [b] Chromium [b] Silver [b] 2-Methylnaphthalene [b] 4-Chloro-3-methylphenol [b] Naphthalene [b] bis(2-Ethylhexyl)phthalate [b] p-Chloroaniline [b]	Beryllium [c] Lead [c] Zinc [c] 1,1,1-Trichloroethane [b,c] 1,1-Dichloroethane [b,c] 1,1-Dichloroethene [c] Acetone [c] Carbon tetrachloride [c] Chloroethane [b] Chloroform [c] Chloromethane [b,c] Tetrachloroethene [b,c] Trichloroethene [b,c] Vinyl Chloride [b] trans-1,3-Dichloropropene [b] **Surface Water:** Lead (total and dissolved) [b] Zinc (total and dissolved) [b]
129/178	Lead [b] Aniline [b] Anthracene [b] Benzene [b] Benzo(a)anthracene [b] Benzo(a)pyrene [b] Benzo(b)fluoranthene [b] Benzo(g,h,i)perylene [b] Benzo(k)fluoranthene [b] Chrysene [b]	Dibutylphthalate [b] Ethyl benzene [b] Fluoranthene [b] Hydrocarbons Indeno(1,2,3-cd)pyrene [b] Phenanthrene [b] Pyrene [b] Toluene [b] Trichloroethene [b]	Lead [b] Acetone [b] Hydrocarbons [b] Methylene Chloride [b]	Beryllium [c] Lead [c] Nitrate-Nitrite as N [b] Selenium [c] Bromodichloromethane [c] Chloroform [c] Toluene [c] Trichloroethene [c]

Table C1-3 (Continued)

SWMU Group	Chemicals of Potential Concern				
	Surface Soils		Subsurface Soils		Groundwater
118/132/ AOC-A	2,4,5-T[b]	Heptachlor epoxide[b]	2,4,5-TP (Silvex)[b]	Fluorene[b]	1,1,1-Trichloroethane[c]
	2,4,5-TP (Silvex)[b]	Hydrocarbons[b]	2,4-D[b]	Heptachlor[b]	1,1-Dichloroethane[c]
	4,4'-DDD[b]	MCPA[b]	4,4'-DDD[b]	Heptachlor epoxide[b]	1,2-Dichlorobenzene[b]
	4,4'-DDT	Merphos B	4,4'-DDE[b]	Hydrocarbons[b]	1,3-Dichlorobenzene[b]
	Acetone[b]	Methyl azinphos[b]	4,4'-DDT[b]	MCPA[b]	1,4-Dichlorobenzene[b]
	Aldrin[b]	Methyl parathion[c]	Acetone[b]	Merphos B[b]	4,4'-DDE[b]
	Chlorpyrifos (Dursban)[b]	Methylene chloride[b]	Aldrin[b]	Methoxychlor[b]	4,4'-DDT[c]
	Coumaphos[b]	Mevinphos[b]	Carbon disulfide[b]	Methyl azinphos[b]	Benzene[b]
	Diazinon[b]	PCB-1260[b]	Chloromethane[b]	Methyl ethyl ketone[c]	Chlorobenzene[b,c]
	Dichlorvos[b]	Sulprofos (Bolstar)[b]	Chlorpyrifos	Methylene Chloride[b,c]	Chloroform[c]
	Dieldrin[b]	Toluene[c]	(Dursban)[b]	Mevinphos[b]	Dieldrin[b]
	Dinoseb[b]	alpha-BHC[b,c]	Chrysene[b]	Naled[b]	Endosulfan I[b]
	Endrin[b]	delta-BHC[b,c]	Diazinon[b]	PCB-1260[b]	Endosulfan sulfate[b]
	Endrin Aldehyde[b]	gamma-BHC[b]	Dicamba[b]	Phenanthrene[b]	Endrin[b]
	Fenthion[b]		Dichloroprop[b]	Phorate[b]	Endrin aldehyde[b]
			Dieldrin[b]	Pyrene[b]	Ethyl benzene[b]
			Endosulfan I[b]	Sulprofos (Bolstar)[b]	Heptachlor epoxide[b,c]
			Endosulfan II[b]	Toluene[c]	Methyl parathion[c]
			Endrin[b]	Xylene (total)[c]	Methylene Chloride[c]
			Endrin aldehyde[b]	alpha-BHC[b]	Trichloroethene[c]
			Ethyl benzene[c]	delta-BHC[b]	alpha-BHC[c]
			Fenthion[b]	gamma-BHC[b]	gamma-BHC[b,c]
			Fluoranthene[b]		

Table C1-3 (Continued)

SWMU Group	Chemicals of Potential Concern		
	Surface Soils	Subsurface Soils	Groundwater
54/55, 21/22/123	Arsenic [b] Barium [b] Cadmium [b] Chromium [b] Lead [b] Selenium [b] 2-Methylnaphthalene [b] Benzo(a)anthracene [b] Chrysene [b] Hydrocarbons [b] Methylene chloride [b] Naphthalene [b] Phenanthrene [b] Pyrene [b]	Arsenic [b] Cadmium [b] Chromium [b] Mercury [b] Selenium [b] 1,1-Dichloroethene [b] 2-Hexanone [b] 2-Methylnaphthalene [b] 4-Methyl-2-Pentanone(MIBK) [b] Acetone [b] Benzene [b,d] Carbon disulfide [b] Dibenzofuran [b] Ethyl benzene [b,d] Hydrocarbons [b] Methylene chloride [b] Methyl ethyl ketone [d] Naphthalene [b] Toluene [b] Trichloroethene [b] Xylene (total) [b]	Arsenic [d] Barium [d] Beryllium [d] Chromium [d] Lead [d] 4-Methyl-2-pentanone(MIBK) [d] Benzene [d] Ethyl benzene [d] Naphthalene [d] Tetrachloroethene [d] Toluene [d] Xylene (total) [d]
164	Arsenic [b] Cadmium [b] Chromium [b] Lead [b] Selenium [b] 1,1-Dichloroethene [b] Benzene [b] Ethyl benzene [b] Toluene [b] Xylene (total) [b]	Arsenic [b] Barium [b] Cadmium [b] Chromium [b] Lead [b] Selenium [b] Toluene [b]	NA

COPCs determined separately for Table 2 Study, 29 Sites Study, Walk-Haydel Study , and Woodward-Clyde Study. If an analyte was listed as a COPC for any of these studies for a SWMU group, then that analyte was listed as a COPC for the SWMU group. It is noted that not all of the analytes listed were evaluated in every study. A summary of the methods and matrices evaluated for a particular study can be found in the respective study report.

Analyte listed as a COPC in Table 2 Study.

Analyte listed as a COPC in 29 Sites Study.

Analyte listed as a COPC in Walk-Haydel Study.

Analyte listed as a COPC in Woodward-Clyde Study.

IA = Not applicable. No groundwater data collected for this SWMU group.

Table C1-4
Chemicals of Potential Concern for Holloman Table 2 Qualitative Risk Assessments

SWMU Group	Chemicals of Potential Concern				
	Surface Soils		Subsurface Soils		
	Inorganic Chemicals	Organic Chemicals	Inorganic Chemicals	Organic Chemicals	
119/2	NA[a]	NA[a]	Arsenic Barium Cadmium Chromium Mercury Selenium	2-Methylnaphthalene Acenaphthene Acetone Dibenzofuran Dibutylphthalate Ethyl benzene Fluoranthene Fluorene	Methyl ethyl ketone Methylene chloride Naphthalene Phenanthrene Pyrene Toluene Xylene (total)
120/15	NA[a]	NA[a]	Arsenic Barium Cadmium Chromium Lead Selenium	Hydrocarbons Methylene chloride	
121/17	NA[a]	NA[a]	Arsenic Cadmium Chromium Lead Selenium	Acetone Carbon disulfide Hydrocarbons Methyl ethyl ketone Methylene chloride	
125/32	NA[a]	NA[a]	Arsenic Cadmium Chromium Lead Selenium	2-Hexanone 2-Methylnaphthalene 4-Methyl-2-pentanone(MIBK) Acetone Anthracene Benzene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	Carbon disulfide Chrysene Ethyl benzene Fluoranthene Hydrocarbons Indeno(1,2,3-cd) pyrene Methylene chloride Phenanthrene Pyrene Toluene Trichloroethene

Table C1-4 (Continued)

SWMU Group	Chemicals of Potential Concern			
	Surface Soils		Subsurface Soils	
	Inorganic Chemicals	Organic Chemicals	Inorganic Chemicals	Organic Chemicals
126/36	NA[a]	NA[a]	Arsenic Cadmium Chromium Lead Selenium	Acetone Hydrocarbons Methylene chloride
136	Arsenic Barium Cadmium Chromium Lead Selenium	1,1,1-Trichloroethane Acetone Ethyl benzene Hydrocarbons Methylene chloride Toluene	Arsenic Barium Cadmium Chromium Lead Selenium	1,1,1-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 2-Methylnaphthalene Acenaphthene Acetone Anthracene Benzene Carbon disulfide Chrysene Dibenzofuran Ethyl benzene Fluoranthene Fluorene Hydrocarbons Methyl ethyl ketone Methylene chloride Naphthalene Phenanthrene Pyrene Toluene Xylene (total)
155	Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Selenium Silver Sulfide Vanadium Zinc	4,4'-DDD 4,4'-DDE 4,4'-DDT Carbon disulfide Dichloroprop Dieldrin Endorsulfan II Endrin aldehyde Heptachlor epoxide MCPA Methyl azinphos Methyl parathion Naled Phorate gamma-Chlordane	Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Mercury Selenium Silver Sulfide Vanadium Zinc	1,1-Dichloroethene 1,4-Dichlorobenzene 2-Methylnaphthalene 4,4'-DDD Acenaphthene Anthracene Benzene Carbon disulfide Chrysene Dicamba Ethyl benzene Fluoranthene Fluorene Heptachlor epoxide Methylene chloride Naled Naphthalene Phenanthrene Pyrene Toluene Xylene (total) gamma-Chordane

Table C1-4 (Continued)

SWMU Group	Chemicals of Potential Concern				
	Surface Soils		Subsurface Soils		
	Inorganic Chemicals	Organic Chemicals	Inorganic Chemicals	Organic Chemicals	
156	NA[a]	NA[a]	Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Mercury Selenium Sulfide Vanadium Zinc	2,4,5-T 2-Methylnaphthalene 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin Carbon disulfide Dibenzofuran Dichloroprop Dinoseb Endrin Endrin aldehyde Ethanol Ethoprop	Fensulfothion Heptachlor Heptachlor epoxide Methyl azinphos Methyl parathion Methylene chloride Naled Phenanthrene Thallium alpha-Chlordane delta-BHC gamma-Chlordane trans-1,2-Dichloroethene
56	Arsenic Barium Cadmium Chromium Lead Selenium	1,1,1-Trichloroethane Acetone Carbon disulfide Ethyl benzene Hydrocarbons Methylene chloride Toluene	Arsenic Barium Cadmium Chromium Lead Selenium	1,1,1-Trichloroethane 1,1-Dichloroethane Acetone Benzene Carbon disulfide Ethyl benzene	Hydrocarbons Methyl ethyl ketone Methylene chloride Toluene Xylene (total)
63	Arsenic Cadmium Chromium Lead Selenium	Chrysene Fluoranthene Methanol Methylene chloride Pyrene	Arsenic Barium Cadmium Chromium Lead Selenium	None[b]	

Table C1-4 (Continued)

SWMU Group	Chemicals of Potential Concern			
	Surface Soils		Subsurface Soils	
	Inorganic Chemicals	Organic Chemicals	Inorganic Chemicals	Organic Chemicals
71	Arsenic Cadmium Chromium Lead Selenium	Ethanol Methylene chloride	Arsenic Barium Cadmium Chromium Lead Selenium	Ethanol Methylene Chloride
78	Arsenic Barium Cadmium Chromium Lead Selenium	Acetone Hydrocarbons Methylene chloride	Arsenic Cadmium Chromium Selenium	Acetone Hyrocarbons Methylene Chloride
124	None[b]	Benzo(a)anthracene Chrysene Hydrocarbons Toluene Trichloroethene	NA[a]	NA[a]
91	Arsenic Barium Cadmium Chromium Lead Selenium	Acetone Methylene chloride	NA[a]	NA[a]
AOC-U	Arsenic Barium Cadmium Chromium Mercury Selenium	Acetone Carbon disulfide Methylene chloride Trichloroethene	NA[a]	Naa

Table C1-4 (Continued)

SWMU Group	Chemicals of Potential Concern			
	Surface Soils		Subsurface Soils	
	Inorganic Chemicals	Organic Chemicals	Inorganic Chemicals	Organic Chemicals
40/128/138	Arsenic Barium Cadmium Chromium Lead Mercury Selenium	Acetone Benzo(g,h,i)perylene Fluoranthene Hydrocarbons Indeno(1,2,3-cd)pyrene Methylene chloride bis(2-Ethylhexyl)phthalate Pyrene	Arsenic Barium Cadmium Chromium Mercury Selenium	Acetone Chloromethane Methylene chloride

[a] NA = Not Applicable. Analysis of this matrix/parameter were not performed for this SWMU group.
[b] None. Analyses were performed, but no organic COPCs were identified.

DECISION TREE FOR DETERMINING FINAL CONTAMINATS OF POTENTIAL CONCERN FOR THE QUANTITATIVE RISK ASSESSMENTS USING TABLE 2, 29 SITES STUDY, WALK-HAYDEL, AND WOODWARD-CLYDE DATA

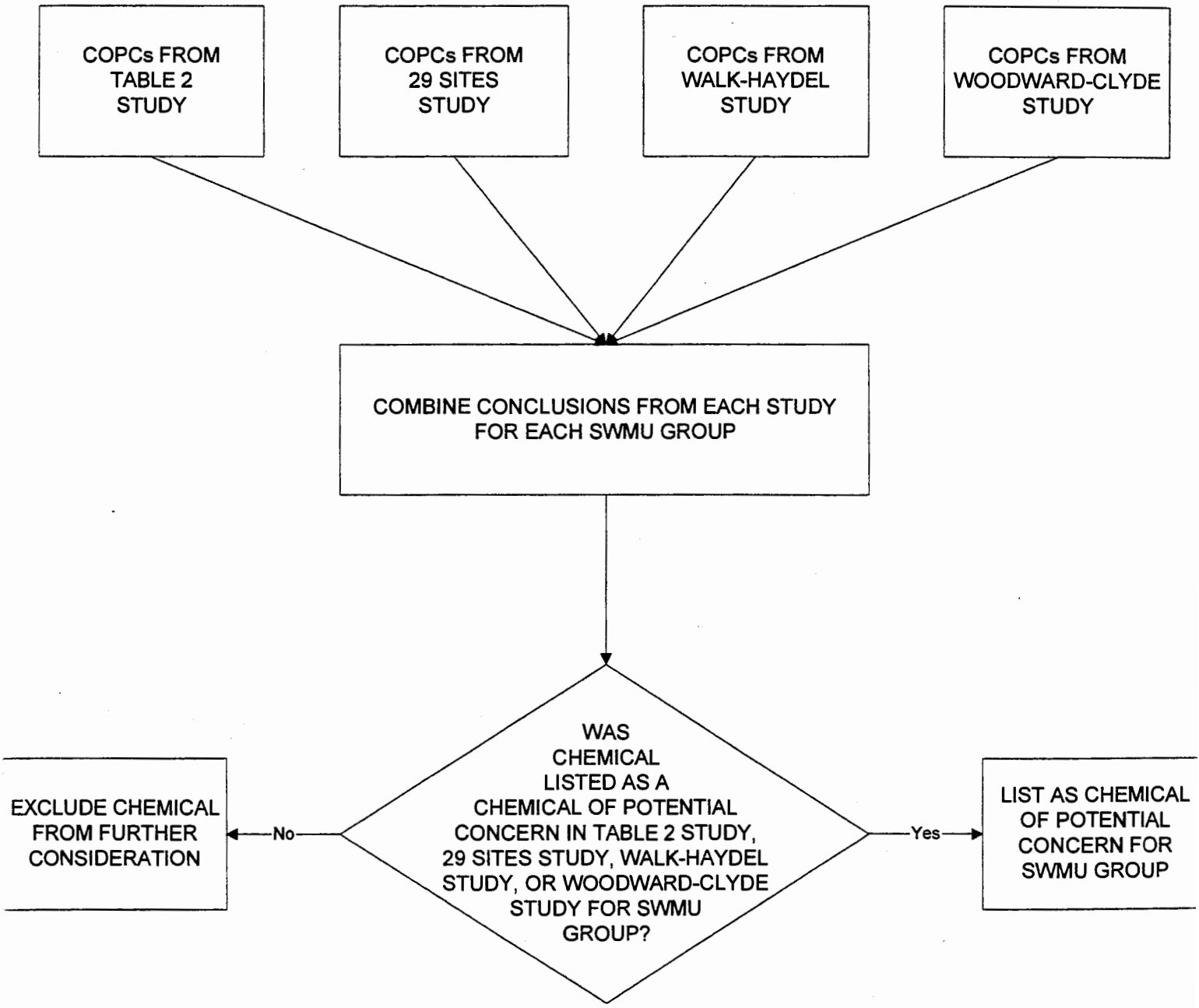


Figure C1-2

one of these data sources, then that chemical was listed as a COPC for that SWMU group. Thus, for example, if methylene chloride was not listed as a COPC for the Table 2 data, the Walk-Haydel data, and the Woodward-Clyde data for SWMU group 118/132/AOC-A for groundwater, but was listed as a COPC for SWMU group 118/132/AOC-A for the 29 Sites Study, then methylene chloride was still listed as a COPC for SWMU group 118/132/AOC-A since it was a COPC for at least one of the data sources. If a chemical was not a COPC for any of the data sources for a particular SWMU group, then that chemical was not listed as a COPC for that SWMU group. COPCs were determined in this way since data from each of these sources were collected at different times and thus had different sources of bias and variability. To mix QC and site data from all events and determine COPCs would be inappropriate. Therefore, to keep comparisons during the COPC process on a more similar basis, COPCs were determined for each sampling and analysis event and then conclusions drawn from all the resulting COPC lists for each SWMU group.

3.0 TECHNICAL APPROACH

The technical approach discussed in this section primarily addresses how COPCs were determined for the Table 2 data and how data from these four sources were combined to calculate summary statistics for the risk assessment. Because the historical reports have already been approved, COPCs for the 29 Site Study, the Walk-Haydel study, and the Woodward-Clyde study were used as determined in those studies. Descriptions of how COPCs were determined for those studies can be found in those study reports (Radian, 1992b) (Walk-Haydel, 1989) (Woodward-Clyde, 1994).

COPCs were identified for the Table 2 data by evaluating the potential for false-positives using blank results and then calculating the frequency of occurrence of site results. Statistical comparisons to naturally occurring background concentrations were performed for inorganic chemicals. This technical approach follows the *Guidance for Data Useability in Risk Assessments* (U.S. EPA, 1990). The evaluation to determine contaminants of potential concern

(COPCs) for the risk assessment is detailed in Figure C1-1 and includes the following steps outlined in the EPA guidance:

- Review raw data for representativeness;
- Review blank data and determine upper tolerance limits for blank concentrations (i.e., the upper tolerance limits for blank concentrations define limits at which site results can be distinguished from analytical noise);
- Compare site results to blank data, and calculate frequency of occurrence for site chemicals (i.e., determine if site concentrations can be distinguished from blank results using standard sampling and analytical methods);
- Perform comparisons between site and background concentrations for naturally occurring chemicals (i.e., inorganic chemicals).
- Calculate summary statistics for contaminants of potential concern.

Each of these steps are described in the following sub-sections.

3.1 Review of Available Raw Data for Representativeness

The first step in the COPC identification process is to review the available raw data for applicability. The EPA guidance states that all available data should be used to determine COPCs if the data are of sufficient and comparable quality, and representative of site conditions. According to EPA guidance this data review process must include an evaluation of the following areas:

- Data available from historical site investigations;
- Analytical methods;
- Quantitation limits;
- Data qualifiers; and

- Tentatively identified compounds (TICs).

Each of these steps in the data review process are addressed below.

3.1.1 Review of Data Available from Historical Site Investigations

Tables C1-1 and C1-2 in Section 1 show the data sources for each of the SWMU groups evaluated for the quantitative and qualitative risk assessments, respectively. As shown in Table C1-2, the only data available for the qualitative risk assessments were surface and subsurface soil sample data collected during the Table 2 investigation. As shown in Table C1-1, groundwater, surface soil, and subsurface soil data from four different studies were available for the quantitative risk assessments for some of the SWMU groups. Data collected for the 29 Sites Study (Radian, 1992b) and during the Table 2 investigation were available for SWMU groups 165/177/179/181, 129/178, and 118/132/AOC-A. Surface and subsurface soil data collected during the Table 2 investigation were available for SWMU group 164 (the B-1080 Pond). Lastly, for SWMU group 54/55 21/22/12, data was available from the Table 2 investigation, the Walk-Haydel study (Walk-Haydel, 1989), and the Woodward-Clyde Study (Woodward-Clyde, 1994).

The Table 2 RFI data, the 29 Sites Study data, the Walk-Haydel data, and the Woodward-Clyde data were all collected during different time periods by different sampling teams. The Table 2 RFI data was collected during the summer of 1993 by a Radian sampling team, 29 Sites Study data was collected during 1992 by another Radian sampling team, the Walk-Haydel Study data was collected during 1989 by a Walk-Haydel sampling team, and the Woodward-Clyde Study data was collected during 1994 by a Woodward-Clyde sampling team.

EPA guidance specifies that data collected from a site at different time periods by different sampling teams can be combined if the methods used to analyze samples from different time periods and sampling teams are similar in terms of types of analyses conducted and the

QA/QC procedures followed, and if the concentrations between sampling periods are similar. In calculating summary statistics for the risk assessment, data from all the available sources listed above were compiled and used together. Chemicals were grouped and evaluated by analytical method. The QA/QC procedures followed for each of these data collection efforts are discussed in their respective study reports.

Metals background data for soils and groundwater were obtained from a Holloman Base-wide Background report entitled *Base-Wise Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993). Background data were collected during the spring of 1993 by Radian Corporation. The only exception to this was for lead in soils. Concentrations for background lead in soils reported in the *29 Sites Study* were used instead of those reported in the *Base-Wide Background Study*. This was because lead was analyzed by Method SW7421 in the *29 Sites Study*, but by Method SW6010 in the *Base-Wide Background Study*. Since Method SW7421 for lead was also used for the Table 2 Site Investigation, comparing Table 2 Site data to the 29 Sites Study Background data provided data sets that would be more comparable in terms of the analytical methods used.

3.1.2 Analytical Methods

An examination of the analytical methods used to evaluate the data for this remedial investigation is an important part of the data review process. The analytical methods must be chosen so that compounds of interest (e.g., chemicals known to have been used on the Holloman Table 2 area) can be reliably quantitated. For this investigation, the approved work plan was implemented successfully and data were generated using the planned analytical methods. A detailed evaluation of the analytical methods and quality control (QC) procedures used during the Table 2 RFI investigation is presented in the *Informal Technical Information Report, Holloman AFB Table 2 Phase I, RCRA Facility Investigation* (ITIR) (Radian, 1994).

The data collected for the 29 Sites Study went through the same type of evaluation as the Table 2 data. The QC results for the 29 Site Study can be found in the *Sampling and Quality Control Summary Report* (Radian, 1992c). QC results for the Walk-Haydel and the Woodward-Clyde data are referenced in those respective reports (Walk-Haydel, 1989) (Woodward-Clyde, 1994).

After combining the Table 2 RFI investigation data with data from other investigations some chemicals were found to have been analyzed using two different analytical methods. All data analysis was performed separately for each chemical and analytical method. [The only exception to this was for arsenic and selenium. In the Holloman background study (Radian, 1993), arsenic and selenium in soils were analyzed using Method SW6010. During the Holloman Table 2 site investigation, arsenic and selenium in soils were analyzed using Methods SW7060 and SW7740, respectively. When doing a comparison between site and background results, arsenic by SW7060 was compared to arsenic by SW6010, and selenium by SW7740 was compared to selenium by SW6010]. If a chemical was shown to be a COPC by any one analytical method, then that chemical was listed as a COPC and only data from that analytical method were used to determine summary statistics for the risk assessment. If a chemical was shown to be a COPC by multiple analytical methods, then the analytical method determined to be most representative of Holloman AFB site conditions (i.e., the analytical methods that provided the most sensitive or reliable results) were used. Only results from the analytical method deemed most representative were used to determine summary statistics for the risk assessment. For inorganic analytes, results from the graphite furnace methods were chosen over results from the inductively coupled plasma emission spectroscopy method because graphite furnace spectroscopy is subject to fewer interferences and produces more reliable measurements. For organic analytes, measurements from methods SW8015MP and SW8010 were chosen over methods SW8240 and SW8270 because these methods are more sensitive and able to achieve lower detection limits.

3.1.3 Quantitation Limits

The third step in the data review, as specified in the EPA guidance, involves the evaluation of "quantitation limits" for all of the chemicals assessed at the site. This analysis may lead to the use of "proxy" (or estimated) concentrations for values reported as "not detected" and/or the elimination of certain chemicals from further consideration (because they are believed to be absent from the site).

The ITIR report (Radian, 1994) gives "quantitation limits" or detection limits (DLs) specific to each sample collected during the Table 2 RFI. The sample DLs take into account sample characteristics (e.g., matrix, dry weight), instrument capability, and analytical dilutions. DLs represent the lower bound of the normal working range for a particular instrument and method, and in this sense are conceptually similar to method quantitation limits.

Although DLs are available for future censoring of the Table 2 RFI data, they were not used by the analytical laboratory to censor data prior to the statistical analyses performed for this investigation. "Uncensored" data were requested from the laboratories for all sample and blank results. Uncensored data are measurements reported as measured by the analytical instrument using the standard analytical and data reporting techniques, except that results below the DL are not discarded or reported as "not detected." Thus, numerical results are available for a larger proportion of the sample measurements. "Censoring," while useful for a variety of reporting needs (e.g., censoring all results below a health-based criteria and reporting "< Health Limit"), complicates statistical analysis and interpretation by removing information about measurement variability. Censoring also necessitates the use of proxy concentrations for results reported as "not detected" so that a numerical estimate is available for each result.

Many techniques have been devised (Lambert, 1991 Newman, 1989 Helsel, 1990) to estimate concentrations less than the censoring level (e.g., use ½ the detection limit or a random number between zero and the detection limit), however each of these methods require

assumptions which may not be valid. And in each case, the data user still does not know if the original measurement was actually just below the censoring level or was in fact zero. Thus, conclusions based on analyses using proxy concentrations may be biased positively or negatively by the choice of the proxy concentration. A better approach is to use the uncensored data generated by the analytical laboratory and prevent the need for proxy concentrations (EPA, 1992) (Gilbert, 1987). While these measurements below the detection limit may not indicate the presence and/or concentration of target analytes as reliably as measurements above the detection limit, the uncensored measurement is a better estimate of the concentration than any proxy concentration and will allow a better characterization of site conditions by data users and decision makers.

Uncensored data were used as reported for all inorganics and most organic analyses performed on the Table 2 RFI data. This includes the use of negative measurements (results) when they were reported for inorganic constituents. The use of negative results is appropriate and justifiable and has been recommended by numerous authorities for this type of application (see, for example, ASTM D-4210-83). The use of negative measurements is technically appropriate for all methods but is more common for inorganic methods. As the true concentration approaches zero, measurement variability causes the range of possible measurements to include negative results. As shown in the example in ASTM D 4210-83, exclusion or censoring of these negative measurements would bias any summary statistics (e.g., the average or mean) and thus provide a biased estimate of site conditions. Therefore, all uncensored measurements (i.e., positive and negative) were used as reported in the statistical determination of COPCs.

For some of the organic chemicals, the Table 2 data were censored by the laboratory. This happened for those organic methods that use electronic filtering mechanisms to eliminate signals below a specified threshold (e.g., peak height, peak width, area reject). For these methods, results included data that were above the quantitation limit, "J" flagged data (i.e., reported results less than a quantitation limit), and "NDs" (i.e., where an "ND" indicated "no signal greater than the established threshold", not that the measurement was less than a detection

limit). Because there is a positive concentration related to the signal threshold (i.e., ND does not mean zero concentration), proxy concentrations were estimated for Table 2 organic data reported as "NDs".

Although most of the data were uncensored for the Table 2 data, censored data were reported for the 29 Sites Study data, the Walk-Haydel data, and the Woodward-Clyde data for both organic and inorganic chemicals. Thus, for the organic Table 2 data reported as ND, and for the 29 Sites data, the Walk-Haydel data, and the Woodward-Clyde data reported as ND it was necessary to estimate proxy concentrations (estimated results) for NDs in order to calculate summary statistics for the risk assessment. As described above, there are a number of ways for estimating proxy concentrations (e.g., substituting ½ the detection limit, substituting a uniform random number between zero and the detection limit, etc.) It is noted that the Table 2 data had J-flagged results (i.e., results lower than the detection limit); thus, using a number between 0 and the DL would provide an overly conservative estimate of NDs since it is known that the instrument can detect results down to the minimum J-flagged result (at least for the Table 2 data). Therefore, proxy concentrations were estimated for NDs using a random uniform number between 0 and the minimum result. This was also done for the SWMU groups where the Table 2, 29 Sites, Walk-Haydel, and the Woodward Clyde data were all combined. Although the 29 Sites, Walk-Haydel, and Woodward Clyde data sets were censored, it was believed that using a random number between 0 and the minimum result for the combined data sets still provided the best approach, since the DLs for the Walk-Haydel data were, in some cases, orders of magnitude higher than the maximum detected results. In these cases, using a number between 0 and the DL would result in means and UCLs that were higher than the maximum detected result for the combined data set.

The approach used for estimating NDs is consistent with the EPA *Risk Assessment Guidance* document (RAGS) (U.S. EPA, 1989). RAGS states that if using ½ the DL for NDs results in UCLs that are larger than the maximum detected result, then the ND record can be thrown out from the data set. We did not throw out the ND record, but estimated the ND with

a more reasonable proxy concentration (i.e., a random number between 0 and the minimum detected result, instead of ½ the DL).

3.1.4 Data Qualifiers or Codes

The fourth step in the data review process involves a review of data qualifiers or codes reported with the analytical results so that uncertainties can be identified and evaluated. All data that were validated during the QA/QC process were used to determine COPCs. This includes some data with qualifiers that indicate known identities, but uncertain concentrations. A complete description of the laboratory qualifier codes associated with the Table 2 analytical data is given in the ITIR report. Laboratory qualifier codes associated with the 29 Sites data, the Walk-Haydel data, and the Woodward-Clyde data are discussed in each of those reports.

3.1.5 Tentatively Identified Compounds

The last step in the data review process is an evaluation of tentatively identified compounds (TICs). The mass spectral analysis of samples for volatile organic compounds (VOCs) and semivolatile organic compounds (semi-VOLs) results in the identification and quantitation of compounds given in the project target compounds list (TCL). Sometimes the mass spectra indicate the presence of additional organic compounds that are not on the TCL. These spectra are compared with library spectra, and the compounds are tentatively identified compounds (TICs). The assigned identity and reported concentrations of TICs are uncertain because they are not based on direct comparison to calibration standards containing the compound, as is the case for TCL compounds. EPA guidance states that TICs should be included in the risk assessment unless information exists to indicate that the TICs are not present at the site or unless the reported TICs do not have any associated toxicity values and therefore cannot be evaluated in the risk assessment. All of the TICs reported for the Table 2 data, the 29 Sites data, and the Walk-Haydel data were evaluated and had no associated risk toxicity values and were therefore removed from the data sets. TICs were not reported for the Woodward-Clyde data.

3.2 Review of Blank Data

According to EPA guidance, the second step in determining COPCs is to review the blank data to determine if site results are due to a source other than historical site activities (e.g., sampling or laboratory contamination). The review of the blank data discussed below only applies to the review performed for the Table 2 data. A discussion of how site sample results were compared to blank results for the 29 Sites Study, the Walk-Haydel Study, and the Woodward-Clyde study can be found in each of those reports (Radian, 1992a & 1992b) (Walk-Haydel, 1989) (Woodward-Clyde, 1994).

Field and laboratory blanks are included in the analytical program to provide an indication of the potential introduction of contaminants into samples during sample collection or analyses (e.g., during sampling, decontamination, or shipping). In addition, blank results are used to evaluate the "noise" in the analytical system to verify whether site concentrations were in fact greater than the analytical noise. The end result of this analysis was the calculation of upper tolerance limits (UTLs) for the blank data which are used to identify upper limits for the blank concentrations.

The types of blank data evaluated included method blanks, equipment blanks, and trip blanks. Method blanks (i.e., laboratory blanks) were obtained for every analytical batch. Equipment rinsate blanks (i.e., field blanks) were obtained as prescribed in the Work Plan (Radian, 1993b). Trip blanks were obtained as prescribed in the Work Plan for soil samples for Method SW8240. Trip blanks and equipment rinsate blanks were obtained for groundwater samples for Methods SW8010 and SW8020.

The blank data were initially evaluated to determine if there were any extremely high or outlying data which would indicate possible blank contamination. Box plots of the data were generated for each matrix (groundwater and soils), method, and analyte for the different types of blank data. Box plots are useful graphical tools for comparing the central tendency and

dispersion of data distributions. An example of the box plot figures used for this analysis is presented in Figure C1-3. Figure C1-3 shows example box plots for two cases:

- Where the Table 2 source area data are indistinguishable from blank data; and,
- Where the Table 2 source area data appear different from blank data.

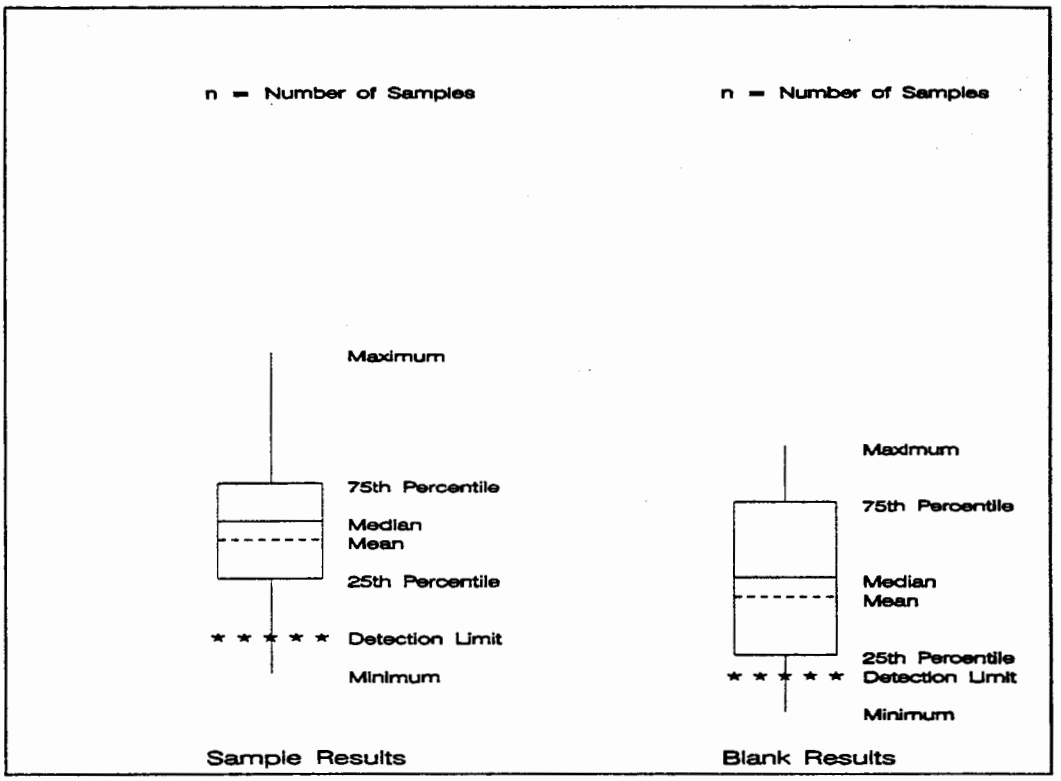
Each box plot is annotated to describe the summary statistics shown in the plot. The bottom and top of the box are the 25th and 75th percentiles of the data, respectively; the bottom and the top of the vertical lines extending from the box plot are the minimum and maximum of the data, respectively; the solid horizontal line contained within the box is the median (the 50th percentile); and the dashed horizontal line is the mean. The labels on the x-axis identify the type of sample (e.g., sample results or blank results). The sample size is also identified at the top of each box plot. Lastly, horizontal stars indicating the median reported detection limit are overlaid on the box plots.

Results of this analysis of the box plots showed that, in general, there were no apparent differences between the distributions of blank results for the different types of blank samples, for a given analyte (i.e., there were no indications of contamination due to sampling or analysis activities). The different types of blank samples were therefore pooled for each matrix and analyte. Values that were statistical outliers or that were judged during the QA/QC evaluation to be potentially biased high were flagged, but included in the calculation of the UTLs for blanks. Sample results from the site associated with these biased blank samples were also flagged by the QA reviewer, but were included in the determination of COPCs.

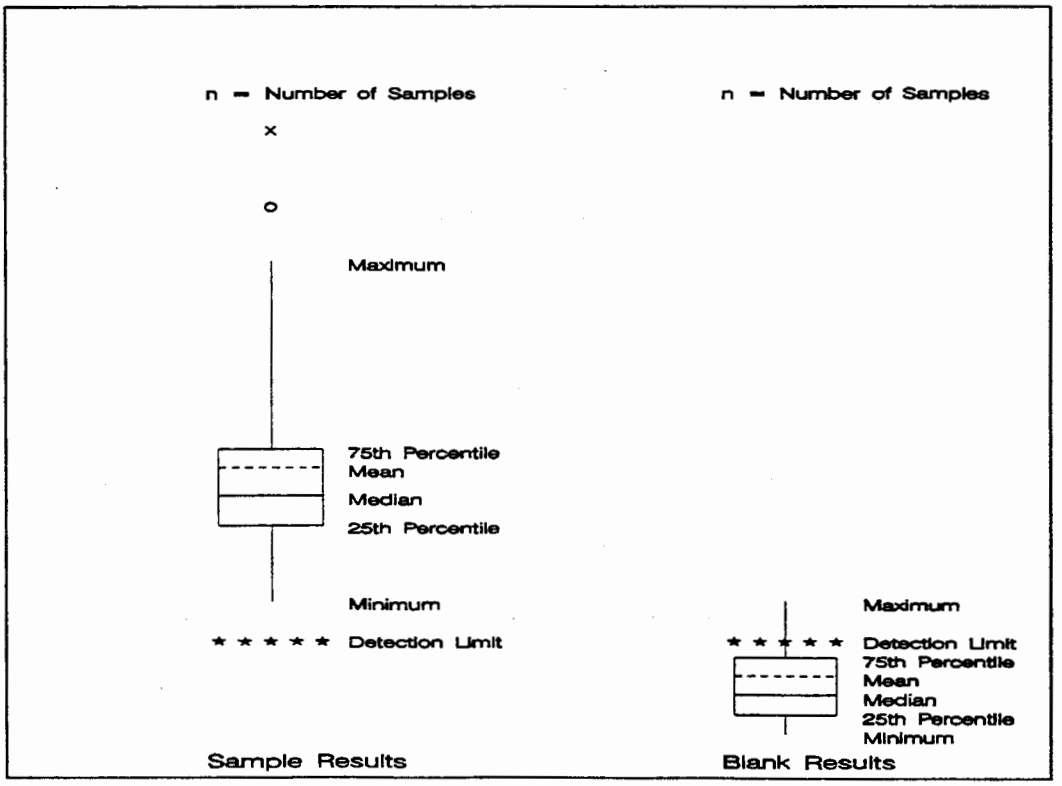
Upper tolerance limits (UTLs) were calculated for the blank samples as an indication of the upper limit of blank measurements (i.e., the upper limit of analytical "noise"). A site result greater than the UTL for the blanks was considered a positive occurrence for that chemical.

Figure C1-3 Example Box Plots

Where Samples are Not Distinguishable from Blanks



Where Samples are Distinguishable from Blanks



EPA guidance (both Contract Laboratory Program and risk assessment guidance) suggests that any site concentration greater than 5 times the maximum blank result for that analyte be considered a positive identification and should be included in the risk assessment. For common laboratory contaminants (CLCs), such as acetone, methyl ethyl ketone, methylene chloride, toluene, and the phthalate esters, the EPA recommendation is that site concentrations greater than 10 times the maximum blank result be considered a positive identification and should be included in the risk assessment. The approach used for the Table 2 RFI analysis to determine positive occurrences or frequencies of occurrence deviates from that suggested in the EPA guidance. As stated, for this risk assessment, results greater than the calculated UTL for blanks are considered positive occurrences and included in the risk assessment. The approach used is believed to be a more justified approach in that it is a more accurate assessment of the likelihood of a measurement to be analytical noise or representative of site conditions. The intent of the 5 and 10 times rule in the EPA guidance is to identify results that can be distinguished from analytical noise and those that cannot. The calculated UTLs for blank results accomplish this objective since they are probabilistic upper limits for the blank concentrations for a specific analyte.

Upper tolerance limits for the blank samples were calculated assuming a normal distribution for those blank data sets found to be normally distributed according to the Shapiro-Wilk W test (Gilbert, 1987). The normal UTL is calculated using the following equation:

$$UTL = \bar{x} + (K \times s)$$

where $\bar{x}$ is the estimated sample mean, K is the tolerance factor, and s is the estimated standard deviation. Normal UTLs were calculated for the 95th percentile (i.e., a coverage of 95%) with 95% confidence. Censored data were reported for some of the organic analytes. For these organics, values reported as ND were estimated by using probability plotting methods (Gilbert, 1987). For blank data sets that were not normally distributed, non-parametric UTLs were calculated. The non-parametric UTL is simply the maximum blank concentration. However, the coverage for non-parametric UTLs is a function of the sample size and was often less than the

coverage of 95% used for the normal UTLs. The next section discusses how the blank UTLs were used in the comparison to site data.

3.3 Frequencies of Occurrence for Site Data

The third step in the COPC determination process performed for this RFI was to compare the Table 2 site data to the Table 2 blank data to determine the potential for false-positive measurements because of laboratory or field contamination and to determine if target analytes occur frequently enough to pose a risk to human health or the environment. Frequencies of occurrence were calculated for each analyte, where a positive occurrence was any result greater than the upper tolerance limit for the blanks. According to EPA guidance (USEPA, 1989), those analytes with a frequency of occurrence of less than 5% for any area may be eliminated from the risk assessment for that area. Analytes with a frequency of occurrence of greater than 5% for any area were considered for inclusion as a COPC in the risk assessment for that area. Inorganic analytes were further evaluated by comparing measurement results on the site to background concentrations, as discussed in the next section.

3.4 Comparison of Inorganic Site Concentrations to Naturally Occurring Background Levels

The fourth step in the COPC determination process performed for this RFI was to compare concentrations of naturally occurring chemicals to background levels. For inorganic soil and groundwater chemicals, comparisons were performed between soil site concentrations and naturally occurring soil background levels. Background data was obtained from the Holloman Basewide Background report entitled *Base-Wide Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993).

Two types of statistical comparisons were performed between site and background concentrations to determine if there was any evidence of metals contamination on the site. These

are means comparisons and individuals comparisons. In Section 3.4.1, a summarization of the background data that were used for these comparisons is given and Section 3.4.2 gives an overview of these two types of tests.

3.4.1 Characterization of Background Data

"Background" concentrations for soil and groundwater metals represent metals concentrations that are indigenous to the Holloman Table 2 area and not affected by activities occurring at Holloman. This subsection discusses the background data that were used for each of these matrices and the calculation of upper tolerance limits for background.

Results of a Basewide Background Sampling Investigation (BBSI) conducted at Holloman Air Force Base are given in a report entitled *Base-Wise Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993a). In this report, background concentrations were characterized for both total and dissolved groundwater metals, and background concentrations were characterized for soils ranging from depths of 0 to 7 feet.

All of the background data used, with one exception, was obtained from the Holloman Basewide Background report entitled *Base-Wide Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993a). The only exception to this was for lead in soils. Concentrations for background lead in soils reported in the *29 Sites Study* were used instead of those reported in the *Base-Wide Background Study*. This was because lead was analyzed by Method SW7421 in the *29 Sites Study*, but by Method SW6010 in the *Base-Wide Background Study*. Since Method SW7421 for lead was also used for the Table 2 Site Investigation, comparing Table 2 Site data to the 29 Sites Study Background data provided data sets that would be more comparable in terms of the analytical methods used.

3.4.2 Means and Individuals Comparisons of Inorganic Site Concentrations to Background

Two types of statistical analyses were used to compare inorganic results from site areas to background areas. Tests of central tendency (e.g., means comparisons) were used to determine if, on the average, concentrations of metals in the source areas were greater than average background concentrations (as reported in the Background Report). Additionally, individual source area results were compared to upper tolerance limits (UTLs). These comparisons were used to determine if individual sample results indicated the presence of hot-spots.

A discussion of the applicability of tests of individual comparisons and tests of central tendency (e.g., means comparisons) is given in the first subsection below. This discussion is provided as an explanation of the use of both methods to determine if metals concentrations in source areas exceed those of background. The second subsection below gives a discussion of the statistical methods used to perform the means and individuals comparisons. Results of these statistical comparisons are provided in Section 4 of this appendix.

Description of Tests of Means and Individuals Comparisons

Two types of statistical comparisons may be used to compare results from different sample populations. Means comparisons may be used to compare the average background concentration to a corresponding average concentration for a site of interest (e.g., downgradient monitoring wells). Additionally, individual site results may be compared to calculated UTLs for background concentrations.

Means comparisons [e.g., the Student's t-Test, the Wilcoxon Test, Analysis of Variance (ANOVAs)] are the preferred approach to testing whether or not measurement results indicate a difference between two or more "sample populations" of interest. In this risk

assessment, as in other similar studies, the two sample populations are "background" and "downgradient" or "affected area." Since these statistical concepts are more readily understood with examples, the following discussion will use the comparisons for groundwater as an example assessment to which these concepts may be applied. Conceptually, a means comparison tests the measurement results to determine the likelihood that they actually came from a single parent population, rather than from two different populations. (A Student's t-Test is a statistical test that can be performed when comparing two sample populations. An ANOVA is a statistical test that can be performed when comparing multiple sample populations). It is assumed that there is no difference between the two populations (i.e., that downgradient is not different from background) as long as the observed difference between their averages is within the range that could be attributed to chance.

The amount of difference attributable to chance in a means comparison is a function of variability in the sample data and the number of sample results available. The difference attributable to chance reflects the uncertainty in the statistical test and becomes smaller as the sample size increases. It also becomes smaller as the variability among results within each of the two populations decreases. The uncertainty resulting from sample size and variability directly affects what is known as the *power* of the statistical comparison. The power of a statistical comparison is the probability of detecting a given difference at a specified confidence level. As the power increases, it becomes possible to detect smaller and smaller differences between the true population means. Thus, with increased power there is less risk of failing to detect a difference that actually exists. This should not be confused with the confidence level of the test, which is related to the probability of erroneously concluding that a difference exists between the population means, when in fact the population means are not different. (As the confidence level increases, the probability of incorrectly indicating a difference decreases.)

The comparison of individual results to UTLs of a given population is another way of testing the difference between two sample populations. The UTL used in these comparisons represents an estimate of the upper 95th percentile (i.e., a coverage of 95%) with 95% confidence

of the true background concentration of the analyte of interest. For data that are not normally distributed the coverage may be ≤95% (a 95% coverage may not be achievable given the limitation of the statistical methods used for the non-normal case) and the confidence level is 95 percent. Thus, there is a relatively small chance, on the order of 1 in 20, of a sample of uncontaminated groundwater (i.e., groundwater that is no different from background) having a metal concentration greater than the UTL. When individual sample results are compared to UTLs, they are interpreted to indicate the presence of contamination when they exceed the UTLs. On the other hand, samples are considered to be not different from background as long as they do not exceed the UTL.

In most cases, means comparisons offer significant advantages over comparisons using individual results compared to UTLs. However, both types of comparisons are useful and they provide different information about the data and the parent populations. Means comparisons offer greater statistical power than comparisons based on the UTL. Thus, means comparisons can detect smaller differences between two populations and are less likely to fail to detect a difference that actually exists. Used to compare monitoring well results to background data, means comparisons can detect lower levels of contamination and are less likely to fail to detect contamination when it actually exists. Comparisons using individual results compared to UTLs are less sensitive and more likely to fail to detect contamination because of the inherent uncertainty in individual measurements. Much of this uncertainty is attributable to random measurement error, which is effectively "averaged out" in means comparisons where multiple results are considered together as a set.

The strength of means comparisons can also be their weakness. In the same way that random measurement error gets averaged out in the calculation of a sample mean, so can actual, non-random effects be diluted and overlooked. For example, four wells might be grouped together based on available hydrogeologic information. Whereas comparing average results for the four wells offers more power, it is important not to overlook cases in which results from one member of the initial group stand out as appreciably different from the others. When this occurs, comparison of this single anomalous result to the UTL offers an approach for evaluating it

separately, and, for example, deciding if the initial well grouping should be reconsidered. Comparisons based on the UTL are also useful when there is only one result available for comparison. However, if a conclusion is drawn that a downgradient well is not different from background based on a single downgradient result, it must be acknowledged that there is a significant risk that there actually is a difference that was not detected simply because of the paucity of downgradient data.

Statistical Methods

As discussed in the previous section, tests of central tendency provide a good indication of whether or not the overall distribution of site concentrations and background concentrations differ significantly. Thus, results from the tests of central tendency were used to determine whether or not an inorganic was a COPC for the Table 2 data. Results from the individual comparisons were used to provide additional information on the site to background comparisons and to help in evaluating the power of the test. Tests of central tendency and individuals comparisons are performed to answer two different questions, and thus the results of the two tests may differ. For example the means comparison may show that there is no statistically significant difference between the site and background soil concentrations, on the average, while there may be one or two individual results that are greater than the UTL for background. This may indicate that, as a whole, the site is not different from background, but that there may be localized hot spots on the site. In such a case, further sub-divisions of the area may be considered.

For the soil and groundwater data, the site and background data sets were evaluated with the Shapiro-Wilk test (Shapiro and Wilk, 1965) to determine if the data sets were normally distributed. Conclusions of the Shapiro-Wilk test were used to determine an appropriate method for comparing potential source area results to background results. An alpha level of 0.05 was used to determine significance for the test of normality. The parametric Student's t-test (Proc t-test, SAS/Stat, 1989) was used to compare central tendencies (i.e., compare means) if results of both site and background data sets were normally distributed. The non-parametric Wilcoxon

Rank-sum Test (Proc npar1way, SAS/Stat, 1989) was used to compare central tendencies if results of either site or background data sets were not normally distributed. The latter test compares the central tendency of the distributions of results by comparing the rank mean value for the source area to the background rank mean value. This is obtained by first combining the source area and background data sets for an analyte. The complete set of concentrations are then ordered. The rank of a value is its position (lowest = 1, second lowest = 2, etc.) in the combined data set. The average rank for the values corresponding to the background data can then be compared to the average rank for the source area. If the second is measurably larger than the first according to the non-parametric test, then one would conclude that concentrations tend to be higher in the source area than in the background area. Thus, the comparison can be made of the ranks of the data and it is not necessary for the background and source area results to follow the same distribution (as is the case for parametric procedures). An alpha level of 0.20 was used to determine significance for all tests of central tendency. Individual results from the source areas were compared to the UTLs given in the previous section that were calculated using the appropriate parametric or non-parametric method. This approach is drawn from USEPA's RCRA (1992) guidance for statistical analyses in groundwater monitoring and is applicable to the situation described in this appendix.

This concludes the approach used to initially identify COPCs for the Table 2 data based on EPA risk assessment guidance. Summary statistics were calculated for these chemicals for risk assessors and other data users. However, additional steps were taken to refine this list of COPCs. Toxicity screening was performed by the risk assessors and is discussed in Appendices C and H. A refined COPC list is presented in Appendix C.

3.5 Calculate Summary Statistics for COPCs

The next step in the data analysis performed for the SWMU groups investigated for this RFI was to calculate summary statistics for those analytes determined to be COPCs. As stated previously, for some of the SWMU groups, data evaluated for the quantitative risk assessments were combined from multiple sources (i.e., Table 2 data, 29 Sites data, Walk-Haydel data, and

Woodward-Clyde data). In these cases, data was combined from each of these sources before calculating summary statistics for the risk assessment. Measurements for non-detect results were estimated by substituting uniform random numbers between 0 and the minimum result for each SWMU group and for each matrix, analytical method, and analyte. Average site concentrations and the 95% upper confidence limit for the average were calculated for COPCs for each of the risk assessment SWMU groups and for each matrix. These summary statistics were used by the risk assessors to perform further screening of the COPCs as well as conduct the risk assessment.

4.0 RESULTS

This section presents the results of the data analyses performed to determine chemicals of potential concern (COPCs) for the risk assessment. Results are presented for each of the following steps in the COPC determination process:

- Review blank data and determine upper tolerance limits for blank concentration for the Table 2 data;
- Compare site results to blank data, and calculate frequency of occurrence for site chemicals for the Table 2 data; and
- Perform comparisons between site and background concentrations for naturally occurring chemicals (i.e., inorganic chemicals) for the Table 2 data.

Additionally, the summary statistics calculated for contaminants of potential concern are presented.

4.1 Review of Blank Data

Box plots showing the blank data for each analyte are given in the ITIR for Table 2 (Radian, 1994). Box plots are given for groundwater, surface soils, and subsurface soils data. All blank data reported were used to estimate UTLs to represent the upper limit of measurements

expected for the blank population. [See the ITIR (Radian, 1994) for a discussion of the validity of the blank results and associated site results].

The next section references tables that include the calculated UTLs for blanks for each matrix and analyte.

4.2 Frequencies of Occurrence for Site Data

The upper tolerance limit for blanks and then the frequency of occurrence were calculated for every analyte, for each of the matrices, and risk assessment SWMU groups for the Table 2 data. These tables are given in Attachments A.1, A.2, and A.3 for groundwater, surface soils, and subsurface soils, respectively. These attachments can be found at the back of this appendix. Tables 1-1 and 1-2 in Attachment A.1 give the results for the quantitative risk assessment SWMU groups for surface water and groundwater, respectively; Tables 2-1 and 2-2 in Attachment A.2 give the results for the quantitative and qualitative risk assessment SWMU groups, respectively, for surface soils; and Tables 3-1 and 3-2 in Attachment A.3 give the results for the quantitative and qualitative risk assessment SWMU groups, respectively, for subsurface soils. (Chemicals that had no measurable concentrations are not presented in these tables). In addition to the blank UTLs and the calculated frequencies of occurrence, these tables show the number of samples collected from each SWMU group and the range of site results (minimum and maximum). The tables also show whether or not the chemical was included as a COPC and a footnote describing the reason a chemical was or was not listed as a COPC. These tables only present the frequencies of occurrence used to determine COPCs for the Table 2 data. COPCs were determined for the 29 Sites Study data, the Walk-Haydel data, and the Woodward-Clyde data in previous studies. (Recall that the final COPC list was determined by combining COPCs from the different data sources for each SWMU group).

4.3 Comparison of Inorganic Site Concentrations to Naturally Occurring Background Levels

As discussed in Section 3.4, the fourth step in the COPC determination process performed for this RFI was to compare concentrations of naturally occurring chemicals to background concentrations to determine if there is any evidence of metals contamination on the site. These comparisons were only performed for the Table 2 data in order to determine the COPCs for the Table 2 data (COPCs were determined for the 29 Sites Study data, the Walk-Haydel data, and the Woodward-Clyde data in previous studies).

Section 4.3.1 below, gives tables of the background data that were used for these comparisons and Section 4.3.2 gives the results of these comparisons.

4.3.1 Characterization of Background Data

Tables C1-5 and C1-6 give summary statistics (e.g., minimum, maximum, mean) for the groundwater and soils background data, respectively, for each metal. In addition to summary statistics, Tables C1-5 and C1-6 also show the number of samples collected and give information on the upper tolerance limits (UTLs) that were calculated for background. (The UTLs for background should not be confused with the UTLs for blanks. Although both sets of UTLs were calculated using the same methods, they represent different things. The blank UTL was used to determine frequencies of occurrence for site concentrations. The background UTL is being used for the metals comparisons of site to background concentrations.) The type of UTL calculated (normal or non-parametric) and the coverage for the UTL is also given in the Tables.

Tables C1-5 and C1-6 only present those metals for which Table 2 site data existed. A complete list of summary statistics for all of the background metals can be found in Appendix B.

Table C1-5
Summary Statistics for Background Groundwater [a]

Analyte	Analytical Method	Dissolved or Total Metal	Summary Statistics (mg/L)[b]							Upper Tolerance Limit [b]		
			N	Minimum	Maximum	Median	Mean	Standard Deviation	95% UCL for Mean	Tolerance Type	Coverage (%)	Upper Tolerance Limit (mg/L)
Beryllium	SW6010	Dissolved	73	-0.00072	0.0013	0.000	0.0001	0.0004	0.00021	NP	96.0	0.0013
		Total	14	-0.00021	0.0034	0.001	0.001	0.001	0.001	Normal	95.0	0.0038
Lead	SW7421	Dissolved	66	-0.018	0.0035	-0.001	-0.001	0.003	-0.0005	NP	95.6	0.0035
		Total	13	-0.010	0.012	0.000	0.001	0.007	0.005	Normal	95.0	0.020
Zinc	SW6010	Dissolved	14	0.011	0.028	0.019	0.019	0.004	0.021	Normal	95.0	0.030
		Total	14	0.012	0.160	0.031	0.047	0.040	0.066	NP	80.7	0.160

[a] *Base-wide Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993).
[b] Uncensored data used to calculate summary statistics and upper tolerance limits.
N = Number of sample results.
NP = Non-parametric upper tolerance limit.
UCL = One-sided 95% upper confidence limit for the mean.

Table C1-6
Summary Statistics for Background Soils [a]

Analyte	Analytical Method	Summary Stistics[b] (mg/kg)							Upper Tolerance Limit[b]		
		N	Minimum	Maximum	Median	Mean	Standard Deviaton	95% UCL for Mean	Tolerance Type	Coverage (%)	Upper Tolerance Limit (mg/kg)
Antimony	SW6010	58	-9.298	7.841	-0.211	-0.677	3.933	0.186	Normal	95.0	7.284
Arsenic	SW6010	60	-9.212	8.238	0.152	0.116	3.355	0.840	Normal	95.0	6.883
Barium	SW6010	9	14.000	65.000	30.000	35.778	16.029	45.714	Normal	95.0	84.363
Beryllium	SW6010	9	-0.041	0.400	0.110	0.132	0.115	0.204	NP	71.7	0.400
Cadmium	SW6010	58	-0.376	0.560	0.004	0.015	0.197	0.058	NP	95.0	0.560
Chromium	SW6010	9	0.360	4.800	2.200	2.340	1.407	3.212	Normal	95.0	6.605
Cobalt	SW6010	9	0.260	1.700	0.760	0.916	0.518	1.237	Normal	95.0	2.485
Copper	SW6010	9	1.800	3.800	3.100	2.922	0.634	3.315	Normal	95.0	4.844
Lead	SW7421	7	1.100	8.000	2.100	2.686	2.402	4.450	NP	65.2	8.000
Mercury	SW7471	37	-0.064	-0.008	-0.025	-0.027	0.012	-0.024	Normal	95.0	-0.001
Selenium	SW6010	62	-12.000	12.910	-0.965	-0.461	5.468	0.699	Normal	95.0	10.531
Silver	SW6010	59	-1.513	1.156	-0.180	-0.201	0.463	-0.100	Normal	95.0	0.734
Vanadium	SW6010	9	1.300	11.000	6.700	6.633	2.912	8.438	Normal	95.0	15.460
Zinc	SW6010	9	0.320	15.000	5.600	6.724	4.461	9.490	Normal	95.0	20.246

[a] *Base-Wise Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993).
[b] Uncensored data used to calculatsummary statistics and upper tolerance limits.
N = Number of sample results.
NP = Non-parametric upper tolerance limit.
UCL = One-sided 95% upper confidence limit for the mean.

4.3.2 Means and Individuals Comparisons of Inorganic Site Concentrations to Background

Tables with the results of the means and individuals comparisons for groundwater, surface soils, and subsurface soils are given in Attachments A.1, A.2, and A.3, respectively (located in at the back of this appendix). Tables 1-3 and 1-4 in Attachment A.1 give the results for the risk assessment areas for surface water and groundwater, respectively; Tables 2-3 and 2-4 in Attachment A.2 give the results for surface soils for the quantitative and qualitative SWMU groups, respectively; and Tables 3-3 through 3-4 in Attachment A.3 give the results for subsurface soils for the quantitative and qualitative SWMU groups, respectively.

The tables given in Attachments A.1, A.2, and A.3 show the p-values for the tests of central tendency, the conclusion (S = statistically significant at the 0.20 level, NS = not statistically significant at the 0.20 level), the power of the test, and the type of statistical test performed (i.e., Student's t-Test or Wilcoxon test). The power of the test represents the probability of detecting a difference of 40% between the background mean and the site mean at the 80% confidence level. The tables given in Attachments A.1, A.2, and A.3 also show the background UTLs and the number of site results exceeding the UTLs. The last two columns of these tables indicate whether or not it was listed as a contaminant of potential concern (COPC) for the Table 2 RFI data and a reason for this conclusion.

4.4 Calculate Summary Statistics for COPCs

The next step in the data analysis was to calculate summary statistics for those analytes determined to be contaminants of potential concern (COPCs). Organic analytes that had a frequency of occurrence that was greater than 5% for a given SWMU group were initially identified as contaminants of potential concern (COPCs) for the Table 2 data. Inorganic analytes that had a frequency of occurrence greater than 5% and had average concentrations that were significantly greater than background were also initially identified as COPCs for the Table 2 data.

For quantitative risk assessment SWMU groups that consisted of multiple data sources (e.g., Table 2 data, 29 Sites data, Walk-Haydel data, Woodward-Clyde data) a chemical was listed as a COPC overall, if it was listed as a COPC for any one of the data sources.

The following summary statistics were calculated for all analytes that were determined to be COPCs: minimum, maximum, mean, and 95% upper confidence limit for the mean. For censored data, proxy concentrations were estimated for values reported as ND by substituting a random uniform number between zero and the minimum result.

Tables 1-5 and 1-6 in Attachment A.1 give summary statistics for COPCs for the quantitative risk assessment SWMU groups for surface water and groundwater, respectively; Tables 2-5 and 2-6 in Attachment A.2 give summary statistics for COPCs for the quantitative and qualitative risk assessment SWMU groups for surface soils; and Tables 3-5 and 3-6 in Attachment A.3 give summary statistics for the quantitative and qualitative risk assessment SWMU groups for subsurface soils. These attachments are located in the back of this appendix.

5.0 REFERENCES

Gilbert, Richard O., 1987. *Statistical Methods for Environmental Pollution Monitoring*, Van Nostrand Reinhold Company.

Helsel, D.R. "Less than Obvious. Statistical Treatment of Data Below the Detection Limit." *Environ. Sci. Technol.* Vol 24, No. 12, 1990.

Lambert, D., B. Peterson, and I. Terpenning. "Nondetects, Detection Limits, and the Probability of Detection." *Journal of the American Statistical Association*. Volume 86, Number 414, June 1991.

Newman, M.C., P.M. Dixon, B.B. Looney, and J.E. Pinder, III. "Estimating the Mean and Variance for Environmental Samples with Below Detection Limit Observations." *Water Resources Bulletin*. American Water Resources Association. Vol. 25, No. 4, August, 1989.

Radian Corporation, 1992(a). *Remedial Investigation (RI) Report. Investigation, Study, and Recommendation for 29 Waste Sites*. US Army Corps of Engineers, Omaha District, Omaha, Nebraska.

Radian Corporation, 1992(b). *Risk Assessment (RA) Report for the Remedial Investigation. Investigation, Study, and Recommendation for 29 Waste Sites*. US Army Corps of Engineers, Omaha District, Omaha, Nebraska.

Radian Corporation, 1992(c). *Sampling and Quality Control Summary Report for the Remedial Investigation. Investigation, Study, and Recommendation for 29 Waste-Sites*. U.S. Army Corps of Engineers, Omaha District, Omaha, Nebraska.

Radian Corporation, 1993(a). *Base-Wide Background Study - Sewage Lagoons and Lakes Investigation, Holloman Air Force Base*. Prepared for 49 CES/CEV and HQ ACC/DEVC. US Army Corps of Engineers, Omaha District, Omaha, Nebraska.

Radian Corporation, 1993(b). *RCRA Facility Investigation - Holloman Air Force Base, New Mexico, Table 2 Phase I Work Plan*. March 1993.

SAS Institute Inc., 1989. SAS/STAT *User's Guide, Version 6, Fourth Edition, Volume 2*, Cary, NC. 846 pages.

Shapiro, S. S., and M. B. Wilk, 1965. "An Analysis of Variance Test for Normality (complete samples)," *Biometrika*, 52, 591-611.

U.S. EPA, 1989. *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A),* Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C.

U.S. EPA, 1992. *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities: Addendum to Interim Final Guidance*, Office of Solid Waste, Washington D.C.

Walk, Haydel, and Associates, 1989. *Installation Restoration Program Remedial Investigation Report for Holloman AFB, New Mexico*.

Attachment A.1: Groundwater Summary Tables for COPCs

Table 1 09:51 Thursday, June 23, 1994

Quantitative Risk Assessments - Surface Water Conclusions

SWMUs Group=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Dissolved or Total Metals	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW6010	Beryllium	D	mg/L	2	-0.001	-0.000	0.0	0.000	No	e
SW6010	Beryllium	T	mg/L	2	-0.001	-0.000	0.0	0.000	No	e
SW7421	Lead	D	mg/L	2	0.005	0.015	100.0	-0.000	Yes	d
SW7421	Lead	T	mg/L	2	0.006	0.019	100.0	-0.000	Yes	d
SW6010	Zinc	D	mg/L	2	0.014	0.025	100.0	0.005	Yes	d
SW6010	Zinc	T	mg/L	2	0.001	0.009	50.0	0.005	Yes	d

N = 6

SWMUs Group=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Dissolved or Total Metals	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
E130.2	Hardness	T	mg/L	2	24600.000	42400.000	100.0	0.000	Yes	d.

N = 1

NC = Not calculated.
ND = Concentration not measurable.
UTL = Upper tolerance limit.

1. = Frequency of occurrence is the percent of results greater than the UTL for blanks. If the UTL for blanks was not calculated, then the frequency of occurrence is the percent of measurable results.
2. = Upper tolerance limit for the 95th percentile with 95% confidence.

a. No measurable results on site
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).

c. Average metal concentration on site not significatnly greater than average background metal concentration (alpha = 0.20).

d. Frequency of occurrence >= 5%.

e. Frequency of occurrence < 5%.

f. Frequency of measurable results >= 5% (No UTL for blanks calculated).

g. Frequency of measurable results < 5% (No UTL for blanks calculated).

Table 1-_ 12:01 Tuesday, June 21, 1994

Quantitative Risk Assessments - Groundwater Conclusions

---------- SWMUs Group=118/132/AOC-A METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8020	1,2-Dichlorobenzene	mg/L	4	ND	0.000	25.0	NC	Yes	f.
SW8020	1,3-Dichlorobenzene	mg/L	4	ND	0.000	75.0	NC	Yes	f.
SW8020	1,4-Dichlorobenzene	mg/L	4	ND	0.000	75.0	NC	Yes	f.
SW8080	4,4'-DDD	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	4,4'-DDE	mg/L	7	ND	0.000	14.3	NC	Yes	f.
SW8080	4,4'-DDT	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	Aldrin	mg/L	7	ND	ND	0.0	NC	No	a.
SW8020	Benzene	mg/L	4	0.000	0.000	75.0	0.000	Yes	d.
SW8080	Chlordane	mg/L	7	ND	ND	0.0	NC	No	a.
SW8020	Chlorobenzene	mg/L	4	0.000	0.019	100.0	NC	Yes	f.
SW8080	Dieldrin	mg/L	7	ND	0.000	14.3	NC	Yes	f.
SW8080	Endosulfan I	mg/L	7	ND	0.000	28.6	NC	Yes	f.
SW8080	Endosulfan II	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/L	7	ND	0.000	28.6	0.000	Yes	d.
SW8080	Endrin	mg/L	7	ND	0.000	14.3	NC	Yes	f.
SW8080	Endrin Aldehyde	mg/L	7	ND	0.000	85.7	NC	Yes	f.
SW8020	Ethyl benzene	mg/L	4	0.000	0.000	50.0	0.000	Yes	d.
SW8080	Heptachlor	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor epoxide	mg/L	7	ND	0.000	57.1	NC	Yes	f.
SW8080	Methoxychlor	mg/L	7	ND	ND	0.0	NC	No	a.
SW8020	Toluene	mg/L	4	0.000	0.000	0.0	0.000	No	e.
SW8020	Total xylenes	mg/L	4	ND	0.000	0.0	0.000	No	e.
SW8080	Toxaphene	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	beta-BHC	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/L	7	ND	ND	0.0	NC	No	a.
SW8080	gamma-BHC	mg/L	7	ND	0.000	71.4	NC	Yes	f.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

N = 27

SWMUs Group=129/178 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW7421	Lead	mg/L	4	-0.000	0.002	75.0	-0.000	Yes	b.
E353.1	Nitrate-Nitrite as N	mg/L	4	0.345	31.900	100.0	-0.005	Yes	d.

N = 2

SWMUs Group=129/178 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8270	1,2,4-Trichlorobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	1,2-Dichlorobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	1,3-Dichlorobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	1,4-Dichlorobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2,4,5-Trichlorophenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2,4,6-Trichlorophenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dichlorophenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dimethylphenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dinitrophenol	mg/L	4	ND	ND	0.0	NC	No	a.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

SWMUs Group=129/178 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8270	2,4-Dinitrotoluene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2,6-Dinitrotoluene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2-Chloronaphthalene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2-Chlorophenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2-Methylnaphthalene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2-Methylphenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2-Nitroaniline	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	2-Nitrophenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	3,3'-Dichlorobenzidine	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	3-Nitroaniline	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4,6-Dinitro-2-methylphenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4-Bromophenyl phenyl ether	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4-Chloro-3-methylphenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4-Chlorophenyl phenyl ether	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4-Methylphenol/3-Methylphenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4-Nitroaniline	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	4-Nitrophenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Acenaphthene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Acetophenone	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Aniline	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Anthracene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzo(a)anthracene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzo(a)pyrene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzo(b)fluoranthene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzo(g,h,i)perylene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzo(k)fluoranthene	mg/L	4	ND	ND	0.0	NC	No	a.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

SWMUs Group=129/178 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8270	Benzoic acid	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzyl alcohol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Butylbenzylphthalate	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Chrysene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Di-n-octylphthalate	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Dibenz(a,h)anthracene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Dibenzofuran	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Dibutylphthalate	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Diethylphthalate	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Dimethylphthalate	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Diphenylamine	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Fluoranthene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Fluorene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Hexachlorobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Hexachlorobutadiene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Hexachlorocyclopentadiene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Hexachloroethane	mg/L	4	ND	ND	0.0	NC	No	a.
E418.1	Hydrocarbons	mg/L	4	-0.140	-0.088	0.0	-0.034	No	e.
SW8270	Indene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Indeno(1,2,3-cd)pyrene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Isophorone	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	N-Nitroso-di-n-propylamine	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	N-Nitrosodimethylamine	mg/L	3	ND	ND	0.0	NC	No	a.
SW8270	Naphthalene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Nitrobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Pentachlorophenol	mg/L	4	ND	ND	0.0	NC	No	a.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

SWMUs Group=129/178 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8270	Phenanthrene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Phenol	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Pyrene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Chloroethoxy)methane	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Chloroethyl)ether	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Chloroisopropyl)ether	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Ethylhexyl)phthalate	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	p-Chloroaniline	mg/L	4	ND	ND	0.0	NC	No	a.

N = 69

SWMUs Group=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8010	1,1,1,2-Tetrachloroethane	mg/L	4	ND	ND	0.0	NC	No	a.
SW8010	1,1,1-Trichloroethane	mg/L	8	ND	0.418	50.0	NC	Yes	f.
SW8010	1,1,2,2-Tetrachloroethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,1,2-Trichloroethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,1-Dichloroethane	mg/L	8	ND	0.065	12.5	NC	Yes	f.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

SWMUs Group=165/177/179/181 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8010	1,1-Dichloroethene	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,2,3-Trichloropropane	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	1,2,4-Trichlorobenzene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	1,2-Dichlorobenzene	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,2-Dichloroethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,2-Dichloropropane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,3-Dichlorobenzene	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	1,4-Dichlorobenzene	mg/L	8	ND	ND	0.0	NC	No	a.
SW8270	2,4,5-Trichlorophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2,4,6-Trichlorophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dichlorophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dimethylphenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dinitrophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2,4-Dinitrotoluene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2,6-Dinitrotoluene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	2-Chloroethyl vinyl ether	mg/L	8	ND	ND	0.0	NC	No	a.
SW8270	2-Chloronaphthalene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2-Chlorophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2-Methylnaphthalene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2-Methylphenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2-Nitroaniline	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	2-Nitrophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	3,3'-Dichlorobenzidine	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	3-Nitroaniline	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	4,6-Dinitro-2-methylphenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	4-Bromophenyl phenyl ether	mg/L	2	ND	ND	0.0	NC	No	a.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

SWMUs Group=165/177/179/181 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8270	4-Chloro-3-methylphenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	4-Chlorophenyl phenyl ether	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	4-Methylphenol/3-Methylphenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	4-Nitroaniline	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	4-Nitrophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Acenaphthene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Acetophenone	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Aniline	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Anthracene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Benzo(a)anthracene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Benzo(a)pyrene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Benzo(b)fluoranthene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Benzo(g,h,i)perylene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Benzo(k)fluoranthene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Benzoic acid	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Benzyl Chloride	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Benzyl alcohol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Bromobenzene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8010	Bromodichloromethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	Bromoform	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	Bromomethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8270	Butylbenzylphthalate	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Carbon tetrachloride	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	Chlorobenzene	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	Chloroethane	mg/L	8	ND	0.000	12.5	NC	Yes	f.
SW8010	Chloroform	mg/L	8	ND	ND	0.0	NC	No	a.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

---------- SWMUs Group=165/177/179/181 METHOD=Organics ----------
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8010	Chloromethane	mg/L	8	ND	0.002	25.0	NC	Yes	f.
SW8270	Chrysene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Di-n-octylphthalate	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Dibenz(a,h)anthracene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Dibenzofuran	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Dibromochloromethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	Dibromomethane	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Dibutylphthalate	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Dichlorodifluoromethane	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	Diethylphthalate	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Dimethylphthalate	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Diphenylamine	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Fluoranthene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Fluorene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Hexachlorobenzene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Hexachlorobutadiene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Hexachlorocyclopentadiene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Hexachloroethane	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Indene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Indeno(1,2,3-cd)pyrene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Isophorone	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Methylene Chloride	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	N-Nitroso-di-n-propylamine	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	N-Nitrosodimethylamine	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Naphthalene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Nitrobenzene	mg/L	2	ND	ND	0.0	NC	No	a.

Table 1-2
Quantitative Risk Assessments - Groundwater Conclusions

---------- SWMUs Group=165/177/179/181 METHOD=Organics ----------
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(1)	UTL for Blank Data(2)	Chemical of Potential Concern?	Footnote
SW8270	Pentachlorophenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Phenanthrene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Phenol	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	Pyrene	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	Tetrachloroethene	mg/L	8	ND	0.002	25.0	NC	Yes	f.
SW8010	Trichloroethene	mg/L	8	ND	2.730	87.5	NC	Yes	f.
SW8010	Trichlorofluoromethane	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	Vinyl Chloride	mg/L	8	ND	0.004	12.5	0.000	Yes	d.
SW8270	bis(2-Chloroethoxy)methane	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Chloroethyl)ether	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Chloroisopropyl)ether	mg/L	2	ND	ND	0.0	NC	No	a.
SW8270	bis(2-Ethylhexyl)phthalate	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	cis-1,3-Dichloropropene	mg/L	4	ND	ND	0.0	NC	No	a.
SW8270	p-Chloroaniline	mg/L	2	ND	ND	0.0	NC	No	a.
SW8010	trans-1,2-Dichloroethene	mg/L	8	ND	ND	0.0	NC	No	a.
SW8010	trans-1,3-Dichloropropene	mg/L	8	ND	0.000	12.5	NC	Yes	f.

N = 99

NC = Not calculated.
ND = Concentration not measurable.
UTL = Upper tolerance limit.

1. = Frequency of occurrence is the percent of results greater than the UTL for blanks. If the UTL for blanks was not calculated, then the frequency of occurrence is the percent of measurable results.
2. = Upper tolerance limit for the 95th percentile with 95% confidence.

a. No measurable results on site

b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).

c. Average metal concentration on site not significatnly greater than average background metal concentration (alpha = 0.20).

d. Frequency of occurrence >= 5%.

e. Frequency of occurrence < 5%.

f. Frequency of measurable results >= 5% (No UTL for blanks calculated).

g. Frequency of measurable results < 5% (No UTL for blanks calculated).

Table 1-3

Quantitative Risk Assessments - Surface Water Comparisons to Background

RISK_GRP=165/177/179/181

Analytical Method	Analyte	Dissolved or Total Metals	Test Type	Site N	Site Detects	Blank UTL (mg/L)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/L)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Beryllium	D	Wilcoxon	2	2	0.00012	0	0.9382	NS	0.1691	0.0013	0	No	e
SW6010	Beryllium	T	Wilcoxon	2	2	0.00012	0	0.9841	NS	0.1727	0.0037824	0	No	e
SW7421	Lead	D	Wilcoxon	2	2	-0.00001	2	0.0789	S	0.1625	0.0035	2	Yes	d
SW7421	Lead	T	Wilcoxon	2	2	-0.00001	2	0.0051	S	0.1544	0.0198729	0	Yes	d
SW6010	Zinc	D	Wilcoxon	2	2	0.00497	2	0.8802	NS	0.1730	0.029682	0	Yes	d
SW6010	Zinc	T	Wilcoxon	2	2	0.00497	1	0.9583	NS	0.1821	0.16	0	Yes	d

N = 6

UTL = Upper tolerance limit for the 95th percentile at the 95% confidence level.
NC = Not calculated.
NS = Not statistically significant at the 0.20 significance level.
S = Statistically significant at the 0.20 significance level.

1. = Test conducted at a 0.20 significance level.
2. = Power is the probability of detecting a difference of 40% between the site and background mean at the 0.20 significance level.

a. No measureable results on site.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (no UTL for blanks calculated).
g. Frequency of measureable results < 5% (no UTL for blanks calculated).

Table 1-4

Quantitative Risk Assessments - Groundwater Comparisons to Background

RISK_GRP=129/178

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/L)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/L)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7421	Lead	Wilcoxon	4	4	-0.00001	3	0.1319	S	0.1606	0.0198729	0	Yes	b.
E353.1	Nitrate-Nitrite as N	Wilcoxon	4	4	-0.0054	4	NC	NC	NC	NC	NC	Yes	d.

N = 2

UTL = Upper tolerance limit for the 95th percentile at the 95% confidence level.
NC = Not calculated.
NS = Not statistically significant at the 0.20 significance level.
S = Statistically significant at the 0.20 significance level.

1. = Test conducted at a 0.20 significance level.
2. = Power is the probability of detecting a difference of 40% between the site and background mean at the 0.20 significance level.

a. No measureable results on site.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (no UTL for blanks calculated).
g. Frequency of measureable results < 5% (no UTL for blanks calculated).

Table 1-5

Quantitative Risk Assessments - Surface Water COPCs

RISK_GRP=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7421	Lead	D	mg/L	2	2	0.00544	0.01500	0.01022	0.04040
SW7421	Lead	T	mg/L	2	2	0.00626	0.01900	0.01263	0.05285
SW6010	Zinc	D	mg/L	2	2	0.01380	0.02450	0.01915	0.05293
SW6010	Zinc	T	mg/L	2	2	0.00052	0.00918	0.00485	0.03219

N = 4

RISK_GRP=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
E130.2	Hardness	T	mg/L	2	2	24600.00	42400.00	33500.00	89692.39

N = 1

ND = Not detected.

NC = Not calculated. UCL cannot be calculated with only one site result.

a. Random uniform numbers between zero and the minimum result substituted for non-detected values.

b. One-sided 95% upper confidence limit for the mean.

Table 1-6
Quantitative Risk Assessments - Groundwater COPCs

RISK_GRP=118/132/AOC-A METHOD=Organics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1,1-Trichloroethane	T	mg/L	4	4	0.00500	0.02000	0.00875	0.01758
SW8240	1,1-Dichloroethane	T	mg/L	4	4	0.00230	0.00500	0.00433	0.00591
SW8020	1,2-Dichlorobenzene	T	mg/L	4	1	ND	0.00002	0.00002	0.00002
SW8020	1,3-Dichlorobenzene	T	mg/L	4	3	ND	0.00006	0.00004	0.00006
SW8020	1,4-Dichlorobenzene	T	mg/L	4	3	ND	0.00039	0.00014	0.00034
SW8080	4,4'-DDE	T	mg/L	11	5	ND	0.00004	0.00001	0.00001
SW8080	4,4'-DDT	T	mg/L	11	4	ND	0.00002	0.00001	0.00002
SW8020	Benzene	T	mg/L	4	4	0.00007	0.00039	0.00022	0.00037
SW8020	Chlorobenzene	T	mg/L	4	4	0.00024	0.01900	0.00614	0.01645
SW8240	Chlorobenzene	T	mg/L	4	4	0.00130	0.06300	0.01858	0.05348
SW8240	Chloroform	T	mg/L	4	4	0.00130	0.00500	0.00255	0.00452
SW8080	Dieldrin	T	mg/L	11	5	ND	0.00015	0.00003	0.00006
SW8080	Endosulfan I	T	mg/L	11	6	ND	0.00003	0.00001	0.00002
SW8080	Endosulfan Sulfate	T	mg/L	11	6	ND	0.00015	0.00005	0.00007
SW8080	Endrin	T	mg/L	11	5	ND	0.00028	0.00003	0.00008
SW8080	Endrin Aldehyde	T	mg/L	11	10	ND	0.00026	0.00007	0.00012
SW8020	Ethyl benzene	T	mg/L	4	4	0.00002	0.00007	0.00005	0.00008
SW8080	Heptachlor epoxide	T	mg/L	11	8	ND	0.00020	0.00004	0.00007
SW8140	Methyl parathion	T	mg/L	4	4	0.00002	0.00003	0.00003	0.00003
SW8240	Methylene Chloride	T	mg/L	4	4	0.00500	0.01800	0.00973	0.01670
SW8240	Trichloroethene	T	mg/L	4	4	0.00420	0.02300	0.01258	0.02230
SW8080	alpha-BHC	T	mg/L	11	4	ND	0.00150	0.00014	0.00039
SW8080	gamma-BHC	T	mg/L	11	9	ND	0.00100	0.00018	0.00034

N = 23

Table 1-6
Quantitative Risk Assessments - Groundwater COPCs

RISK_GRP=129/178 METHOD=Inorganics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Beryllium	T	mg/L	5	5	0.00200	0.00450	0.00370	0.00463
SW7421	Lead	T	mg/L	9	9	-0.00042	0.01700	0.00503	0.00836
SW7740	Selenium	T	mg/L	5	5	0.01100	0.01700	0.01420	0.01685

N = 3

RISK_GRP=129/178 METHOD=Organics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Bromodichloromethane	T	mg/L	5	5	0.00150	0.00500	0.00430	0.00579
SW8240	Chloroform	T	mg/L	5	5	0.00130	0.00500	0.00270	0.00412
SW8240	Toluene	T	mg/L	5	5	0.00028	0.00500	0.00312	0.00557
SW8240	Trichloroethene	T	mg/L	5	5	0.00190	0.02400	0.00818	0.01671

N = 4

Table 1-6
Quantitative Risk Assessments - Groundwater COPCs

RISK_GRP=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Beryllium	T	mg/L	4	4	0.00200	0.00290	0.00235	0.00286
SW7421	Lead	T	mg/L	4	4	0.00300	0.01900	0.01020	0.01811
SW6010	Zinc	T	mg/L	4	4	0.02000	0.07100	0.04325	0.07285

N = 3

RISK_GRP=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8010	1,1,1-Trichloroethane	T	mg/L	8	4	ND	0.41800	0.05333	0.15203
SW8240	1,1,1-Trichloroethane	T	mg/L	4	4	0.00180	0.24000	0.06295	0.20185
SW8010	1,1-Dichloroethane	T	mg/L	8	1	ND	0.06540	0.03389	0.04726
SW8240	1,1-Dichloroethane	T	mg/L	4	4	0.00059	0.00500	0.00390	0.00649
SW8240	1,1-Dichloroethene	T	mg/L	4	4	0.00500	0.00960	0.00615	0.00886
SW8240	Acetone	T	mg/L	4	4	0.00350	0.10000	0.05688	0.11629
SW8240	Carbon tetrachloride	T	mg/L	4	4	0.00500	0.00580	0.00520	0.00567
SW8010	Chloroethane	T	mg/L	8	1	ND	0.00044	0.00027	0.00035
SW8240	Chloroform	T	mg/L	4	4	0.00035	0.00500	0.00207	0.00453
SW8010	Chloromethane	T	mg/L	8	2	ND	0.00238	0.00066	0.00116
SW8240	Chloromethane	T	mg/L	4	4	0.00072	0.01000	0.00768	0.01314
SW8010	Tetrachloroethene	T	mg/L	8	2	ND	0.00219	0.00048	0.00094
SW8240	Tetrachloroethene	T	mg/L	4	4	0.00019	0.00500	0.00167	0.00432

Table 1-6
Quantitative Risk Assessments - Groundwater COPCs

RISK_GRP=165/177/179/181 METHOD=Organics
(continued)

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8010	Trichloroethene	T	mg/L	8	7	ND	2.73000	0.49597	1.11657
SW8240	Trichloroethene	T	mg/L	4	4	0.00025	0.05900	0.01674	0.04997
SW8010	Vinyl Chloride	T	mg/L	8	1	ND	0.00383	0.00281	0.00327
SW8010	trans-1,3-Dichloropropene	T	mg/L	8	1	ND	0.00049	0.00024	0.00035

N = 17

RISK_GRP=54/55/21/22/123 METHOD=Inorganics

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Arsenic	T	mg/L	4	1	ND	0.14900	0.05935	0.13235
SW6010	Barium	T	mg/L	4	4	0.01800	1.03300	0.44700	0.94634
SW6010	Beryllium	T	mg/L	4	3	ND	0.01500	0.01010	0.01647
SW6010	Chromium	T	mg/L	4	3	ND	0.12800	0.06373	0.11941
SW6010	Lead	T	mg/L	4	3	ND	0.08700	0.04436	0.08096

N = 5

Table 1-6

Quantitative Risk Assessments - Groundwater COPCs

---------- RISK_GRP=54/55/21/22/123 METHOD=Organics ----------

Analytical Method	Analyte	Dis-solved or Total	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	4-Methyl-2-Pentanone(MIBK)	T	mg/L	8	1	ND	0.03700	0.02606	0.03349
SW8240	Benzene	T	mg/L	11	2	ND	5.00000	0.87416	1.62992
SW8240	Ethyl benzene	T	mg/L	11	1	ND	12.40000	6.34554	8.65612
SW8270	Naphthalene	T	mg/L	3	1	ND	0.01100	0.00824	0.01279
SW8240	Tetrachloroethene	T	mg/L	8	1	ND	0.03900	0.02268	0.03153
SW8240	Toluene	T	mg/L	11	2	ND	0.70000	0.06683	0.18160
SW8240	Xylene (total)	T	mg/L	11	2	ND	1.40000	0.17337	0.39660

N = 7

ND = Not detected.

NC = Not calculated. UCL cannot be calculated with only one site result.

a. Random uniform numbers between zero and the minimum result substituted for non-detected values.

b. One-sided 95% upper confidence limit for the mean.

Attachment A.2: Surface Soil Summary Tables for COPCs

Table 2-1

Quantitative Risk Assessments - Surface Soil Conclusions

---------- SWMUs Group=118/132/AOC-A METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8150	2,4,5-T	mg/kg	1	0.011	0.011	100.0	0.009	Yes	d.
SW8150	2,4,5-TP (Silvex)	mg/kg	1	0.007	0.007	100.0	NC	Yes	f.
SW8080	4,4'-DDD	mg/kg	1	0.010	0.010	100.0	0.000	Yes	d.
SW8240	Acetone	mg/kg	9	0.015	0.647	66.7	0.059	Yes	d.
SW8080	Aldrin	mg/kg	1	0.009	0.009	100.0	NC	Yes	f.
SW8140	Chlorpyrifos (Dursban)	mg/kg	1	0.531	0.531	100.0	0.002	Yes	d.
SW8140	Coumaphos	mg/kg	1	0.002	0.002	100.0	NC	Yes	f.
SW8140	Diazinon	mg/kg	1	0.078	0.078	100.0	0.003	Yes	d.
SW8140	Dichlorvos	mg/kg	1	0.049	0.049	100.0	NC	Yes	f.
SW8080	Dieldrin	mg/kg	1	0.009	0.009	100.0	NC	Yes	f.
SW8150	Dinoseb	mg/kg	1	0.023	0.023	100.0	0.008	Yes	d.
SW8080	Endrin	mg/kg	1	0.008	0.008	100.0	NC	Yes	f.
SW8080	Endrin Aldehyde	mg/kg	1	0.004	0.004	100.0	NC	Yes	f.
SW8140	Fenthion	mg/kg	1	0.012	0.012	100.0	NC	Yes	f.
SW8080	Heptachlor epoxide	mg/kg	1	0.386	0.386	100.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	9	8.350	133.000	44.4	16.540	Yes	d.
SW8150	MCPA	mg/kg	1	21.500	21.500	100.0	NC	Yes	f.
SW8140	Merphos B	mg/kg	1	0.006	0.006	100.0	NC	Yes	f.
SW8140	Methyl azinphos	mg/kg	1	0.005	0.005	100.0	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	9	ND	0.003	11.1	0.002	Yes	d.
SW8140	Mevinphos	mg/kg	1	0.004	0.004	100.0	NC	Yes	f.
SW8080	PCB-1260	mg/kg	8	ND	0.581	87.5	NC	Yes	f.
SW8140	Sulprofos (Bolstar)	mg/kg	1	0.002	0.002	100.0	NC	Yes	f.
SW8080	alpha-BHC	mg/kg	1	0.005	0.005	100.0	NC	Yes	f.
SW8080	delta-BHC	mg/kg	1	0.014	0.014	100.0	0.001	Yes	d.
SW8080	gamma-BHC	mg/kg	1	0.007	0.007	100.0	0.000	Yes	d.

Table 2-1
Quantitative Risk Assessments - Surface Soil Conclusions

N = 26

SWMUs Group=129/178 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7421	Lead	mg/kg	32	2.060	1480.000	100.0	0.271	Yes	b.

N = 1

SWMUs Group=129/178 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	Aniline	ug/kg	32	ND	251.000	6.3	NC	Yes	f.
SW8270	Anthracene	ug/kg	32	ND	15.900	9.4	NC	Yes	f.
SW8240	Benzene	mg/kg	19	ND	0.001	5.3	NC	Yes	f.
SW8270	Benzo(a)anthracene	ug/kg	32	ND	122.000	34.4	NC	Yes	f.
SW8270	Benzo(a)pyrene	ug/kg	32	ND	123.000	25.0	NC	Yes	f.
SW8270	Benzo(b)fluoranthene	ug/kg	32	ND	267.000	25.0	NC	Yes	f.
SW8270	Benzo(g,h,i)perylene	ug/kg	32	ND	77.800	12.5	NC	Yes	f.
SW8270	Benzo(k)fluoranthene	ug/kg	32	ND	267.000	25.0	NC	Yes	f.
SW8270	Chrysene	ug/kg	32	ND	221.000	34.4	NC	Yes	f.
SW8270	Dibutylphthalate	ug/kg	32	ND	187.000	6.3	13.300	Yes	d.

Table 2-1
Quantitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=129/178 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Ethyl benzene	mg/kg	19	ND	0.001	5.3	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	32	ND	234.000	31.3	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	32	-4.290	1430.000	65.6	16.540	Yes	d.
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	32	ND	64.000	6.3	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	32	ND	83.800	21.9	NC	Yes	f.
SW8270	Pyrene	ug/kg	32	ND	230.000	31.3	NC	Yes	f.
SW8240	Toluene	mg/kg	19	ND	0.006	68.4	0.000	Yes	d.
SW8240	Trichloroethene	mg/kg	19	ND	0.003	5.3	NC	Yes	f.

N = 18

SWMUs Group=164 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	8	-0.175	3.170	87.5	0.069	Yes	b.
SW6010	Cadmium	mg/kg	8	-0.107	0.293	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	8	3.730	6.990	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	8	1.710	14.100	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	8	1.910	2.580	100.0	0.204	Yes	b.

N = 5

Table 2-1

Quantitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=164 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1-Dichloroethene	mg/kg	5	ND	0.630	40.0	NC	Yes	f.
SW8240	Benzene	mg/kg	5	ND	0.276	40.0	NC	Yes	f.
SW8240	Ethyl benzene	mg/kg	5	ND	54.700	60.0	NC	Yes	f.
SW8240	Toluene	mg/kg	5	ND	41.400	60.0	0.000	Yes	d.
SW8240	Xylene (total)	mg/kg	5	ND	106.000	40.0	0.015	Yes	d.

N = 5

SWMUs Group=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW6010	Barium	mg/kg	9	38.100	84.000	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	9	0.026	11.300	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	9	5.300	47.800	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	9	0.256	288.000	88.9	0.271	Yes	b.

N = 4

Table 2-1

Quantitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	Anthracene	ug/kg	7	ND	24.000	14.3	NC	Yes	f.
SW8270	Benzo(a)anthracene	ug/kg	7	ND	119.000	14.3	NC	Yes	f.
SW8270	Benzo(a)pyrene	ug/kg	7	ND	98.500	14.3	NC	Yes	f.
SW8270	Benzo(b)fluoranthene	ug/kg	7	ND	170.000	14.3	NC	Yes	f.
SW8270	Benzo(g,h,i)perylene	ug/kg	7	ND	23.200	14.3	NC	Yes	f.
SW8270	Benzo(k)fluoranthene	ug/kg	7	ND	170.000	14.3	NC	Yes	f.
SW8270	Chrysene	ug/kg	7	ND	152.000	28.6	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	7	ND	230.000	28.6	NC	Yes	f.
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	7	ND	35.100	14.3	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	7	ND	124.000	14.3	NC	Yes	f.
SW8270	Pyrene	ug/kg	7	ND	206.000	28.6	NC	Yes	f.

N = 11

SWMUs Group=54/55/21/22/123 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	4	2.350	3.500	100.0	0.069	Yes	b.
SW6010	Barium	mg/kg	4	44.300	77.400	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	4	0.119	2.310	100.0	NC	Yes	f.

Table 2-1
Quantitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=54/55/21/22/123 METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW6010	Chromium	mg/kg	4	9.750	27.800	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	4	7.520	220.000	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	4	0.896	2.000	100.0	0.204	Yes	b.

N = 6

SWMUs Group=54/55/21/22/123 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	2-Methylnaphthalene	ug/kg	1	201.000	201.000	100.0	NC	Yes	f.
SW8270	Benzo(a)anthracene	ug/kg	1	83.700	83.700	100.0	NC	Yes	f.
SW8270	Chrysene	ug/kg	1	83.700	83.700	100.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	5	9.700	10300.000	80.0	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	4	0.002	0.004	75.0	0.002	Yes	d.
SW8270	Naphthalene	ug/kg	1	93.100	93.100	100.0	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	1	69.500	69.500	100.0	NC	Yes	f.
SW8270	Pyrene	ug/kg	1	43.800	43.800	100.0	NC	Yes	f.

N = 8

NC = Not calculated.
ND = Concentration not measureable.
UTL = Upper tolerance limit.

1. = Frequency of occurrence is the percent of results greater than the UTL for blanks. If the UTL for blanks was not calculated, then the frequency of occurrence is the percent of measureable results.

2. = Upper tolerance limit for the 95th percentile with 95% confidence.

a. No measureable results on site

b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).

c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).

d. Frequency of occurrence >= 5%.

e. Frequency of occurrence < 5%.

f. Frequency of measureable results >= 5% (No UTL for blanks calculated).

g. Frequency of measureable results < 5% (No UTL for blanks calculated).

Table 2-2

Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=040/128/138 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	2	3.660	5.720	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	2	134.000	306.000	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	2	4.070	27.900	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	2	15.000	93.600	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	2	34.000	327.000	100.0	0.271	Yes	d
SW7471	Mercury	mg/kg	2	-0.043	0.779	50.0	0.023	Yes	d
SW7740	Selenium	mg/kg	2	2.420	3.310	100.0	0.204	Yes	d

N = 7

SWMUs Group=040/128/138 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	2	ND	9.210	50.0	0.059	Yes	d.
SW8270	Benzo(g,h,i)perylene	ug/kg	2	ND	656.000	50.0	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	2	ND	7.820	50.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	2	298.000	13400.000	100.0	16.540	Yes	d.
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	2	ND	338.000	50.0	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	2	0.001	0.003	50.0	0.002	Yes	d.
SW8270	Pyrene	ug/kg	2	ND	10.600	50.0	NC	Yes	f.

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=136 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	2	0.825	2.190	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	2	43.600	120.000	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	2	0.069	0.527	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	2	4.150	16.100	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	2	1.640	17.600	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	2	1.320	1.480	100.0	0.204	Yes	d

N = 6

SWMUs Group=136 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1,1-Trichloroethane	mg/kg	2	ND	0.005	50.0	NC	Yes	f.
SW8240	Acetone	mg/kg	2	0.013	0.894	50.0	0.059	Yes	d.
SW8240	Ethyl benzene	mg/kg	2	ND	0.000	50.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	2	329.000	445.000	100.0	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	2	ND	0.004	50.0	0.002	Yes	d.
SW8240	Toluene	mg/kg	2	ND	0.001	50.0	0.000	Yes	d.

N = 6

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=040/128/138 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	bis(2-Ethylhexyl)phthalate	ug/kg	2	507.000	3410.000	50.0	1754.919	Yes	d.

N = 8

SWMUs Group=124 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	Benzo(a)anthracene	ug/kg	1	20.900	20.900	100.0	NC	Yes	f.
SW8270	Chrysene	ug/kg	1	20.400	20.400	100.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	1	840.000	840.000	100.0	16.540	Yes	d.
SW8240	Toluene	mg/kg	1	0.001	0.001	100.0	0.000	Yes	d.
SW8240	Trichloroethene	mg/kg	1	0.005	0.005	100.0	NC	Yes	f.

N = 5

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=155 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	3	1.650	3.760	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	3	40.600	63.000	100.0	0.193	Yes	d
SW6010	Beryllium	mg/kg	3	0.126	0.205	66.7	0.138	Yes	d
SW6010	Cadmium	mg/kg	3	-0.142	0.163	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	3	4.820	6.100	100.0	1.196	Yes	d
SW6010	Cobalt	mg/kg	3	1.000	1.380	100.0	0.793	Yes	d
SW6010	Copper	mg/kg	3	1.460	4.580	33.3	2.926	Yes	d
SW7421	Lead	mg/kg	3	1.760	9.760	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	3	1.860	2.610	100.0	0.204	Yes	d
SW6010	Silver	mg/kg	3	-0.749	1.980	33.3	0.697	Yes	d
SW9030	Sulfide	mg/kg	3	-14.100	31.400	33.3	0.105	Yes	d
SW6010	Vanadium	mg/kg	3	13.400	16.800	100.0	1.432	Yes	d
SW6010	Zinc	mg/kg	3	6.260	8.950	100.0	0.984	Yes	d

N = 13

SWMUs Group=155 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8080	4,4'-DDD	mg/kg	3	ND	0.001	33.3	0.000	Yes	d.

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=155 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8080	4,4'-DDE	mg/kg	3	ND	0.001	33.3	0.000	Yes	d.
SW8080	4,4'-DDT	mg/kg	3	ND	0.002	33.3	0.000	Yes	d.
SW8240	Carbon disulfide	mg/kg	3	ND	0.005	66.7	NC	Yes	f.
SW8150	Dichloroprop	mg/kg	3	0.020	0.029	33.3	0.025	Yes	d.
SW8080	Dieldrin	mg/kg	3	ND	0.001	33.3	NC	Yes	f.
SW8080	Endosulfan II	mg/kg	3	ND	0.000	33.3	NC	Yes	f.
SW8080	Endrin Aldehyde	mg/kg	3	ND	0.000	33.3	NC	Yes	f.
SW8080	Heptachlor epoxide	mg/kg	3	ND	0.004	66.7	NC	Yes	f.
SW8150	MCPA	mg/kg	3	ND	5.100	33.3	NC	Yes	f.
SW8140	Methyl azinphos	mg/kg	3	ND	0.002	33.3	NC	Yes	f.
SW8140	Methyl parathion	mg/kg	3	ND	0.112	66.7	NC	Yes	f.
SW8140	Naled	mg/kg	3	ND	0.010	33.3	0.008	Yes	d.
SW8140	Phorate	mg/kg	3	ND	0.001	66.7	NC	Yes	f.
SW8080	gamma-Chlordane	mg/kg	3	ND	0.000	33.3	NC	Yes	f.

N = 15

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=56 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	3	-3.010	0.156	33.3	0.069	Yes	d
SW6010	Barium	mg/kg	3	45.000	47.700	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	3	0.010	0.267	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	3	9.640	13.800	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	3	4.150	8.160	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	3	0.402	3.540	100.0	0.204	Yes	d

N = 6

SWMUs Group=56 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1,1-Trichloroethane	mg/kg	3	ND	0.015	33.3	NC	Yes	f.
SW8240	Acetone	mg/kg	3	0.019	0.076	66.7	0.059	Yes	d.
SW8240	Carbon disulfide	mg/kg	3	ND	0.004	33.3	NC	Yes	f.
SW8240	Ethyl benzene	mg/kg	3	ND	0.002	66.7	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	3	106.000	464.000	100.0	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	3	0.001	0.013	66.7	0.002	Yes	d.
SW8240	Toluene	mg/kg	3	ND	0.001	66.7	0.000	Yes	d.

N = 7

Table 2-2

Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=63 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	5	2.980	4.090	100.0	0.069	Yes	b.
SW6010	Cadmium	mg/kg	5	0.106	0.340	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	5	3.230	7.100	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	5	2.490	16.700	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	5	1.860	2.440	100.0	0.204	Yes	b.

N = 5

SWMUs Group=63 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	Chrysene	ug/kg	5	ND	33.400	40.0	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	5	ND	26.000	20.0	NC	Yes	f.
SW8015	Methanol	mg/kg	5	ND	10.300	20.0	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	5	ND	0.004	80.0	0.002	Yes	d.
SW8270	Pyrene	ug/kg	5	ND	31.300	20.0	NC	Yes	f.

N = 5

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=71 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	5	0.001	10.400	80.0	0.069	Yes	b.
SW6010	Cadmium	mg/kg	5	-0.075	0.177	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	5	3.250	4.970	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	5	0.931	42.400	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	5	2.720	3.750	100.0	0.204	Yes	b.

N = 5

SWMUs Group=71 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8015	Ethanol	mg/kg	5	1.660	2.120	100.0	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	5	0.001	0.005	80.0	0.002	Yes	d.

N = 2

Table 2-2

Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=78 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	4	3.650	4.900	100.0	0.069	Yes	b.
SW6010	Barium	mg/kg	4	33.400	67.700	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	4	0.087	0.335	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	4	3.850	9.340	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	4	2.680	10.400	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	4	-0.229	2.960	75.0	0.204	Yes	b.

N = 6

SWMUs Group=78 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	4	ND	0.077	25.0	0.059	Yes	d.
E418.1	Hydrocarbons	mg/kg	4	21.000	71.700	100.0	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	4	0.003	0.004	100.0	0.002	Yes	d.

N = 3

Table 2-2
Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=91 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	2	4.120	5.160	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	2	89.000	101.000	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	2	0.427	0.428	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	2	11.600	12.600	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	2	6.450	8.010	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	2	0.319	0.942	100.0	0.204	Yes	d

N = 6

SWMUs Group=91 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	2	0.071	0.088	100.0	0.059	Yes	d.
SW8240	Methylene Chloride	mg/kg	2	0.003	0.004	100.0	0.002	Yes	d.

N = 2

Table 2-2

Qualitative Risk Assessments - Surface Soil Conclusions

SWMUs Group=AOC-U METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	15	-1.010	7.360	66.7	0.069	Yes	b.
SW6010	Barium	mg/kg	15	24.600	149.000	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	15	-0.307	0.431	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	15	3.480	28.600	100.0	1.196	Yes	b.
SW7471	Mercury	mg/kg	15	-0.059	0.049	33.3	0.023	Yes	b.
SW7740	Selenium	mg/kg	15	0.168	5.080	93.3	0.204	Yes	b.

N = 6

SWMUs Group=AOC-U METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	9	ND	3.340	33.3	0.059	Yes	d.
SW8240	Carbon disulfide	mg/kg	9	ND	0.025	11.1	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	9	0.001	0.006	66.7	0.002	Yes	d.
SW8240	Trichloroethene	mg/kg	9	ND	0.009	11.1	NC	Yes	f.

N = 4

NC = Not calculated.
ND = Concentration not measureable.
UTL = Upper tolerance limit.

1. = Frequency of occurrence is the percent of results greater than the UTL for blanks.

If the UTL for blanks was not calculated, then the frequency of occurrence is the percent of measureable results.

2. = Upper tolerance limit for the 95th percentile with 95% confidence.

a. No measureable results on site

b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).

c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).

d. Frequency of occurrence >= 5%.

e. Frequency of occurrence < 5%.

f. Frequency of measureable results >= 5% (No UTL for blanks calculated).

g. Frequency of measureable results < 5% (No UTL for blanks calculated).

Table 2-3

Quantitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=129/178

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7421	Lead	Wilcoxon	32	32	0.271	32	0.0023	S	0.0855	8.000	12	Yes	b.

N = 1

RISK_GRP=164

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	8	8	0.069	7	0.0102	S	0.2110	6.883	0	Yes	b.
SW6010	Barium	t-Test	8	8	0.193	8	0.6889	NS	0.9214	84.363	0	No	c.
SW6010	Cadmium	Wilcoxon	8	8	NC	NC	0.2523	NS	0.1634	0.560	0	Yes	f.
SW6010	Chromium	t-Test	8	8	1.196	8	0.0000	S	0.7532	6.605	1	Yes	b.
SW7421	Lead	Wilcoxon	8	8	0.271	8	0.0666	S	0.1263	8.000	3	Yes	b.
SW7471	Mercury	t-Test	8	8	0.023	0	0.5589	NS	0.0028	-0.001	1	No	e
SW7740	Selenium	Wilcoxon	8	8	0.204	8	0.0205	S	0.1576	10.531	0	Yes	b.
SW6010	Silver	t-Test	8	8	0.697	0	0.8283	NS	0.0934	0.734	0	No	e

N = 8

Table 2-3

Quantitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=165/177/179/181

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Barium	Wilcoxon	9	9	0.193	9	0.0304	S	0.1239	84.363	0	Yes	b.
SW6010	Cadmium	Wilcoxon	9	9	NC	NC	0.0005	S	0.1501	0.560	2	Yes	f.
SW6010	Chromium	Wilcoxon	9	9	1.196	9	0.0010	S	0.0957	6.605	7	Yes	b.
SW7421	Lead	Wilcoxon	9	9	0.271	8	0.0147	S	0.1081	8.000	5	Yes	b.
SW6010	Silver	t-Test	9	9	0.697	0	0.0213	S	0.0908	0.734	0	No	e

N = 5

RISK_GRP=54/55/21/22/123

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	4	4	0.069	4	0.0000	S	0.2078	6.883	0	Yes	b.
SW6010	Barium	t-Test	4	4	0.193	4	0.0087	S	0.7501	84.363	0	Yes	b.
SW6010	Cadmium	Wilcoxon	4	4	NC	NC	0.0298	S	0.1597	0.560	3	Yes	f.
SW6010	Chromium	t-Test	4	4	1.196	4	0.0208	S	0.3100	6.605	4	Yes	b.
SW7421	Lead	Wilcoxon	4	4	0.271	4	0.0859	S	0.1337	8.000	3	Yes	b.
SW7471	Mercury	Wilcoxon	4	4	0.023	0	0.0056	S	0.1535	-0.001	1	No	e
SW7740	Selenium	Wilcoxon	4	4	0.204	4	0.0487	S	0.1609	10.531	0	Yes	b.
SW6010	Silver	t-Test	4	4	0.697	0	0.6298	NS	0.1197	0.734	0	No	e

N = 8

UTL = Upper tolerance limit for the 95th percentile at the 95% confidence level.

NC = Not calculated.

NS = Not statistically significant at the 0.20 significance level.
S = Statistically significant at the 0.20 significance level.

1. = Test conducted at a 0.20 significance level.
2. = Power is the probability of detecting a difference of 40% between the site and background mean at the 0.20 significance level.

a. No measureable results on site.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (no UTL for blanks calculated).
g. Frequency of measureable results < 5% (no UTL for blanks calculated).

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=040/128/138

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	2	2	0.069	2	0.0305	S	0.2055	6.883	0	Yes	d
SW6010	Barium	t-Test	2	2	0.193	2	0.1385	S	0.3347	84.363	2	Yes	d
SW6010	Cadmium	Wilcoxon	2	2	NC	NC	0.0192	S	0.1606	0.560	2	Yes	f.
SW6010	Chromium	t-Test	2	2	1.196	2	0.2061	NS	0.2182	6.605	2	Yes	d
SW7421	Lead	Wilcoxon	2	2	0.271	2	0.1023	S	0.1396	8.000	2	Yes	d
SW7471	Mercury	t-Test	2	2	0.023	1	0.2564	NS	0.1598	-0.001	1	Yes	d
SW7740	Selenium	t-Test	2	2	0.204	2	0.1984	S	0.1871	10.531	0	Yes	d
SW6010	Silver	t-Test	2	2	0.697	0	0.4465	NS	0.1391	0.734	0	No	e

N = 8

RISK_GRP=136

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	2	2	0.069	2	0.2816	NS	0.2055	6.883	0	Yes	d
SW6010	Barium	t-Test	2	2	0.193	2	0.2191	NS	0.4687	84.363	1	Yes	d
SW6010	Cadmium	Wilcoxon	2	2	NC	NC	0.0300	S	0.1612	0.560	0	Yes	f.
SW6010	Chromium	t-Test	2	2	1.196	2	0.2079	NS	0.3211	6.605	1	Yes	d
SW7421	Lead	Wilcoxon	2	2	0.271	2	0.1023	S	0.1396	8.000	1	Yes	d
SW7471	Mercury	t-Test	2	2	0.023	0	0.0008	S	0.0195	-0.001	2	No	e

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=136

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	t-Test	2	2	0.204	2	0.0049	S	0.1871	10.531	0	Yes	d
SW6010	Silver	t-Test	2	2	0.697	0	0.7254	NS	0.1394	0.734	0	No	e

N = 8

RISK_GRP=155

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Antimony	t-Test	3	3	7.921	0	1.0000	NS	0.1687	7.284	0	No	e
SW7060	Arsenic	t-Test	3	3	0.069	3	0.0954	S	0.2067	6.883	0	Yes	d
SW6010	Barium	t-Test	3	3	0.193	3	0.0774	S	0.7074	84.363	0	Yes	d
SW6010	Beryllium	Wilcoxon	3	3	0.138	2	0.0503	S	0.1367	0.400	0	Yes	d
SW6010	Cadmium	Wilcoxon	3	3	NC	NC	0.5000	NS	0.1666	0.560	0	Yes	f.
SW6010	Chromium	t-Test	3	3	1.196	3	0.0023	S	0.5896	6.605	0	Yes	d
SW6010	Cobalt	t-Test	3	3	0.793	3	0.1905	S	0.6192	2.485	0	Yes	d
SW6010	Copper	t-Test	3	3	2.926	1	0.6143	NS	0.8294	4.844	0	Yes	d
SW9012	Cyanide	Wilcoxon	3	3	0.846	0	NC	NC	NC	NC	NC	No	e
SW7421	Lead	Wilcoxon	3	3	0.271	3	0.0697	S	0.1329	8.000	1	Yes	d
SW7471	Mercury	t-Test	3	3	0.023	0	0.0217	S	0.0117	-0.001	1	No	e

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=155

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	Wilcoxon	3	3	0.204	3	0.0669	S	0.1620	10.531	0	Yes	d
SW6010	Silver	t-Test	3	3	0.697	1	0.2683	NS	0.1356	0.734	1	Yes	d
SW9030	Sulfide	Wilcoxon	3	3	0.105	1	NC	NC	NC	NC	NC	Yes	d
SW6010	Vanadium	t-Test	3	3	1.432	3	0.0005	S	0.7250	15.460	1	Yes	d
SW6010	Zinc	t-Test	3	3	0.984	3	0.3220	NS	0.5545	20.246	0	Yes	d

N = 16

RISK_GRP=56

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	3	3	0.069	1	0.7247	NS	0.2067	6.883	0	Yes	d
SW6010	Barium	t-Test	3	3	0.193	3	0.0376	S	0.7346	84.363	0	Yes	d
SW6010	Cadmium	Wilcoxon	3	3	NC	NC	0.1087	S	0.1625	0.560	0	Yes	f.
SW6010	Chromium	t-Test	3	3	1.196	3	0.0000	S	0.5076	6.605	3	Yes	d
SW7421	Lead	Wilcoxon	3	3	0.271	3	0.1616	S	0.1435	8.000	1	Yes	d
SW7471	Mercury	t-Test	3	3	0.023	0	0.0001	S	0.0109	-0.001	2	No	e
SW7740	Selenium	t-Test	3	3	0.204	3	0.2539	NS	0.1842	10.531	0	Yes	d
SW6010	Silver	t-Test	3	3	0.697	0	1.0000	NS	0.1273	0.734	0	No	e

N = 8

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=63

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	5	5	0.069	5	0.0000	S	0.2087	6.883	0	Yes	b.
SW6010	Barium	t-Test	5	5	0.193	5	0.7441	NS	0.8359	84.363	0	No	c.
SW6010	Cadmium	Wilcoxon	5	5	NC	NC	0.0091	S	0.1581	0.560	0	Yes	f.
SW6010	Chromium	t-Test	5	5	1.196	5	0.0035	S	0.6160	6.605	1	Yes	b.
SW7421	Lead	Wilcoxon	5	5	0.271	5	0.0212	S	0.1229	8.000	2	Yes	b.
SW7471	Mercury	t-Test	5	5	0.023	0	0.0036	S	0.0041	-0.001	1	No	e
SW7740	Selenium	t-Test	5	5	0.204	5	0.0003	S	0.1798	10.531	0	Yes	b.
SW6010	Silver	t-Test	5	5	0.697	0	0.9970	NS	0.1122	0.734	0	No	e

N = 8

RISK_GRP=71

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	5	5	0.069	4	0.0015	S	0.2082	6.883	2	Yes	b.
SW6010	Barium	t-Test	5	5	0.193	5	0.6370	NS	0.8428	84.363	0	No	c.
SW6010	Cadmium	Wilcoxon	5	5	NC	NC	0.0990	S	0.1615	0.560	0	Yes	f.
SW6010	Chromium	Wilcoxon	5	5	1.196	5	0.0234	S	0.1258	6.605	0	Yes	b.
SW7421	Lead	Wilcoxon	5	5	0.271	5	0.1240	S	0.1374	8.000	4	Yes	b.
SW7471	Mercury	t-Test	5	5	0.023	0	0.0003	S	0.0030	-0.001	1	No	e

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=71 (continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	t-Test	5	5	0.204	5	0.0000	S	0.1798	10.531	0	Yes	b.
SW6010	Silver	t-Test	5	5	0.697	0	0.6965	NS	0.1108	0.734	0	No	e

N = 8

RISK_GRP=78

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	4	4	0.069	4	0.0000	S	0.2078	6.883	0	Yes	b.
SW6010	Barium	t-Test	4	4	0.193	4	0.1335	S	0.7361	84.363	0	Yes	b.
SW6010	Cadmium	Wilcoxon	4	4	NC	NC	0.0075	S	0.1577	0.560	0	Yes	f.
SW6010	Chromium	t-Test	4	4	1.196	4	0.0004	S	0.5240	6.605	3	Yes	b.
SW7421	Lead	Wilcoxon	4	4	0.271	4	0.1102	S	0.1369	8.000	1	Yes	b.
SW7471	Mercury	Wilcoxon	4	4	0.023	0	0.0396	S	0.1580	-0.001	0	No	e
SW7740	Selenium	t-Test	4	4	0.204	3	0.0315	S	0.1819	10.531	0	Yes	b.
SW6010	Silver	t-Test	4	4	0.697	0	0.5394	NS	0.1184	0.734	0	No	e

N = 8

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=91

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	2	2	0.069	2	0.0317	S	0.2055	6.883	0	Yes	d
SW6010	Barium	t-Test	2	2	0.193	2	0.0004	S	0.6274	84.363	2	Yes	d
SW6010	Cadmium	Wilcoxon	2	2	NC	NC	0.0230	S	0.1618	0.560	0	Yes	f.
SW6010	Chromium	t-Test	2	2	1.196	2	0.0000	S	0.5116	6.605	2	Yes	d
SW7421	Lead	Wilcoxon	2	2	0.271	2	0.0730	S	0.1392	8.000	1	Yes	d
SW7471	Mercury	t-Test	2	2	0.023	0	0.0000	S	0.0194	-0.001	0	No	e
SW7740	Selenium	t-Test	2	2	0.204	2	0.3902	NS	0.1871	10.531	0	Yes	d
SW6010	Silver	t-Test	2	2	0.697	0	0.9930	NS	0.1396	0.734	0	No	e

N = 8

RISK_GRP=AOC-U

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	Wilcoxon	15	15	0.069	10	0.0936	S	0.1592	6.883	3	Yes	b.
SW6010	Barium	Wilcoxon	15	15	0.193	15	0.0748	S	0.1311	84.363	4	Yes	b.
SW6010	Cadmium	Wilcoxon	15	15	NC	NC	0.0175	S	0.1544	0.560	0	Yes	f.
SW6010	Chromium	Wilcoxon	15	15	1.196	15	0.0009	S	0.0924	6.605	6	Yes	b.
SW7421	Lead	Wilcoxon	15	15	0.271	14	0.2664	NS	0.1474	8.000	5	No	c.
SW7471	Mercury	t-Test	15	15	0.023	5	0.0909	S	0.0099	-0.001	5	Yes	b.

Table 2-4

Qualitative Risk Assessments - Surface Soil Comparisons to Background

RISK_GRP=AOC-U

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	t-Test	15	15	0.204	14	0.0000	S	0.1660	10.531	0	Yes	b.
SW6010	Silver	t-Test	15	15	0.697	0	0.9887	NS	0.0881	0.734	0	No	e

N = 8

UTL = Upper tolerance limit for the 95th percentile at the 95% confidence level.
NC = Not calculated.
NS = Not statistically significant at the 0.20 significance level.
S = Statistically significant at the 0.20 significance level.

1. = Test conducted at a 0.20 significance level.
2. = Power is the probability of detecting a difference of 40% between the site and background mean at the 0.20 significance level.

a. No measureable results on site.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (no UTL for blanks calculated).
g. Frequency of measureable results < 5% (no UTL for blanks calculated).

Table 2-5

Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=118/132/AOC-A METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8150	2,4,5-T	mg/kg	2	2	0.011	0.0112	0.0111	0.0117
SW8150	2,4,5-TP (Silvex)	mg/kg	2	2	0.0072	0.0094	0.0083	0.0152
SW8080	4,4'-DDD	mg/kg	2	2	0.0005	0.0096	0.0051	0.0337
SW8080	4,4'-DDT	mg/kg	2	1	ND	0.012	0.0086	0.0303
SW8240	Acetone	mg/kg	10	10	0.0148	2.2	0.3821	0.7694
SW8080	Aldrin	mg/kg	2	2	0.0005	0.0093	0.0049	0.0325
SW8140	Chlorpyrifos (Dursban)	mg/kg	1	1	0.531	0.531	0.531	NC
SW8140	Coumaphos	mg/kg	1	1	0.0023	0.0023	0.0023	NC
SW8140	Diazinon	mg/kg	1	1	0.0779	0.0779	0.0779	NC
SW8140	Dichlorvos	mg/kg	1	1	0.0485	0.0485	0.0485	NC
SW8080	Dieldrin	mg/kg	2	2	0.0005	0.009	0.0048	0.0316
SW8150	Dinoseb	mg/kg	2	2	0.0083	0.0228	0.0156	0.0613
SW8080	Endrin	mg/kg	2	2	0.0005	0.0081	0.0043	0.0282
SW8080	Endrin Aldehyde	mg/kg	2	2	0.0011	0.0038	0.0025	0.0111
SW8140	Fenthion	mg/kg	1	1	0.0124	0.0124	0.0124	NC
SW8080	Heptachlor epoxide	mg/kg	2	2	0.0005	0.386	0.1933	1.4101
E418.1	Hydrocarbons	mg/kg	10	10	8.35	133	36.217	59.845
SW8150	MCPA	mg/kg	2	2	14	21.5	17.75	41.427
SW8140	Merphos B	mg/kg	1	1	0.0061	0.0061	0.0061	NC
SW8140	Methyl azinphos	mg/kg	2	2	0.0046	0.25	0.1273	0.9021
SW8140	Methyl parathion	mg/kg	2	1	ND	0.0015	0.0015	0.0018
SW8240	Methylene Chloride	mg/kg	10	3	ND	0.14	0.0145	0.0401
SW8140	Mevinphos	mg/kg	1	1	0.004	0.004	0.004	NC
SW8080	PCB-1260	mg/kg	8	7	ND	0.581	0.1396	0.3064
SW8140	Sulprofos (Bolstar)	mg/kg	1	1	0.0019	0.0019	0.0019	NC
SW8240	Toluene	mg/kg	10	1	ND	0.0057	0.0035	0.0043
SW8080	alpha-BHC	mg/kg	2	2	0.0002	0.0053	0.0027	0.0188
SW8080	delta-BHC	mg/kg	2	2	0.0007	0.0142	0.0074	0.0502

Table 2-5
Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=118/132/AOC-A METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	gamma-BHC	mg/kg	2	2	0.0005	0.0068	0.0037	0.0235

N = 29

RISK_GRP=129/178 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7421	Lead	mg/kg	32	32	2.06	1480	67.399	145.99

N = 1

RISK_GRP=129/178 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Aniline	ug/kg	32	2	ND	251	36.716	49.702
SW8270	Anthracene	ug/kg	32	3	ND	15.9	5.7131	6.7047
SW8240	Benzene	mg/kg	19	1	ND	0.0008	0.0004	0.0005

Table 2-5
Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=129/178 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Benzo(a)anthracene	ug/kg	32	11	ND	122	15.432	21.954
SW8270	Benzo(a)pyrene	ug/kg	32	8	ND	123	14.322	20.954
SW8270	Benzo(b)fluoranthene	ug/kg	32	8	ND	267	29.063	43.936
SW8270	Benzo(g,h,i)perylene	ug/kg	32	4	ND	77.8	21.815	26.534
SW8270	Benzo(k)fluoranthene	ug/kg	32	8	ND	267	27.951	42.907
SW8270	Chrysene	ug/kg	32	11	ND	221	21.507	33.16
SW8270	Dibutylphthalate	ug/kg	32	2	ND	187	17.097	26.612
SW8240	Ethyl benzene	mg/kg	19	1	ND	0.0013	0.0005	0.0007
SW8270	Fluoranthene	ug/kg	32	10	ND	234	23.734	36.934
E418.1	Hydrocarbons	mg/kg	32	32	-4.29	1430	158.11	255.43
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	32	2	ND	64	13.153	16.724
SW8270	Phenanthrene	ug/kg	32	7	ND	83.8	15.328	20.346
SW8270	Pyrene	ug/kg	32	10	ND	230	23.176	36.146
SW8240	Toluene	mg/kg	19	13	ND	0.0059	0.0015	0.0021
SW8240	Trichloroethene	mg/kg	19	1	ND	0.0034	0.0015	0.0019

N = 18

Table 2-5

Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=164 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	8	8	-0.175	3.17	1.5113	2.2171
SW6010	Cadmium	mg/kg	8	8	-0.107	0.293	0.0204	0.1045
SW6010	Chromium	mg/kg	8	8	3.73	6.99	5.555	6.2478
SW7421	Lead	mg/kg	8	8	1.71	14.1	6.3538	10.204
SW7740	Selenium	mg/kg	8	8	1.91	2.58	2.36	2.522

N = 5

RISK_GRP=164 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1-Dichloroethene	mg/kg	5	2	ND	0.63	0.4744	0.6192
SW8240	Benzene	mg/kg	5	2	ND	0.276	0.1524	0.2573
SW8240	Ethyl benzene	mg/kg	5	3	ND	54.7	21.781	50.214
SW8240	Toluene	mg/kg	5	3	ND	41.4	16.402	37.812
SW8240	Xylene (total)	mg/kg	5	3	ND	106	42.202	97.293

N = 5

Table 2-5
Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	5	5	0.99	34	13.658	28.916
SW6010	Barium	mg/kg	9	9	38.1	84	48.856	57.712
SW6010	Cadmium	mg/kg	14	14	0.0255	38	5.1065	9.9099
SW6010	Chromium	mg/kg	14	14	5.3	190	36.556	62.827
SW6010	Copper	mg/kg	5	5	14	140	74.8	128.23
SW7421	Lead	mg/kg	14	14	0.256	1300	251.13	448.67
SW7471	Mercury	mg/kg	5	5	0.06	0.074	0.066	0.0713
SW6010	Nickel	mg/kg	5	5	6.5	58	27.9	46.022
SW6010	Silver	mg/kg	14	14	-0.68	12	1.5793	3.0784
SW6010	Zinc	mg/kg	5	5	30	540	226	409.96

N = 10

RISK_GRP=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1-Dichloroethene	mg/kg	5	5	0.018	0.15	0.09	0.1518
SW8270	Anthracene	ug/kg	7	1	ND	24	12.987	19.044
SW8270	Benzo(a)anthracene	ug/kg	7	1	ND	119	78.278	109.86
SW8270	Benzo(a)pyrene	ug/kg	7	1	ND	98.5	42.577	63.296
SW8270	Benzo(b)fluoranthene	ug/kg	7	1	ND	170	109.43	141.16
SW8270	Benzo(g,h,i)perylene	ug/kg	7	1	ND	23.2	15.086	21.416

Table 2-5
Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=165/177/179/181 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Benzo(k)fluoranthene	ug/kg	7	1	ND	170	69.192	115
SW8270	Chrysene	ug/kg	7	2	ND	152	30.766	70.126
SW8240	Ethyl benzene	mg/kg	5	5	0.0059	0.15	0.1052	0.1602
SW8270	Fluoranthene	ug/kg	7	2	ND	230	42.329	103.25
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	7	1	ND	35.1	22.216	31.394
SW8240	Methylene Chloride	mg/kg	5	5	0.036	0.72	0.284	0.5492
SW8270	Phenanthrene	ug/kg	7	1	ND	124	70.437	92.667
SW8270	Pyrene	ug/kg	7	2	ND	206	39.354	93.365
SW8240	Tetrachloroethene	mg/kg	5	5	0.028	0.15	0.1096	0.1556
SW8240	Toluene	mg/kg	5	5	0.008	0.0093	0.0089	0.0094
SW8240	Xylene (total)	mg/kg	5	5	0.013	0.15	0.0902	0.1488

N = 17

RISK_GRP=54/55/21/22/123 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	4	4	2.35	3.5	3.125	3.7607
SW6010	Barium	mg/kg	4	4	44.3	77.4	61.7	77.892
SW6010	Cadmium	mg/kg	4	4	0.119	2.31	1.031	2.1148
SW6010	Chromium	mg/kg	4	4	9.75	27.8	16.213	25.825

Table 2-5

Quantitative Risk Assessments - Surface Soil COCs

RISK_GRP=54/55/21/22/123 METHOD=Inorganics

(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7421	Lead	mg/kg	4	4	7.52	220	95.93	202.19
SW7740	Selenium	mg/kg	4	4	0.896	2	1.664	2.272

N = 6

RISK_GRP=54/55/21/22/123 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	2-Methylnaphthalene	ug/kg	6	1	ND	201	97.013	163.97
SW8270	Benzo(a)anthracene	ug/kg	6	1	ND	83.7	44.284	67.193
SW8270	Chrysene	ug/kg	6	1	ND	83.7	42.927	64.493
E418.1	Hydrocarbons	mg/kg	11	9	ND	10300	1180.9	2858.2
SW8240	Methylene Chloride	mg/kg	8	4	ND	0.0038	0.0019	0.0025
SW8270	Naphthalene	ug/kg	6	1	ND	93.1	57.083	82.38
SW8270	Phenanthrene	ug/kg	6	1	ND	69.5	61.767	71.569
SW8270	Pyrene	ug/kg	6	1	ND	43.8	27.231	37.992

N = 8

ND = Not detected.

NC = Not calculated. UCL cannot be calculated with only one site result.

a. Random uniform numbers between zero and the minimum result substituted for non-detected values.

b. One-sided 95% upper confidence limit for the mean.

Table 2-6

Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=040/128/138 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	2	2	3.66	5.72	4.69	11.193164
SW6010	Barium	mg/kg	2	2	134	306	220	762.98263
SW6010	Cadmium	mg/kg	2	2	4.07	27.9	15.985	91.213349
SW6010	Chromium	mg/kg	2	2	15	93.6	54.3	302.43043
SW7421	Lead	mg/kg	2	2	34	327	180.5	1105.4646
SW7471	Mercury	mg/kg	2	2	-0.0432	0.779	0.3679	2.9634832
SW7740	Selenium	mg/kg	2	2	2.42	3.31	2.865	5.6746194

N = 7

RISK_GRP=040/128/138 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	2	1	ND	9.21	6.050765	25.99739
SW8270	Benzo(g,h,i)perylene	ug/kg	2	1	ND	656	639.37528	744.33961
SW8270	Fluoranthene	ug/kg	2	1	ND	7.82	6.9573475	12.403921
E418.1	Hydrocarbons	mg/kg	2	2	298	13400	6849	48210.386
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	2	1	ND	338	178.37545	1186.2052
SW8240	Methylene Chloride	mg/kg	2	2	0.000691	0.00258	0.0016355	0.0075988
SW8270	Pyrene	ug/kg	2	1	ND	10.6	7.8540094	25.191512
SW8270	bis(2-Ethylhexyl)phthalate	ug/kg	2	2	507	3410	1958.5	11122.91

N = 8

Table 2-6

Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=124 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Benzo(a)anthracene	ug/kg	1	1	20.9	20.9	20.9	NC
SW8270	Chrysene	ug/kg	1	1	20.4	20.4	20.4	NC
E418.1	Hydrocarbons	mg/kg	1	1	840	840	840	NC
SW8240	Toluene	mg/kg	1	1	0.000735	0.000735	0.000735	NC
SW8240	Trichloroethene	mg/kg	1	1	0.00532	0.00532	0.00532	NC

N = 5

RISK_GRP=136 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	2	2	0.825	2.19	1.5075	5.8166354
SW6010	Barium	mg/kg	2	2	43.6	120	81.8	322.98531
SW6010	Cadmium	mg/kg	2	2	0.0691	0.527	0.29805	1.7435834
SW6010	Chromium	mg/kg	2	2	4.15	16.1	10.125	47.849665
SW7421	Lead	mg/kg	2	2	1.64	17.6	9.62	60.003737
SW7740	Selenium	mg/kg	2	2	1.32	1.48	1.4	1.9051001

N = 6

Table 2-6
Qualitative Risk Assessments - Surface Soil COCs

---------- RISK_GRP=136 METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1,1-Trichloroethane	mg/kg	2	1	ND	0.00475	0.0024025	0.0172238
SW8240	Acetone	mg/kg	2	2	0.0129	0.894	0.45345	3.2349732
SW8240	Ethyl benzene	mg/kg	2	1	ND	0.00041	0.0002663	0.0011736
E418.1	Hydrocarbons	mg/kg	2	2	329	445	387	753.19759
SW8240	Methylene Chloride	mg/kg	2	1	ND	0.00357	0.002745	0.0079538
SW8240	Toluene	mg/kg	2	1	ND	0.00107	0.000681	0.0031373

N = 6

---------- RISK_GRP=155 METHOD=Inorganics ----------

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	3	3	1.65	3.76	2.7033333	4.4819164
SW6010	Barium	mg/kg	3	3	40.6	63	51.366667	70.290586
SW6010	Beryllium	mg/kg	3	3	0.126	0.205	0.165	0.2316073
SW6010	Cadmium	mg/kg	3	3	-0.142	0.163	-0.036333	0.2548676
SW6010	Chromium	mg/kg	3	3	4.82	6.1	5.46	6.5389469
SW6010	Cobalt	mg/kg	3	3	1	1.38	1.2033333	1.5260031
SW6010	Copper	mg/kg	3	3	1.46	4.58	2.5866667	5.5051594
SW7421	Lead	mg/kg	3	3	1.76	9.76	4.74	12.11187
SW7740	Selenium	mg/kg	3	3	1.86	2.61	2.36	3.0899964
SW6010	Silver	mg/kg	3	3	-0.749	1.98	0.4029333	2.7855497

Table 2-6
Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=155 METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW9030	Sulfide	mg/kg	3	3	-14.1	31.4	1.1333333	45.32277
SW6010	Vanadium	mg/kg	3	3	13.4	16.8	15	17.880789
SW6010	Zinc	mg/kg	3	3	6.26	8.95	8.01	10.567336

N = 13

RISK_GRP=155 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	4,4'-DDD	mg/kg	3	1	ND	0.00143	0.000899	0.0021063
SW8080	4,4'-DDE	mg/kg	3	1	ND	0.000877	0.0004846	0.0011744
SW8080	4,4'-DDT	mg/kg	3	1	ND	0.00151	0.0012297	0.0019795
SW8240	Carbon disulfide	mg/kg	3	2	ND	0.00469	0.0043434	0.0049912
SW8150	Dichloroprop	mg/kg	3	3	0.0197	0.0292	0.0237667	0.0320193
SW8080	Dieldrin	mg/kg	3	1	ND	0.000888	0.0006467	0.0011598
SW8080	Endosulfan II	mg/kg	3	1	ND	0.0000252	0.0000187	0.0000292
SW8080	Endrin Aldehyde	mg/kg	3	1	ND	0.000235	0.0001718	0.0003203
SW8080	Heptachlor epoxide	mg/kg	3	2	ND	0.00364	0.0012409	0.0047437
SW8150	MCPA	mg/kg	3	1	ND	5.1	2.6707074	6.7071035
SW8140	Methyl azinphos	mg/kg	3	1	ND	0.0021	0.001143	0.0028368
SW8140	Methyl parathion	mg/kg	3	2	ND	0.112	0.070077	0.1423387

Table 2-6
Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=155 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8140	Naled	mg/kg	3	1	ND	0.00951	0.007719	0.0124576
SW8140	Phorate	mg/kg	3	2	ND	0.00103	0.0009703	0.0011164
SW8080	gamma-Chlordane	mg/kg	3	1	ND	0.000195	0.0001111	0.0002354

N = 15

RISK_GRP=56 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	3	3	-3.01	0.156	-1.06	1.8158305
SW6010	Barium	mg/kg	3	3	45	47.7	46.766667	49.347364
SW6010	Cadmium	mg/kg	3	3	0.0104	0.267	0.1814667	0.4312228
SW6010	Chromium	mg/kg	3	3	9.64	13.8	11.28	15.014539
SW7421	Lead	mg/kg	3	3	4.15	8.16	5.83	9.3408299
SW7740	Selenium	mg/kg	3	3	0.402	3.54	1.6606667	4.4566863

N = 6

Table 2-6
Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=56 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1,1-Trichloroethane	mg/kg	3	1	ND	0.0146	0.0115278	0.0198665
SW8240	Acetone	mg/kg	3	3	0.0194	0.0759	0.0548	0.1068006
SW8240	Carbon disulfide	mg/kg	3	1	ND	0.00399	0.0024499	0.0054819
SW8240	Ethyl benzene	mg/kg	3	2	ND	0.00218	0.001463	0.0035129
E418.1	Hydrocarbons	mg/kg	3	3	106	464	301	606.36311
SW8240	Methylene Chloride	mg/kg	3	3	0.00125	0.0125	0.0076067	0.0173273
SW8240	Toluene	mg/kg	3	2	ND	0.00106	0.0005761	0.0013391

N = 7

RISK_GRP=63 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	5	5	2.98	4.09	3.608	4.0644044
SW6010	Cadmium	mg/kg	5	5	0.106	0.34	0.1862	0.273195
SW6010	Chromium	mg/kg	5	5	3.23	7.1	4.972	6.4438299
SW7421	Lead	mg/kg	5	5	2.49	16.7	8.422	14.489112
SW7740	Selenium	mg/kg	5	5	1.86	2.44	2.076	2.2920014

N = 5

Table 2-6
Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=63 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Chrysene	ug/kg	5	2	ND	33.4	14.823559	25.906416
SW8270	Fluoranthene	ug/kg	5	1	ND	26	15.619449	23.003531
SW8015	Methanol	mg/kg	5	1	ND	10.3	5.2484253	8.6333135
SW8240	Methylene Chloride	mg/kg	5	4	ND	0.00405	0.0033258	0.0039828
SW8270	Pyrene	ug/kg	5	1	ND	31.3	16.629703	26.758786

N = 5

RISK_GRP=71 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	5	5	0.00117	10.4	5.068234	9.516628
SW6010	Cadmium	mg/kg	5	5	-0.075	0.177	0.06423	0.1644761
SW6010	Chromium	mg/kg	5	5	3.25	4.97	3.742	4.4062815
SW7421	Lead	mg/kg	5	5	0.931	42.4	27.4462	42.316097
SW7740	Selenium	mg/kg	5	5	2.72	3.75	3.228	3.5937469

N = 5

Table 2-6

Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=71 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8015	Ethanol	mg/kg	5	5	1.66	2.12	1.864	2.0837561
SW8240	Methylene Chloride	mg/kg	5	5	0.00109	0.00513	0.003516	0.0050227

N = 2

RISK_GRP=78 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	4	4	3.65	4.9	4.1	4.7841639
SW6010	Barium	mg/kg	4	4	33.4	67.7	46.95	65.253485
SW6010	Cadmium	mg/kg	4	4	0.0867	0.335	0.227925	0.3516066
SW6010	Chromium	mg/kg	4	4	3.85	9.34	7.015	9.7244103
SW7421	Lead	mg/kg	4	4	2.68	10.4	5.7125	10.061676
SW7740	Selenium	mg/kg	4	4	-0.229	2.96	1.58525	3.2473965

N = 6

Table 2-6
Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=78 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	4	3	ND	0.0774	0.0270584	0.0671957
E418.1	Hydrocarbons	mg/kg	4	4	21	71.7	38.55	65.18402
SW8240	Methylene Chloride	mg/kg	4	4	0.00338	0.00434	0.004015	0.0045349

N = 3

RISK_GRP=91 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	2	2	4.12	5.16	4.64	7.9231508
SW6010	Barium	mg/kg	2	2	89	101	95	132.88251
SW6010	Cadmium	mg/kg	2	2	0.427	0.428	0.4275	0.4306569
SW6010	Chromium	mg/kg	2	2	11.6	12.6	12.1	15.256876
SW7421	Lead	mg/kg	2	2	6.45	8.01	7.23	12.154726
SW7740	Selenium	mg/kg	2	2	0.319	0.942	0.6305	2.5972336

N = 6

Table 2-6

Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=91 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	2	2	0.0707	0.0875	0.0791	0.1321355
SW8240	Methylene Chloride	mg/kg	2	2	0.00349	0.00359	0.00354	0.0038557

N = 2

RISK_GRP=AOC-U METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	15	15	-1.01	7.36	2.1392333	3.6184346
SW6010	Barium	mg/kg	15	15	24.6	149	63.573333	84.23609
SW6010	Cadmium	mg/kg	15	15	-0.307	0.431	0.1233013	0.2121121
SW6010	Chromium	mg/kg	15	15	3.48	28.6	10.926	15.22374
SW7471	Mercury	mg/kg	15	15	-0.059	0.0486	-0.012267	0.0059577
SW7740	Selenium	mg/kg	15	15	0.168	5.08	2.9305333	3.5637977

N = 6

Table 2-6

Qualitative Risk Assessments - Surface Soil COCs

RISK_GRP=AOC-U METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	9	8	ND	3.34	0.5092229	1.1962672
SW8240	Carbon disulfide	mg/kg	9	1	ND	0.0254	0.0150093	0.0206287
SW8240	Methylene Chloride	mg/kg	9	9	0.00102	0.006	0.0040289	0.0053846
SW8240	Trichloroethene	mg/kg	9	1	ND	0.0085	0.0050004	0.0062967

N = 4

ND = Not detected.

NC = Not calculated. UCL cannot be calculated with only one site result.

a. Random uniform numbers between zero and the minimum result substituted for non-detected values.

b. One-sided 95% upper confidence limit for the mean.

Attachment A.3: Subsurface Soil Summary Tables for COPCs

Table 3-1

Quantitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=118/132/AOC-A METHOD=Organics

(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8080	Methoxychlor	mg/kg	10	ND	0.103	30.0	NC	Yes	f.
SW8140	Methyl azinphos	mg/kg	6	ND	0.003	33.3	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	14	ND	0.006	35.7	0.002	Yes	d.
SW8140	Mevinphos	mg/kg	6	ND	0.004	16.7	NC	Yes	f.
SW8140	Naled	mg/kg	6	0.004	0.016	16.7	0.008	Yes	d.
SW8080	PCB-1260	mg/kg	2	0.406	0.639	100.0	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	2	ND	4750.000	50.0	NC	Yes	f.
SW8140	Phorate	mg/kg	6	ND	0.008	33.3	NC	Yes	f.
SW8270	Pyrene	ug/kg	2	211.000	265.000	100.0	NC	Yes	f.
SW8140	Sulprofos (Bolstar)	mg/kg	6	ND	0.004	16.7	NC	Yes	f.
SW8080	alpha-BHC	mg/kg	10	ND	0.005	10.0	NC	Yes	f.
SW8080	delta-BHC	mg/kg	10	ND	0.061	50.0	0.001	Yes	d.
SW8080	gamma-BHC	mg/kg	10	ND	0.004	10.0	0.000	Yes	d.

N = 40

Table 3-1

Quantitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=129/178 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7421	Lead	mg/kg	24	0.441	9.870	100.0	0.271	Yes	b.

N = 1

SWMUs Group=129/178 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	6	0.010	1.100	16.7	0.059	Yes	d.
E418.1	Hydrocarbons	mg/kg	24	-5.170	23.100	4.2	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	6	ND	0.004	33.3	0.002	Yes	d.

N = 3

Table 3-1
Quantitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=164 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	4	0.440	1.020	100.0	0.069	Yes	b.
SW6010	Barium	mg/kg	4	55.600	64.200	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	4	-0.140	0.237	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	4	7.680	13.700	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	4	3.460	6.540	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	4	0.497	2.360	100.0	0.204	Yes	b.

N = 6

SWMUs Group=164 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Toluene	mg/kg	4	ND	0.001	25.0	0.000	Yes	d.

N = 1

Table 3-1

Quantitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW6010	Barium	mg/kg	36	18.800	143.000	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	36	-0.225	22.400	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	36	3.670	188.000	100.0	1.196	Yes	b.
SW6010	Silver	mg/kg	36	-1.180	1.500	2.8	0.697	Yes	b.

N = 4

SWMUs Group=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	2-Methylnaphthalene	ug/kg	3	ND	6050.000	33.3	NC	Yes	f.
SW8270	4-Chloro-3-methylphenol	ug/kg	3	ND	4250.000	33.3	NC	Yes	f.
SW8270	Naphthalene	ug/kg	3	ND	1910.000	33.3	NC	Yes	f.
SW8270	bis(2-Ethylhexyl)phthalate	ug/kg	3	ND	19700.000	33.3	1754.919	Yes	d.
SW8270	p-Chloroaniline	ug/kg	3	ND	1690.000	33.3	NC	Yes	f.

N = 5

Table 3-1

Quantitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=54/55/21/22/123 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	22	-0.910	5.120	77.3	0.069	Yes	b.
SW6010	Cadmium	mg/kg	22	-0.365	0.364	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	22	2.630	21.100	100.0	1.196	Yes	b.
SW7471	Mercury	mg/kg	22	-0.065	0.065	13.6	0.023	Yes	b.
SW7740	Selenium	mg/kg	22	-1.250	4.640	86.4	0.204	Yes	b.

N = 5

SWMUs Group=54/55/21/22/123 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1-Dichloroethene	mg/kg	22	ND	7.210	13.6	NC	Yes	f.
SW8240	2-Hexanone	mg/kg	22	ND	0.007	9.1	0.004	Yes	d.
SW8270	2-Methylnaphthalene	ug/kg	14	ND	4380.000	21.4	NC	Yes	f.
SW8240	4-Methyl-2-Pentanone(MIBK)	mg/kg	22	ND	0.006	4.5	0.003	Yes	d.
SW8240	Acetone	mg/kg	22	ND	0.778	22.7	0.059	Yes	d.
SW8240	Benzene	mg/kg	22	ND	54.000	13.6	NC	Yes	f.
SW8240	Carbon disulfide	mg/kg	22	ND	0.013	4.5	NC	Yes	f.
SW8270	Dibenzofuran	ug/kg	14	ND	471.000	7.1	NC	Yes	f.
SW8240	Ethyl benzene	mg/kg	22	ND	229.000	13.6	NC	Yes	f.

Table 3-1

Quantitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=54/55/21/22/123 METHOD=Organics

(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
E418.1	Hydrocarbons	mg/kg	22	-4.760	4510.000	22.7	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	22	ND	0.007	22.7	0.002	Yes	d.
SW8270	Naphthalene	ug/kg	14	ND	402.000	7.1	NC	Yes	f.
SW8240	Toluene	mg/kg	22	ND	345.000	13.6	0.000	Yes	d.
SW8240	Trichloroethene	mg/kg	22	ND	0.003	13.6	NC	Yes	f.
SW8240	Xylene (total)	mg/kg	22	ND	363.000	13.6	0.015	Yes	d.

N = 15

NC = Not calculated.
ND = Concentration not measureable.
UTL = Upper tolerance limit.

1. = Frequency of occurrence is the percent of results greater than the UTL for blanks. If the UTL for blanks was not calculated, then the frequency of occurrence is the percent of measureable results.
2. = Upper tolerance limit for the 95th percentile with 95% confidence.

a. No measureable results on site
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (No UTL for blanks calculated).
g. Frequency of measureable results < 5% (No UTL for blanks calculated).

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=040/128/138 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	8	0.264	2.760	100.0	0.069	Yes	b.
SW6010	Barium	mg/kg	8	16.200	82.200	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	8	-0.202	0.320	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	8	2.520	8.870	100.0	1.196	Yes	b.
SW7471	Mercury	mg/kg	8	-0.049	0.026	12.5	0.023	Yes	b.
SW7740	Selenium	mg/kg	8	0.598	4.570	100.0	0.204	Yes	b.

N = 6

SWMUs Group=040/128/138 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	8	0.007	0.983	37.5	0.059	Yes	d.
SW8240	Chloromethane	mg/kg	8	ND	0.009	12.5	0.003	Yes	d.
SW8240	Methylene Chloride	mg/kg	8	ND	0.023	62.5	0.002	Yes	d.

N = 3

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=119/2 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	8	-0.242	4.630	75.0	0.069	Yes	b.
SW6010	Barium	mg/kg	8	26.800	125.000	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	8	0.139	0.511	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	8	4.880	21.900	100.0	1.196	Yes	b.
SW7471	Mercury	mg/kg	8	-0.013	0.026	12.5	0.023	Yes	b.
SW7740	Selenium	mg/kg	8	2.860	26.400	100.0	0.204	Yes	b.

N = 6

SWMUs Group=119/2 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	2-Methylnaphthalene	ug/kg	2	424.000	503.000	100.0	NC	Yes	f.
SW8270	Acenaphthene	ug/kg	2	20.200	40.100	100.0	NC	Yes	f.
SW8240	Acetone	mg/kg	8	0.013	0.578	25.0	0.059	Yes	d.
SW8270	Dibenzofuran	ug/kg	2	35.000	90.100	100.0	NC	Yes	f.
SW8270	Dibutylphthalate	ug/kg	2	63.300	184.000	100.0	13.300	Yes	d.
SW8240	Ethyl benzene	mg/kg	8	ND	0.013	25.0	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	2	ND	11.800	50.0	NC	Yes	f.
SW8270	Fluorene	ug/kg	2	ND	82.400	50.0	NC	Yes	f.

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=119/2 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Methyl ethyl ketone	mg/kg	8	0.007	0.047	25.0	0.019	Yes	d.
SW8240	Methylene Chloride	mg/kg	8	ND	0.005	87.5	0.002	Yes	d.
SW8270	Naphthalene	ug/kg	2	28.500	47.200	100.0	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	2	61.900	162.000	100.0	NC	Yes	f.
SW8270	Pyrene	ug/kg	2	ND	15.100	50.0	NC	Yes	f.
SW8240	Toluene	mg/kg	8	ND	0.031	25.0	0.000	Yes	d.
SW8240	Xylene (total)	mg/kg	8	ND	0.046	12.5	0.015	Yes	d.

N = 15

SWMUs Group=120/15 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	4	0.970	3.650	100.0	0.069	Yes	b.
SW6010	Barium	mg/kg	4	42.100	69.300	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	4	-0.016	0.107	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	4	5.560	9.080	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	4	2.110	7.370	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	4	1.380	2.950	100.0	0.204	Yes	b.

N = 6

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=120/15 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
E418.1	Hydrocarbons	mg/kg	4	1.510	36.000	75.0	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	4	ND	0.004	50.0	0.002	Yes	d.

N = 2

SWMUs Group=121/17 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	6	0.109	1.970	100.0	0.069	Yes	b.
SW6010	Cadmium	mg/kg	6	-0.056	0.094	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	6	3.400	5.820	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	6	1.150	83.600	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	6	1.940	3.200	100.0	0.204	Yes	b.

N = 5

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=121/17 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	6	0.023	0.392	50.0	0.059	Yes	d.
SW8240	Carbon disulfide	mg/kg	6	ND	0.004	16.7	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	6	-5.590	358.000	50.0	16.540	Yes	d.
SW8240	Methyl ethyl ketone	mg/kg	6	ND	0.028	16.7	0.019	Yes	d.
SW8240	Methylene Chloride	mg/kg	6	ND	0.012	83.3	0.002	Yes	d.

N = 5

SWMUs Group=125/32 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	8	3.160	7.180	100.0	0.069	Yes	b.
SW6010	Cadmium	mg/kg	8	0.130	0.869	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	8	3.360	9.120	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	8	1.950	116.000	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	8	0.851	2.060	100.0	0.204	Yes	b.

N = 5

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

---------- SWMUs Group=125/32 METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	2-Hexanone	mg/kg	8	ND	0.007	12.5	0.004	Yes	d.
SW8270	2-Methylnaphthalene	ug/kg	7	ND	16.000	14.3	NC	Yes	f.
SW8240	4-Methyl-2-Pentanone(MIBK)	mg/kg	8	ND	0.005	12.5	0.003	Yes	d.
SW8240	Acetone	mg/kg	8	0.008	0.076	25.0	0.059	Yes	d.
SW8270	Anthracene	ug/kg	7	ND	12.500	28.6	NC	Yes	f.
SW8240	Benzene	mg/kg	8	ND	0.001	12.5	NC	Yes	f.
SW8270	Benzo(a)anthracene	ug/kg	7	ND	44.400	28.6	NC	Yes	f.
SW8270	Benzo(a)pyrene	ug/kg	7	ND	78.000	28.6	NC	Yes	f.
SW8270	Benzo(b)fluoranthene	ug/kg	7	ND	147.000	28.6	NC	Yes	f.
SW8270	Benzo(g,h,i)perylene	ug/kg	7	ND	31.700	14.3	NC	Yes	f.
SW8270	Benzo(k)fluoranthene	ug/kg	7	ND	147.000	28.6	NC	Yes	f.
SW8240	Carbon disulfide	mg/kg	8	ND	0.004	25.0	NC	Yes	f.
SW8270	Chrysene	ug/kg	7	ND	61.400	28.6	NC	Yes	f.
SW8240	Ethyl benzene	mg/kg	8	ND	0.000	12.5	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	7	ND	59.300	42.9	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	8	11.000	734.000	75.0	16.540	Yes	d.
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	7	ND	27.000	14.3	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	8	ND	0.009	62.5	0.002	Yes	d.
SW8270	Phenanthrene	ug/kg	7	ND	32.800	42.9	NC	Yes	f.
SW8270	Pyrene	ug/kg	7	ND	94.800	42.9	NC	Yes	f.
SW8240	Toluene	mg/kg	8	ND	0.001	37.5	0.000	Yes	d.
SW8240	Trichloroethene	mg/kg	8	ND	0.001	12.5	NC	Yes	f.

N = 22

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=126/36 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	9	0.339	1.400	100.0	0.069	Yes	b.
SW6010	Cadmium	mg/kg	9	-0.010	0.203	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	9	4.150	8.170	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	9	1.900	13.600	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	9	0.020	3.020	77.8	0.204	Yes	b.

N = 5

SWMUs Group=126/36 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	9	0.014	0.965	33.3	0.059	Yes	d.
E418.1	Hydrocarbons	mg/kg	9	-11.500	5030.000	33.3	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	9	ND	0.017	55.6	0.002	Yes	d.

N = 3

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=136 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	4	0.686	3.480	100.0	0.069	Yes	b.
SW6010	Barium	mg/kg	4	35.000	96.600	100.0	0.193	Yes	b.
SW6010	Cadmium	mg/kg	4	-0.016	0.202	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	4	4.110	13.300	100.0	1.196	Yes	b.
SW7421	Lead	mg/kg	4	1.550	9.550	100.0	0.271	Yes	b.
SW7740	Selenium	mg/kg	4	0.615	2.570	100.0	0.204	Yes	b.

N = 6

SWMUs Group=136 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1,1-Trichloroethane	mg/kg	3	ND	6.230	33.3	NC	Yes	f.
SW8240	1,1-Dichloroethane	mg/kg	3	ND	0.039	33.3	NC	Yes	f.
SW8240	1,1-Dichloroethene	mg/kg	3	ND	0.456	33.3	NC	Yes	f.
SW8270	2-Methylnaphthalene	ug/kg	1	48500.000	48500.000	100.0	NC	Yes	f.
SW8270	Acenaphthene	ug/kg	1	2150.000	2150.000	100.0	NC	Yes	f.
SW8240	Acetone	mg/kg	3	0.009	2.360	33.3	0.059	Yes	d.
SW8270	Anthracene	ug/kg	1	1020.000	1020.000	100.0	NC	Yes	f.
SW8240	Benzene	mg/kg	3	ND	0.005	33.3	NC	Yes	f.

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=136 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Carbon disulfide	mg/kg	3	ND	0.021	33.3	NC	Yes	f.
SW8270	Chrysene	ug/kg	1	296.000	296.000	100.0	NC	Yes	f.
SW8270	Dibenzofuran	ug/kg	1	5190.000	5190.000	100.0	NC	Yes	f.
SW8240	Ethyl benzene	mg/kg	3	ND	1.270	33.3	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	1	413.000	413.000	100.0	NC	Yes	f.
SW8270	Fluorene	ug/kg	1	4440.000	4440.000	100.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	4	-5.310	9360.000	75.0	16.540	Yes	d.
SW8240	Methyl ethyl ketone	mg/kg	3	ND	0.086	33.3	0.019	Yes	d.
SW8240	Methylene Chloride	mg/kg	3	ND	0.013	66.7	0.002	Yes	d.
SW8270	Naphthalene	ug/kg	1	4920.000	4920.000	100.0	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	1	11800.000	11800.000	100.0	NC	Yes	f.
SW8270	Pyrene	ug/kg	1	1290.000	1290.000	100.0	NC	Yes	f.
SW8240	Toluene	mg/kg	3	ND	0.700	33.3	0.000	Yes	d.
SW8240	Xylene (total)	mg/kg	3	ND	9.270	33.3	0.015	Yes	d.

N = 22

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

---------- SWMUs Group=155 METHOD=Inorganics ----------

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	3	0.737	2.990	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	3	42.000	60.000	100.0	0.193	Yes	d
SW6010	Beryllium	mg/kg	3	0.117	0.193	33.3	0.138	Yes	d
SW6010	Cadmium	mg/kg	3	-0.168	0.096	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	3	5.300	8.480	100.0	1.196	Yes	d
SW6010	Cobalt	mg/kg	3	1.630	2.080	100.0	0.793	Yes	d
SW6010	Copper	mg/kg	3	2.480	5.930	33.3	2.926	Yes	d
SW7421	Lead	mg/kg	3	2.520	8.130	100.0	0.271	Yes	d
SW7471	Mercury	mg/kg	3	-0.014	0.036	66.7	0.023	Yes	d
SW7740	Selenium	mg/kg	3	1.820	2.280	100.0	0.204	Yes	d
SW6010	Silver	mg/kg	3	0.238	3.420	33.3	0.697	Yes	d
SW9030	Sulfide	mg/kg	3	-13.800	80.100	66.7	0.105	Yes	d
SW6010	Vanadium	mg/kg	3	14.500	21.300	100.0	1.432	Yes	d
SW6010	Zinc	mg/kg	3	8.960	31.400	100.0	0.984	Yes	d

N = 14

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

---------- SWMUs Group=155 METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1-Dichloroethene	mg/kg	3	ND	0.090	33.3	NC	Yes	f.
SW8270	1,4-Dichlorobenzene	ug/kg	3	ND	94.800	33.3	NC	Yes	f.
SW8270	2-Methylnaphthalene	ug/kg	3	ND	11300.000	33.3	NC	Yes	f.
SW8080	4,4'-DDD	mg/kg	3	ND	0.285	33.3	0.000	Yes	d.
SW8270	Acenaphthene	ug/kg	3	ND	221.000	33.3	NC	Yes	f.
SW8270	Anthracene	ug/kg	3	ND	53.700	33.3	NC	Yes	f.
SW8240	Benzene	mg/kg	3	ND	0.009	66.7	NC	Yes	f.
SW8240	Carbon disulfide	mg/kg	3	ND	0.053	33.3	NC	Yes	f.
SW8270	Chrysene	ug/kg	3	ND	65.100	33.3	NC	Yes	f.
SW8150	Dicamba	mg/kg	3	ND	0.001	33.3	0.001	Yes	d.
SW8240	Ethyl benzene	mg/kg	3	ND	0.878	33.3	NC	Yes	f.
SW8270	Fluoranthene	ug/kg	3	ND	66.300	33.3	NC	Yes	f.
SW8270	Fluorene	ug/kg	3	ND	1080.000	33.3	NC	Yes	f.
SW8080	Heptachlor epoxide	mg/kg	3	ND	0.006	33.3	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	3	ND	0.005	33.3	0.002	Yes	d.
SW8140	Naled	mg/kg	3	ND	0.008	33.3	0.008	Yes	d.
SW8270	Naphthalene	ug/kg	3	ND	1700.000	33.3	NC	Yes	f.
SW8270	Phenanthrene	ug/kg	3	ND	948.000	33.3	NC	Yes	f.
SW8270	Pyrene	ug/kg	3	ND	77.300	33.3	NC	Yes	f.
SW8240	Toluene	mg/kg	3	ND	0.051	33.3	0.000	Yes	d.
SW8240	Xylene (total)	mg/kg	3	ND	2.090	33.3	0.015	Yes	d.
SW8080	gamma-Chlordane	mg/kg	3	ND	0.009	33.3	NC	Yes	f.

N = 22

Table 3-2

Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=156 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	11	-0.769	6.260	90.9	0.069	Yes	b.
SW6010	Barium	mg/kg	11	18.900	86.700	100.0	0.193	Yes	b.
SW6010	Beryllium	mg/kg	11	0.059	1.870	90.9	0.138	Yes	b.
SW6010	Cadmium	mg/kg	11	-0.099	0.700	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	11	3.880	17.600	100.0	1.196	Yes	b.
SW6010	Cobalt	mg/kg	11	1.170	4.040	100.0	0.793	Yes	b.
SW6010	Copper	mg/kg	11	1.790	8.070	90.9	2.926	Yes	b.
SW7421	Lead	mg/kg	11	0.783	14.800	100.0	0.271	Yes	b.
SW7471	Mercury	mg/kg	11	-0.051	0.049	18.2	0.023	Yes	b.
SW7740	Selenium	mg/kg	11	-2.070	2.810	72.7	0.204	Yes	b.
SW9030	Sulfide	mg/kg	11	-30.300	29.000	27.3	0.105	Yes	d.
SW6010	Vanadium	mg/kg	11	12.200	25.700	100.0	1.432	Yes	b.
SW6010	Zinc	mg/kg	11	3.190	49.500	100.0	0.984	Yes	b.

N = 13

SWMUs Group=156 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8150	2,4,5-T	mg/kg	11	ND	0.013	9.1	0.009	Yes	d.

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=156 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8270	2-Methylnaphthalene	ug/kg	11	ND	47.000	9.1	NC	Yes	f.
SW8080	4,4'-DDD	mg/kg	11	ND	0.183	72.7	0.000	Yes	d.
SW8080	4,4'-DDE	mg/kg	11	ND	0.028	45.5	0.000	Yes	d.
SW8080	4,4'-DDT	mg/kg	11	ND	0.045	27.3	0.000	Yes	d.
SW8080	Aldrin	mg/kg	11	ND	0.001	9.1	NC	Yes	f.
SW8240	Carbon disulfide	mg/kg	11	ND	0.019	9.1	NC	Yes	f.
SW8270	Dibenzofuran	ug/kg	11	ND	16.700	9.1	NC	Yes	f.
SW8150	Dichloroprop	mg/kg	11	0.008	0.099	36.4	0.025	Yes	d.
SW8150	Dinoseb	mg/kg	11	ND	0.008	9.1	0.008	Yes	d.
SW8080	Endrin	mg/kg	11	ND	0.000	9.1	NC	Yes	f.
SW8080	Endrin Aldehyde	mg/kg	11	ND	0.003	27.3	NC	Yes	f.
SW8015	Ethanol	mg/kg	11	ND	2.100	45.5	NC	Yes	f.
SW8140	Ethoprop	mg/kg	11	ND	0.027	27.3	0.015	Yes	d.
SW8140	Fensulfothion	mg/kg	11	ND	0.026	9.1	0.009	Yes	d.
SW8080	Heptachlor	mg/kg	11	ND	0.000	9.1	NC	Yes	f.
SW8080	Heptachlor epoxide	mg/kg	11	ND	0.001	54.5	NC	Yes	f.
SW8140	Methyl azinphos	mg/kg	11	ND	0.004	9.1	NC	Yes	f.
SW8140	Methyl parathion	mg/kg	11	ND	0.038	18.2	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	11	ND	0.005	18.2	0.002	Yes	d.
SW8140	Naled	mg/kg	11	ND	0.061	63.6	0.008	Yes	d.
SW8270	Phenanthrene	ug/kg	11	ND	30.300	9.1	NC	Yes	f.
SW7841	Thallium	mg/kg	11	0.079	0.762	36.4	0.268	Yes	d.
SW8080	alpha-Chlordane	mg/kg	11	ND	0.010	18.2	NC	Yes	f.
SW8080	delta-BHC	mg/kg	11	ND	0.006	18.2	0.001	Yes	d.
SW8080	gamma-Chlordane	mg/kg	11	ND	0.015	36.4	NC	Yes	f.
SW8240	trans-1,2-Dichloroethene	mg/kg	11	ND	0.006	9.1	NC	Yes	f.

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

N = 27

SWMUs Group=56 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	3	0.410	1.010	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	3	24.300	84.600	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	3	-0.036	0.226	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	3	4.850	14.400	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	3	1.190	6.100	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	3	0.642	2.340	100.0	0.204	Yes	d

N = 6

SWMUs Group=56 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	1,1,1-Trichloroethane	mg/kg	4	ND	0.953	25.0	NC	Yes	f.
SW8240	1,1-Dichloroethane	mg/kg	4	ND	0.067	50.0	NC	Yes	f.
SW8240	Acetone	mg/kg	4	0.027	0.733	50.0	0.059	Yes	d.
SW8240	Benzene	mg/kg	4	ND	0.006	50.0	NC	Yes	f.
SW8240	Carbon disulfide	mg/kg	4	ND	0.005	25.0	NC	Yes	f.

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=56 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Ethyl benzene	mg/kg	4	ND	0.260	25.0	NC	Yes	f.
E418.1	Hydrocarbons	mg/kg	3	-2.070	408.000	66.7	16.540	Yes	d.
SW8240	Methyl ethyl ketone	mg/kg	4	ND	0.046	25.0	0.019	Yes	d.
SW8240	Methylene Chloride	mg/kg	4	0.002	0.035	75.0	0.002	Yes	d.
SW8240	Toluene	mg/kg	4	ND	0.156	25.0	0.000	Yes	d.
SW8240	Xylene (total)	mg/kg	4	ND	0.992	25.0	0.015	Yes	d.

N = 11

SWMUs Group=63 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	1	4.360	4.360	100.0	0.069	Yes	d
SW6010	Barium	mg/kg	1	55.300	55.300	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	1	0.050	0.050	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	1	8.750	8.750	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	1	5.130	5.130	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	1	0.759	0.759	100.0	0.204	Yes	d

N = 6

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=71 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	2	0.003	0.443	50.0	0.069	Yes	d
SW6010	Barium	mg/kg	2	33.800	41.700	100.0	0.193	Yes	d
SW6010	Cadmium	mg/kg	2	0.027	0.160	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	2	4.260	9.600	100.0	1.196	Yes	d
SW7421	Lead	mg/kg	2	1.470	25.100	100.0	0.271	Yes	d
SW7740	Selenium	mg/kg	2	2.090	2.510	100.0	0.204	Yes	d

N = 6

SWMUs Group=71 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8015	Ethanol	mg/kg	2	2.190	2.460	100.0	NC	Yes	f.
SW8240	Methylene Chloride	mg/kg	2	ND	0.006	50.0	0.002	Yes	d.

N = 2

Table 3-2
Qualitative Risk Assessments - Subsurface Soil Conclusions

SWMUs Group=78 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW7060	Arsenic	mg/kg	4	3.050	4.030	100.0	0.069	Yes	b.
SW6010	Cadmium	mg/kg	4	-0.017	0.300	100.0	NC	Yes	f.
SW6010	Chromium	mg/kg	4	3.370	5.330	100.0	1.196	Yes	b.
SW7740	Selenium	mg/kg	4	1.630	3.620	100.0	0.204	Yes	b.

N = 4

SWMUs Group=78 METHOD=Organics

Analytical Method	Analyte	Units	N	Minimum	Maximum	Freq of Occ.(a)	UTL for Blank Data(b)	Chemical of Potential Concern?	Footnote
SW8240	Acetone	mg/kg	4	0.008	0.060	25.0	0.059	Yes	d.
E418.1	Hydrocarbons	mg/kg	4	7.750	22.800	25.0	16.540	Yes	d.
SW8240	Methylene Chloride	mg/kg	4	ND	0.014	50.0	0.002	Yes	d.

N = 3

NC = Not calculated.
ND = Concentration not measureable.
UTL = Upper tolerance limit.

1. = Frequency of occurrence is the percent of results greater than the UTL for blanks. If the UTL for blanks was not calculated, then the frequency of occurrence is the percent of measureable results.
2. = Upper tolerance limit for the 95th percentile with 95% confidence.

a. No measureable results on site

b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).

c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).

d. Frequency of occurrence >= 5%.

e. Frequency of occurrence < 5%.

f. Frequency of measureable results >= 5% (No UTL for blanks calculated).

g. Frequency of measureable results < 5% (No UTL for blanks calculated).

Table 3-3

Quantitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=129/178

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7421	Lead	Wilcoxon	24	24	0.271	24	0.0761	S	0.1234	8.000	1	Yes	b.

N = 1

RISK_GRP=164

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	4	4	0.069	4	0.0800	S	0.2078	6.883	0	Yes	b.
SW6010	Barium	Wilcoxon	4	4	0.193	4	0.0458	S	0.1380	84.363	0	Yes	b.
SW6010	Cadmium	Wilcoxon	4	4	NC	NC	0.5725	NS	0.1671	0.560	0	Yes	f.
SW6010	Chromium	t-Test	4	4	1.196	4	0.0000	S	0.4862	6.605	4	Yes	b.
SW7421	Lead	Wilcoxon	4	4	0.271	4	0.0726	S	0.1357	8.000	0	Yes	b.
SW7471	Mercury	t-Test	4	4	0.023	0	0.0330	S	0.0053	-0.001	0	No	e
SW7740	Selenium	t-Test	4	4	0.204	4	0.0291	S	0.1819	10.531	0	Yes	b.
SW6010	Silver	t-Test	4	4	0.697	0	0.9740	NS	0.1193	0.734	0	No	e

N = 8

Table 3-3

Quantitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=165/177/179/181

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Barium	Wilcoxon	36	36	0.193	36	0.1115	S	0.1332	84.363	2	Yes	b.
SW6010	Cadmium	Wilcoxon	36	36	NC	NC	0.0067	S	0.1475	0.560	7	Yes	f.
SW6010	Chromium	Wilcoxon	36	36	1.196	36	0.0001	S	0.0729	6.605	16	Yes	b.
SW7421	Lead	Wilcoxon	36	36	0.271	35	0.5334	NS	0.1700	8.000	8	No	c.
SW6010	Silver	t-Test	36	36	0.697	1	0.1225	S	0.0497	0.734	1	Yes	b.

N = 5

RISK_GRP=54/55/21/22/123

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	Wilcoxon	22	22	0.069	17	0.0057	S	0.1505	6.883	0	Yes	b.
SW6010	Barium	Wilcoxon	22	22	0.193	22	0.2174	NS	0.1457	84.363	2	No	c.
SW6010	Cadmium	Wilcoxon	22	22	NC	NC	0.4450	NS	0.1656	0.560	0	Yes	f.
SW6010	Chromium	Wilcoxon	22	22	1.196	22	0.0006	S	0.0872	6.605	9	Yes	b.
SW7421	Lead	Wilcoxon	22	22	0.271	20	0.2166	NS	0.1420	8.000	2	No	c.
SW7471	Mercury	t-Test	22	22	0.023	3	0.0015	S	0.0028	-0.001	9	Yes	b.
SW7740	Selenium	t-Test	22	22	0.204	19	0.0003	S	0.1596	10.531	0	Yes	b.
SW6010	Silver	t-Test	22	22	0.697	0	0.5190	NS	0.0651	0.734	0	No	e

N = 8

UTL = Upper tolerance limit for the 95th percentile at the 95% confidence level.

NC = Not calculated.

NS = Not statistically significant at the 0.20 significance level.
S = Statistically significant at the 0.20 significance level.

1. = Test conducted at a 0.20 significance level.
2. = Power is the probability of detecting a difference of 40% between the site and background mean at the 0.20 significance level.

a. No measureable results on site.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (no UTL for blanks calculated).
g. Frequency of measureable results < 5% (no UTL for blanks calculated).

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=040/128/138

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	8	8	0.069	8	0.0057	S	0.2110	6.883	0	Yes	b.
SW6010	Barium	t-Test	8	8	0.193	8	0.1185	S	0.7321	84.363	0	Yes	b.
SW6010	Cadmium	Wilcoxon	8	8	NC	NC	0.0761	S	0.1605	0.560	0	Yes	f.
SW6010	Chromium	t-Test	8	8	1.196	8	0.0012	S	0.5414	6.605	4	Yes	b.
SW7421	Lead	Wilcoxon	8	8	0.271	7	0.2670	NS	0.1495	8.000	0	No	c.
SW7471	Mercury	t-Test	8	8	0.023	1	0.0306	S	0.0031	-0.001	3	Yes	b.
SW7740	Selenium	t-Test	8	8	0.204	8	0.0001	S	0.1747	10.531	0	Yes	b.
SW6010	Silver	Wilcoxon	8	8	0.697	0	0.9518	NS	0.1736	0.734	0	No	e

N = 8

RISK_GRP=119/2

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	8	8	0.069	6	0.1464	S	0.2109	6.883	0	Yes	b.
SW6010	Barium	Wilcoxon	8	8	0.193	8	0.0910	S	0.1372	84.363	1	Yes	b.
SW6010	Cadmium	Wilcoxon	8	8	NC	NC	0.0003	S	0.1510	0.560	0	Yes	f.
SW6010	Chromium	Wilcoxon	8	8	1.196	8	0.0018	S	0.1023	6.605	3	Yes	b.
SW7421	Lead	Wilcoxon	8	8	0.271	5	0.9934	NS	0.2528	8.000	0	No	c.
SW7471	Mercury	t-Test	8	8	0.023	1	0.0000	S	0.0010	-0.001	6	Yes	b.

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=119/2

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	Wilcoxon	8	8	0.204	8	0.0025	S	0.1547	10.531	1	Yes	b.
SW6010	Silver	t-Test	8	8	0.697	0	0.9956	NS	0.0924	0.734	0	No	e

N = 8

RISK_GRP=120/15

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	4	4	0.069	4	0.1438	S	0.2078	6.883	0	Yes	b.
SW6010	Barium	t-Test	4	4	0.193	4	0.0492	S	0.7620	84.363	0	Yes	b.
SW6010	Cadmium	Wilcoxon	4	4	NC	NC	0.1777	S	0.1635	0.560	0	Yes	f.
SW6010	Chromium	t-Test	4	4	1.196	4	0.0001	S	0.5937	6.605	3	Yes	b.
SW7421	Lead	Wilcoxon	4	4	0.271	4	0.0934	S	0.1364	8.000	0	Yes	b.
SW7471	Mercury	t-Test	4	4	0.023	0	0.0052	S	0.0052	-0.001	0	No	e
SW7740	Selenium	t-Test	4	4	0.204	4	0.0012	S	0.1819	10.531	0	Yes	b.
SW6010	Silver	t-Test	4	4	0.697	0	0.5977	NS	0.1184	0.734	0	No	e

N = 8

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=121/17

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	6	6	0.069	6	0.0581	S	0.2096	6.883	0	Yes	b.
SW6010	Barium	Wilcoxon	6	6	0.193	6	0.2454	NS	0.1519	84.363	1	No	c.
SW6010	Cadmium	Wilcoxon	6	6	NC	NC	0.3960	NS	0.1655	0.560	0	Yes	f.
SW6010	Chromium	Wilcoxon	6	6	1.196	6	0.0076	S	0.1163	6.605	0	Yes	b.
SW7421	Lead	Wilcoxon	6	6	0.271	6	0.1526	S	0.1404	8.000	3	Yes	b.
SW7471	Mercury	t-Test	6	6	0.023	0	0.0864	S	0.0021	-0.001	0	No	e
SW7740	Selenium	t-Test	6	6	0.204	6	0.0000	S	0.1779	10.531	0	Yes	b.
SW6010	Silver	t-Test	6	6	0.697	0	0.7983	NS	0.1041	0.734	0	No	e

N = 8

RISK_GRP=125/32

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	8	8	0.069	8	0.0000	S	0.2110	6.883	1	Yes	b.
SW6010	Barium	t-Test	8	8	0.193	8	0.2589	NS	0.8359	84.363	0	No	c.
SW6010	Cadmium	Wilcoxon	8	8	NC	NC	0.0001	S	0.1496	0.560	2	Yes	f.
SW6010	Chromium	t-Test	8	8	1.196	8	0.0000	S	0.6370	6.605	6	Yes	b.
SW7421	Lead	Wilcoxon	8	8	0.271	8	0.0252	S	0.1155	8.000	4	Yes	b.
SW7471	Mercury	t-Test	8	8	0.023	0	0.0000	S	0.0006	-0.001	1	No	e

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=125/32

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	t-Test	8	8	0.204	8	0.0019	S	0.1746	10.531	0	Yes	b.
SW6010	Silver	t-Test	8	8	0.697	0	1.0000	NS	0.0933	0.734	0	No	e

N = 8

RISK_GRP=126/36

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	9	9	0.069	9	0.0403	S	0.2118	6.883	0	Yes	b.
SW6010	Barium	t-Test	9	9	0.193	9	0.6263	NS	0.9557	84.363	0	No	c.
SW6010	Cadmium	Wilcoxon	9	9	NC	NC	0.0906	S	0.1603	0.560	0	Yes	f.
SW6010	Chromium	t-Test	9	9	1.196	9	0.0000	S	0.7335	6.605	4	Yes	b.
SW7421	Lead	Wilcoxon	9	9	0.271	9	0.0796	S	0.1286	8.000	1	Yes	b.
SW7471	Mercury	t-Test	9	9	0.023	0	0.0000	S	0.0006	-0.001	4	No	e
SW7740	Selenium	Wilcoxon	9	9	0.204	7	0.0337	S	0.1585	10.531	0	Yes	b.
SW6010	Silver	t-Test	9	9	0.697	0	0.9178	NS	0.0887	0.734	0	No	e

N = 8

Table 3-4
Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=136

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	4	4	0.069	4	0.1499	S	0.2078	6.883	0	Yes	b.
SW6010	Barium	t-Test	4	4	0.193	4	0.0123	S	0.6162	84.363	2	Yes	b.
SW6010	Cadmium	Wilcoxon	4	4	NC	NC	0.1141	S	0.1631	0.560	0	Yes	f.
SW6010	Chromium	t-Test	4	4	1.196	4	0.0357	S	0.4109	6.605	2	Yes	b.
SW7421	Lead	Wilcoxon	4	4	0.271	4	0.1929	S	0.1476	8.000	1	Yes	b.
SW7471	Mercury	t-Test	4	4	0.023	0	0.0060	S	0.0058	-0.001	1	No	e
SW7740	Selenium	t-Test	4	4	0.204	4	0.0130	S	0.1819	10.531	0	Yes	b.
SW6010	Silver	t-Test	4	4	0.697	0	0.9290	NS	0.1186	0.734	0	No	e

N = 8

RISK_GRP=155

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Antimony	t-Test	3	3	7.921	0	1.0000	NS	0.1686	7.284	0	No	e
SW7060	Arsenic	t-Test	3	3	0.069	3	0.2247	NS	0.2067	6.883	0	Yes	d
SW6010	Barium	t-Test	3	3	0.193	3	0.0570	S	0.7141	84.363	0	Yes	d
SW6010	Beryllium	Wilcoxon	3	3	0.138	1	0.3649	NS	0.1611	0.400	0	Yes	d
SW6010	Cadmium	Wilcoxon	3	3	NC	NC	0.8854	NS	0.1694	0.560	0	Yes	f.
SW6010	Chromium	t-Test	3	3	1.196	3	0.0007	S	0.5392	6.605	1	Yes	d

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=155

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Cobalt	Wilcoxon	3	3	0.793	3	0.0779	S	0.1459	2.485	0	Yes	d
SW6010	Copper	t-Test	3	3	2.926	1	0.2701	NS	0.7990	4.844	1	Yes	d
SW9012	Cyanide	Wilcoxon	3	3	0.846	0	NC	NC	NC	NC	NC	No	e
SW7421	Lead	Wilcoxon	3	3	0.271	3	0.1121	S	0.1435	8.000	1	Yes	d
SW7471	Mercury	t-Test	3	3	0.023	2	0.0527	S	0.0150	-0.001	2	Yes	d
SW7740	Selenium	t-Test	3	3	0.204	3	0.0003	S	0.1842	10.531	0	Yes	d
SW6010	Silver	Wilcoxon	3	3	0.697	1	0.0323	S	0.1623	0.734	1	Yes	d
SW9030	Sulfide	Wilcoxon	3	3	0.105	2	NC	NC	NC	NC	NC	Yes	d
SW6010	Vanadium	t-Test	3	3	1.432	3	0.0001	S	0.6730	15.460	2	Yes	d
SW6010	Zinc	t-Test	3	3	0.984	3	0.1418	S	0.3964	20.246	1	Yes	d

N = 16

RISK_GRP=156

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Antimony	t-Test	11	11	7.921	0	0.9609	NS	0.1466	7.284	0	No	e
SW7060	Arsenic	t-Test	11	11	0.069	10	0.0164	S	0.2126	6.883	0	Yes	b.
SW6010	Barium	t-Test	11	11	0.193	11	0.0440	S	0.8110	84.363	1	Yes	b.

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=156

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW6010	Beryllium	Wilcoxon	11	11	0.138	10	0.0056	S	0.1082	0.400	6	Yes	b.
SW6010	Cadmium	Wilcoxon	11	11	NC	NC	0.0031	S	0.1526	0.560	1	Yes	f.
SW6010	Chromium	t-Test	11	11	1.196	11	0.0000	S	0.4065	6.605	9	Yes	b.
SW6010	Cobalt	t-Test	11	11	0.793	11	0.0001	S	0.6016	2.485	6	Yes	b.
SW6010	Copper	t-Test	11	11	2.926	10	0.0029	S	0.8366	4.844	5	Yes	b.
SW9012	Cyanide	Wilcoxon	11	11	0.846	0	NC	NC	NC	NC	NC	No	e
SW7421	Lead	Wilcoxon	11	11	0.271	11	0.0264	S	0.1137	8.000	2	Yes	b.
SW7471	Mercury	t-Test	11	11	0.023	2	0.0266	S	0.0044	-0.001	3	Yes	b.
SW7740	Selenium	t-Test	11	11	0.204	8	0.0368	S	0.1706	10.531	0	Yes	b.
SW6010	Silver	t-Test	11	11	0.697	0	0.9946	NS	0.0810	0.734	0	No	e
SW9030	Sulfide	Wilcoxon	11	11	0.105	3	NC	NC	NC	NC	NC	Yes	d.
SW6010	Vanadium	t-Test	11	11	1.432	11	0.0000	S	0.7344	15.460	8	Yes	b.
SW6010	Zinc	t-Test	11	11	0.984	11	0.0006	S	0.4162	20.246	6	Yes	b.

N = 16

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=56

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	3	3	0.069	3	0.0863	S	0.2067	6.883	0	Yes	d
SW6010	Barium	t-Test	3	3	0.193	3	0.1385	S	0.5869	84.363	1	Yes	d
SW6010	Cadmium	Wilcoxon	3	3	NC	NC	0.0546	S	0.1628	0.560	0	Yes	f.
SW6010	Chromium	t-Test	3	3	1.196	3	0.0709	S	0.3831	6.605	2	Yes	d
SW7421	Lead	Wilcoxon	3	3	0.271	3	0.1121	S	0.1435	8.000	0	Yes	d
SW7471	Mercury	t-Test	3	3	0.023	0	0.0000	S	0.0105	-0.001	2	No	e
SW7740	Selenium	t-Test	3	3	0.204	3	0.0234	S	0.1842	10.531	0	Yes	d
SW6010	Silver	t-Test	3	3	0.697	0	0.8497	NS	0.1280	0.734	0	No	e

N = 8

RISK_GRP=63

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	Wilcoxon	1	1	0.069	1	0.0771	S	0.1642	6.883	0	Yes	d
SW6010	Barium	Wilcoxon	1	1	0.193	1	0.1807	S	0.1542	84.363	0	Yes	d
SW6010	Cadmium	Wilcoxon	1	1	NC	NC	0.3173	NS	0.1657	0.560	0	Yes	f.
SW6010	Chromium	Wilcoxon	1	1	1.196	1	0.1062	S	0.1502	6.605	1	Yes	d
SW7421	Lead	Wilcoxon	1	1	0.271	1	0.2408	NS	0.1529	8.000	0	Yes	d
SW7471	Mercury	Wilcoxon	1	1	0.023	0	0.1417	S	0.1654	-0.001	0	No	e

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=63

(continued)

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7740	Selenium	Wilcoxon	1	1	0.204	1	0.3084	NS	0.1657	10.531	0	Yes	d
SW6010	Silver	Wilcoxon	1	1	0.697	0	0.9042	NS	0.1688	0.734	0	No	e

N = 8

RISK_GRP=71

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	2	2	0.069	1	0.4823	NS	0.2055	6.883	0	Yes	d
SW6010	Barium	t-Test	2	2	0.193	2	0.4360	NS	0.6317	84.363	0	Yes	d
SW6010	Cadmium	Wilcoxon	2	2	NC	NC	0.3740	NS	0.1660	0.560	0	Yes	f.
SW6010	Chromium	t-Test	2	2	1.196	2	0.0053	S	0.4207	6.605	1	Yes	d
SW7421	Lead	Wilcoxon	2	2	0.271	2	0.1159	S	0.1485	8.000	1	Yes	d
SW7471	Mercury	t-Test	2	2	0.023	0	0.0542	S	0.0195	-0.001	0	No	e
SW7740	Selenium	t-Test	2	2	0.204	2	0.2407	NS	0.1871	10.531	0	Yes	d
SW6010	Silver	t-Test	2	2	0.697	0	0.5273	NS	0.1395	0.734	0	No	e

N = 8

Table 3-4

Qualitative Risk Assessments - Subsurface Soil Comparisons to Background

RISK_GRP=78

Analytical Method	Analyte	Test Type	Site N	Site Detects	Blank UTL (mg/kg)	N > UTL for Blanks	P-Value for T-test(1)	T-test Conclusion	T-test Power (2)	UTL for Background (mg/kg)	N > UTL for Background	Contaminant of Potential Concern?	Footnote
SW7060	Arsenic	t-Test	4	4	0.069	4	0.0000	S	0.2078	6.883	0	Yes	b.
SW6010	Barium	t-Test	4	4	0.193	4	0.7210	NS	0.7837	84.363	0	No	c.
SW6010	Cadmium	Wilcoxon	4	4	NC	NC	0.1206	S	0.1632	0.560	0	Yes	f.
SW6010	Chromium	t-Test	4	4	1.196	4	0.0122	S	0.6379	6.605	0	Yes	b.
SW7421	Lead	Wilcoxon	4	4	0.271	4	0.3297	NS	0.1558	8.000	1	No	c.
SW7471	Mercury	t-Test	4	4	0.023	0	0.0150	S	0.0061	-0.001	1	No	e
SW7740	Selenium	t-Test	4	4	0.204	4	0.0005	S	0.1819	10.531	0	Yes	b.
SW6010	Silver	t-Test	4	4	0.697	0	0.6527	NS	0.1196	0.734	0	No	e

N = 8

UTL = Upper tolerance limit for the 95th percentile at the 95% confidence level.
NC = Not calculated.
NS = Not statistically significant at the 0.20 significance level.
S = Statistically significant at the 0.20 significance level.

1. = Test conducted at a 0.20 significance level.
2. = Power is the probability of detecting a difference of 40% between the site and background mean at the 0.20 significance level.

a. No measureable results on site.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence >= 5%.
e. Frequency of occurrence < 5%.
f. Frequency of measureable results >= 5% (no UTL for blanks calculated).
g. Frequency of measureable results < 5% (no UTL for blanks calculated).

Table 3-5

Quantitative Risk Assessments - Subsurface Soil COCs

---------- RISK_GRP=118/132/AOC-A METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8150	2,4,5-TP (Silvex)	mg/kg	7	2	ND	0.01	0.0025	0.005
SW8150	2,4-D	mg/kg	7	2	ND	0.074	0.04	0.0555
SW8080	4,4'-DDD	mg/kg	11	8	ND	0.0108	0.0028	0.0045
SW8080	4,4'-DDE	mg/kg	11	7	ND	0.0039	0.0013	0.002
SW8080	4,4'-DDT	mg/kg	11	6	ND	0.0511	0.0075	0.0159
SW8240	Acetone	mg/kg	15	15	0.0107	2.4	0.3417	0.6382
SW8080	Aldrin	mg/kg	11	8	ND	0.0341	0.0052	0.0109
SW8240	Carbon disulfide	mg/kg	15	3	ND	0.12	0.0154	0.0287
SW8240	Chloromethane	mg/kg	15	3	ND	0.24	0.0175	0.0455
SW8140	Chlorpyrifos (Dursban)	mg/kg	6	6	0.0023	2.7	0.4578	1.3615
SW8270	Chrysene	ug/kg	2	1	ND	71.5	55.512	156.46
SW8140	Diazinon	mg/kg	6	6	0.0009	0.0329	0.0074	0.0178
SW8150	Dicamba	mg/kg	7	5	ND	0.017	0.0034	0.0079
SW8150	Dichloroprop	mg/kg	7	7	0.0027	0.195	0.0613	0.1134
SW8080	Dieldrin	mg/kg	11	3	ND	0.0018	0.0003	0.0006
SW8080	Endosulfan I	mg/kg	11	5	ND	0.0014	0.0003	0.0005
SW8080	Endosulfan II	mg/kg	11	10	ND	0.021	0.0052	0.0087
SW8080	Endrin	mg/kg	11	8	ND	0.161	0.0183	0.0443
SW8080	Endrin Aldehyde	mg/kg	11	7	ND	0.0486	0.0079	0.0167
SW8240	Ethyl benzene	mg/kg	15	1	ND	0.014	0.0066	0.0088
SW8140	Fenthion	mg/kg	6	4	ND	0.0055	0.0027	0.0042
SW8270	Fluoranthene	ug/kg	2	1	ND	55.4	37.253	151.83
SW8270	Fluorene	ug/kg	2	1	ND	3110	2768	4927.1
SW8080	Heptachlor	mg/kg	11	4	ND	0.0014	0.0002	0.0004
SW8080	Heptachlor epoxide	mg/kg	11	9	ND	0.0061	0.0012	0.0023
E418.1	Hydrocarbons	mg/kg	15	15	3.24	18900	1999.6	4441.3
SW8150	MCPA	mg/kg	7	2	ND	15	5.1452	8.5072
SW8140	Merphos B	mg/kg	6	1	ND	0.0028	0.0021	0.0026

Table 3-5

Quantitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=118/132/AOC-A METHOD=Organics

(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Methoxychlor	mg/kg	11	4	ND	0.103	0.0155	0.0344
SW8140	Methyl azinphos	mg/kg	7	3	ND	0.27	0.0395	0.1141
SW8240	Methyl ethyl ketone	mg/kg	15	1	ND	0.3	0.1627	0.2042
SW8240	Methylene Chloride	mg/kg	15	8	ND	1.2	0.0819	0.2225
SW8140	Mevinphos	mg/kg	6	1	ND	0.0037	0.0029	0.0034
SW8140	Naled	mg/kg	6	6	0.0043	0.0163	0.0074	0.0111
SW8080	PCB-1260	mg/kg	2	2	0.406	0.639	0.5225	1.2581
SW8270	Phenanthrene	ug/kg	2	1	ND	4750	4004.2	8712.8
SW8140	Phorate	mg/kg	7	3	ND	0.027	0.0059	0.013
SW8270	Pyrene	ug/kg	2	2	211	265	238	408.47
SW8140	Sulprofos (Bolstar)	mg/kg	6	1	ND	0.0038	0.0013	0.0023
SW8240	Toluene	mg/kg	15	1	ND	0.009	0.0033	0.0045
SW8240	Xylene (total)	mg/kg	15	1	ND	0.077	0.0413	0.0528
SW8080	alpha-BHC	mg/kg	11	2	ND	0.0045	0.0007	0.0014
SW8080	delta-BHC	mg/kg	11	6	ND	0.0605	0.007	0.0168
SW8080	gamma-BHC	mg/kg	11	3	ND	0.0044	0.0006	0.0013

N = 44

Table 3-5
Quantitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=129/178 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7421	Lead	mg/kg	25	25	0.441	9.87	3.9202	4.7125

N = 1

RISK_GRP=129/178 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	7	7	0.0098	2.5	0.5309	1.2335
E418.1	Hydrocarbons	mg/kg	25	25	-5.17	62	3.0308	7.6957
SW8240	Methylene Chloride	mg/kg	7	4	ND	0.31	0.0455	0.1312

N = 3

RISK_GRP=164 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	4	4	0.44	1.02	0.76	1.0665
SW6010	Barium	mg/kg	4	4	55.6	64.2	61.7	66.502

Table 3-5
Quantitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=164 METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Cadmium	mg/kg	4	4	-0.14	0.237	0.0387	0.2322
SW6010	Chromium	mg/kg	4	4	7.68	13.7	9.82	13.134
SW7421	Lead	mg/kg	4	4	3.46	6.54	4.69	6.4012
SW7740	Selenium	mg/kg	4	4	0.497	2.36	1.1493	2.1604

N = 6

RISK_GRP=164 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Toluene	mg/kg	4	1	ND	0.0012	0.0007	0.0013

N = 1

Table 3-5

Quantitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=165/177/179/181 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Barium	mg/kg	36	36	18.8	143	47.567	54.911
SW6010	Cadmium	mg/kg	40	40	-0.225	30	1.8031	3.3652
SW6010	Chromium	mg/kg	40	40	3.2	188	14.394	22.626
SW6010	Silver	mg/kg	40	40	-1.18	2.4	0.1464	0.3705

N = 4

RISK_GRP=165/177/179/181 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	2-Methylnaphthalene	ug/kg	3	1	ND	6050	3489	8476.5
SW8270	4-Chloro-3-methylphenol	ug/kg	3	1	ND	4250	1875.7	5369.9
SW8270	Naphthalene	ug/kg	3	1	ND	1910	1733.7	2023.4
SW8270	bis(2-Ethylhexyl)phthalate	ug/kg	3	1	ND	19700	12274	30183
SW8270	p-Chloroaniline	ug/kg	3	1	ND	1690	1419.3	1814.7

N = 5

Table 3-5

Quantitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=54/55/21/22/123 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	22	22	-0.91	5.12	2.0161	2.7297
SW6010	Cadmium	mg/kg	27	27	-0.365	2	0.1668	0.3343
SW6010	Chromium	mg/kg	27	27	2	21.1	7.413	8.933
SW7471	Mercury	mg/kg	22	22	-0.065	0.0649	-0.005	0.006
SW7740	Selenium	mg/kg	22	22	-1.25	4.64	2.3179	2.9439

N = 5

RISK_GRP=54/55/21/22/123 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1-Dichloroethene	mg/kg	30	3	ND	7.21	0.4931	0.89
SW8240	2-Hexanone	mg/kg	30	2	ND	0.0068	0.0022	0.0026
SW8270	2-Methylnaphthalene	ug/kg	40	3	ND	4380	862	1074.8
SW8240	4-Methyl-2-Pentanone(MIBK)	mg/kg	30	3	ND	0.0058	0.0014	0.0017
SW8240	Acetone	mg/kg	30	19	ND	0.778	0.066	0.1178
SW8240	Benzene	mg/kg	39	4	ND	54	2.1778	4.5423
SW8240	Carbon disulfide	mg/kg	30	1	ND	0.0132	0.0066	0.0079
SW8270	Dibenzofuran	ug/kg	40	1	ND	471	276.99	308.81
SW8240	Ethyl benzene	mg/kg	39	8	ND	229	10.831	21.208
E418.1	Hydrocarbons	mg/kg	46	29	-4.76	5314.9	313.17	575.38
SW8240	Methyl ethyl ketone	mg/kg	30	4	ND	0.0098	0.0029	0.0036

Table 3-5

Quantitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=54/55/21/22/123 METHOD=Organics

(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Methylene Chloride	mg/kg	30	17	ND	0.02	0.0021	0.0033
SW8270	Naphthalene	ug/kg	40	1	ND	402	203.4	238.38
SW8240	Toluene	mg/kg	39	4	ND	345	10.967	25.866
SW8240	Trichloroethene	mg/kg	30	3	ND	0.0028	0.0012	0.0015
SW8240	Xylene (total)	mg/kg	39	8	ND	363	12.921	28.809

N = 16

ND = Not detected.

NC = Not calculated. UCL cannot be calculated with only one site result.

a. Random uniform numbers between zero and the minimum result substituted for non-detected values.

b. One-sided 95% upper confidence limit for the mean.

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=040/128/138 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	8	8	0.264	2.76	1.525125	2.1129154
SW6010	Barium	mg/kg	8	8	16.2	82.2	47.7	63.504692
SW6010	Cadmium	mg/kg	8	8	-0.202	0.32	0.07975	0.1784345
SW6010	Chromium	mg/kg	8	8	2.52	8.87	5.92125	7.6181163
SW7471	Mercury	mg/kg	8	8	-0.0493	0.0259	-0.008826	0.0065093
SW7740	Selenium	mg/kg	8	8	0.598	4.57	2.9485	3.8641102

N = 6

RISK_GRP=040/128/138 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	8	8	0.00731	0.983	0.2258138	0.4541701
SW8240	Chloromethane	mg/kg	8	1	ND	0.00851	0.0066385	0.0079907
SW8240	Methylene Chloride	mg/kg	8	7	ND	0.0226	0.0067531	0.0118365

N = 3

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=119/2 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	8	8	-0.242	4.63	1.40075	2.5112118
SW6010	Barium	mg/kg	8	8	26.8	125	54.35	76.275604
SW6010	Cadmium	mg/kg	8	8	0.139	0.511	0.30075	0.3747562
SW6010	Chromium	mg/kg	8	8	4.88	21.9	10.78625	15.657779
SW7471	Mercury	mg/kg	8	8	-0.013	0.0263	0.0019725	0.0101235
SW7740	Selenium	mg/kg	8	8	2.86	26.4	6.5475	11.962424

N = 6

RISK_GRP=119/2 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	2-Methylnaphthalene	ug/kg	2	2	424	503	463.5	712.89318
SW8270	Acenaphthene	ug/kg	2	2	20.2	40.1	30.15	92.971828
SW8240	Acetone	mg/kg	8	8	0.0125	0.578	0.1212	0.2569676
SW8270	Dibenzofuran	ug/kg	2	2	35	90.1	62.55	236.49385
SW8270	Dibutylphthalate	ug/kg	2	2	63.3	184	123.65	504.6849
SW8240	Ethyl benzene	mg/kg	8	2	ND	0.0126	0.0032247	0.0059016
SW8270	Fluoranthene	ug/kg	2	1	ND	11.8	11.515758	13.310393
SW8270	Fluorene	ug/kg	2	1	ND	82.4	78.811794	101.46683
SW8240	Methyl ethyl ketone	mg/kg	8	8	0.00676	0.0466	0.0175175	0.0280078
SW8240	Methylene Chloride	mg/kg	8	7	ND	0.00522	0.0037034	0.0045809

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=119/2 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Naphthalene	ug/kg	2	2	28.5	47.2	37.85	96.883577
SW8270	Phenanthrene	ug/kg	2	2	61.9	162	111.95	427.95326
SW8270	Pyrene	ug/kg	2	1	ND	15.1	14.232255	19.710983
SW8240	Toluene	mg/kg	8	2	ND	0.0306	0.0054777	0.0123091
SW8240	Xylene (total)	mg/kg	8	2	ND	0.0456	0.0083203	0.0185136

N = 15

RISK_GRP=120/15 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	4	4	0.97	3.65	1.935	3.321705
SW6010	Barium	mg/kg	4	4	42.1	69.3	52.125	66.41038
SW6010	Cadmium	mg/kg	4	4	-0.0156	0.107	0.054175	0.1256172
SW6010	Chromium	mg/kg	4	4	5.56	9.08	7.28	8.9915765
SW7421	Lead	mg/kg	4	4	2.11	7.37	4.3525	7.1619924
SW7740	Selenium	mg/kg	4	4	1.38	2.95	2.1075	2.9851276

N = 6

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=120/15 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
E418.1	Hydrocarbons	mg/kg	4	4	1.51	36	25.2025	43.944225
SW8240	Methylene Chloride	mg/kg	4	2	ND	0.00371	0.0028305	0.0039034

N = 2

RISK_GRP=121/17 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	6	6	0.109	1.97	0.9298333	1.4615721
SW6010	Cadmium	mg/kg	6	6	-0.0558	0.0935	0.01252	0.061421
SW6010	Chromium	mg/kg	6	6	3.4	5.82	5.16	5.9331241
SW7421	Lead	mg/kg	6	6	1.15	83.6	33.833333	63.872533
SW7740	Selenium	mg/kg	6	6	1.94	3.2	2.5733333	2.9738726

N = 5

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=121/17 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	6	6	0.0232	0.392	0.1404667	0.2607089
SW8240	Carbon disulfide	mg/kg	6	1	ND	0.00379	0.0029633	0.0036279
E418.1	Hydrocarbons	mg/kg	6	6	-5.59	358	101.38167	226.21623
SW8240	Methyl ethyl ketone	mg/kg	6	2	ND	0.0277	0.0074488	0.0156774
SW8240	Methylene Chloride	mg/kg	6	5	ND	0.0124	0.005018	0.0084406

N = 5

RISK_GRP=125/32 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	8	8	3.16	7.18	4.935	5.8738069
SW6010	Cadmium	mg/kg	8	8	0.13	0.869	0.453125	0.6068448
SW6010	Chromium	mg/kg	8	8	3.36	9.12	7.19125	8.3892751
SW7421	Lead	mg/kg	8	8	1.95	116	27.38375	54.800683
SW7740	Selenium	mg/kg	8	8	0.851	2.06	1.671375	1.9392665

N = 5

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=125/32 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	2-Hexanone	mg/kg	8	1	ND	0.00714	0.0044587	0.0055625
SW8270	2-Methylnaphthalene	ug/kg	7	1	ND	16	9.7860563	12.960765
SW8240	4-Methyl-2-Pentanone(MIBK)	mg/kg	8	1	ND	0.00542	0.0029023	0.0043218
SW8240	Acetone	mg/kg	8	8	0.00842	0.0759	0.0265475	0.0465535
SW8270	Anthracene	ug/kg	7	2	ND	12.5	4.5396672	8.0499823
SW8240	Benzene	mg/kg	8	1	ND	0.000972	0.0005413	0.0007564
SW8270	Benzo(a)anthracene	ug/kg	7	2	ND	44.4	24.546581	35.10091
SW8270	Benzo(a)pyrene	ug/kg	7	2	ND	78	43.627051	59.932684
SW8270	Benzo(b)fluoranthene	ug/kg	7	2	ND	147	86.656472	117.02229
SW8270	Benzo(g,h,i)perylene	ug/kg	7	1	ND	31.7	17.600566	26.356914
SW8270	Benzo(k)fluoranthene	ug/kg	7	2	ND	147	82.306127	116.71437
SW8240	Carbon disulfide	mg/kg	8	2	ND	0.00366	0.0010964	0.0018116
SW8270	Chrysene	ug/kg	7	2	ND	61.4	36.669273	50.177115
SW8240	Ethyl benzene	mg/kg	8	1	ND	0.000335	0.000172	0.0002507
SW8270	Fluoranthene	ug/kg	7	3	ND	59.3	22.538838	40.682838
E418.1	Hydrocarbons	mg/kg	8	8	11	734	335.5875	544.09153
SW8270	Indeno(1,2,3-cd)pyrene	ug/kg	7	1	ND	27	13.701005	20.356421
SW8240	Methylene Chloride	mg/kg	8	6	ND	0.00889	0.0042525	0.0060656
SW8270	Phenanthrene	ug/kg	7	3	ND	32.8	13.461239	21.816973
SW8270	Pyrene	ug/kg	7	3	ND	94.8	33.394131	56.912685
SW8240	Toluene	mg/kg	8	3	ND	0.000958	0.0004072	0.0006105
SW8240	Trichloroethene	mg/kg	8	1	ND	0.000844	0.0005715	0.0007195

N = 22

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=126/36 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	9	9	0.339	1.4	0.902	1.0709718
SW6010	Cadmium	mg/kg	9	9	-0.00963	0.203	0.0699956	0.1235088
SW6010	Chromium	mg/kg	9	9	4.15	8.17	6.1466667	6.9335397
SW7421	Lead	mg/kg	9	9	1.9	13.6	3.9533333	6.2579583
SW7740	Selenium	mg/kg	9	9	0.0204	3.02	1.8749111	2.6439387

N = 5

RISK_GRP=126/36 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	9	9	0.0136	0.965	0.2270444	0.4372231
E418.1	Hydrocarbons	mg/kg	9	9	-11.5	5030	574.69111	1610.7142
SW8240	Methylene Chloride	mg/kg	9	5	ND	0.0168	0.004043	0.0072022

N = 3

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=136 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	4	4	0.686	3.48	1.889	3.2683153
SW6010	Barium	mg/kg	4	4	35	96.6	67.975	102.69441
SW6010	Cadmium	mg/kg	4	4	-0.0158	0.202	0.12755	0.2429561
SW6010	Chromium	mg/kg	4	4	4.11	13.3	7.94	12.845272
SW7421	Lead	mg/kg	4	4	1.55	9.55	4.405	8.6098827
SW7740	Selenium	mg/kg	4	4	0.615	2.57	1.60825	2.8135299

N = 6

RISK_GRP=136 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1,1-Trichloroethane	mg/kg	3	1	ND	6.23	3.8624512	8.5950917
SW8240	1,1-Dichloroethane	mg/kg	3	1	ND	0.0386	0.0253202	0.0447862
SW8240	1,1-Dichloroethene	mg/kg	3	1	ND	0.456	0.2566595	0.5814446
SW8270	2-Methylnaphthalene	ug/kg	1	1	48500	48500	48500	NC
SW8270	Acenaphthene	ug/kg	1	1	2150	2150	2150	NC
SW8240	Acetone	mg/kg	3	3	0.00905	2.36	0.7995167	3.0778763
SW8270	Anthracene	ug/kg	1	1	1020	1020	1020	NC
SW8240	Benzene	mg/kg	3	1	ND	0.00474	0.0033964	0.0054057
SW8240	Carbon disulfide	mg/kg	3	1	ND	0.0209	0.0086747	0.0267484
SW8270	Chrysene	ug/kg	1	1	296	296	296	NC

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=136 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Dibenzofuran	ug/kg	1	1	5190	5190	5190	NC
SW8240	Ethyl benzene	mg/kg	3	1	ND	1.27	0.8641302	1.8862648
SW8270	Fluoranthene	ug/kg	1	1	413	413	413	NC
SW8270	Fluorene	ug/kg	1	1	4440	4440	4440	NC
E418.1	Hydrocarbons	mg/kg	4	4	-5.31	9360	3382.0225	8603.8195
SW8240	Methyl ethyl ketone	mg/kg	3	1	ND	0.0859	0.0666774	0.0952731
SW8240	Methylene Chloride	mg/kg	3	2	ND	0.0131	0.0113415	0.0139194
SW8270	Naphthalene	ug/kg	1	1	4920	4920	4920	NC
SW8270	Phenanthrene	ug/kg	1	1	11800	11800	11800	NC
SW8270	Pyrene	ug/kg	1	1	1290	1290	1290	NC
SW8240	Toluene	mg/kg	3	1	ND	0.7	0.3525682	0.8988648
SW8240	Xylene (total)	mg/kg	3	1	ND	9.27	7.9783456	10.725368

N = 22

RISK_GRP=155 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	3	3	0.737	2.99	1.6056667	3.6485692
SW6010	Barium	mg/kg	3	3	42	60	53.066667	69.395395
SW6010	Beryllium	mg/kg	3	3	0.117	0.193	0.145	0.2154033

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=155 METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Cadmium	mg/kg	3	3	-0.168	0.0964	-0.0439	0.1802215
SW6010	Chromium	mg/kg	3	3	5.3	8.48	6.57	9.4087006
SW6010	Cobalt	mg/kg	3	3	1.63	2.08	1.7833333	2.2165465
SW6010	Copper	mg/kg	3	3	2.48	5.93	3.7333333	6.9510785
SW7421	Lead	mg/kg	3	3	2.52	8.13	4.7166667	9.7681104
SW7471	Mercury	mg/kg	3	3	-0.0143	0.0357	0.0171333	0.0632766
SW7740	Selenium	mg/kg	3	3	1.82	2.28	2.11	2.5354904
SW6010	Silver	mg/kg	3	3	0.238	3.42	1.3076667	4.3917421
SW9030	Sulfide	mg/kg	3	3	-13.8	80.1	26.966667	108.15073
SW6010	Vanadium	mg/kg	3	3	14.5	21.3	18.266667	24.097709
SW6010	Zinc	mg/kg	3	3	8.96	31.4	17.086667	38.047915

N = 14

RISK_GRP=155 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1-Dichloroethene	mg/kg	3	1	ND	0.0898	0.0465157	0.1124712
SW8270	1,4-Dichlorobenzene	ug/kg	3	1	ND	94.8	45.659319	117.75105
SW8270	2-Methylnaphthalene	ug/kg	3	1	ND	11300	5663.0549	15036.284
SW8080	4,4'-DDD	mg/kg	3	1	ND	0.285	0.2057662	0.3244349

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

---------- RISK_GRP=155 METHOD=Organics ----------

(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8270	Acenaphthene	ug/kg	3	1	ND	221	139.51445	312.54986
SW8270	Anthracene	ug/kg	3	1	ND	53.7	45.810821	61.915627
SW8240	Benzene	mg/kg	3	2	ND	0.00934	0.0033925	0.0120898
SW8240	Carbon disulfide	mg/kg	3	1	ND	0.053	0.0258745	0.0668726
SW8270	Chrysene	ug/kg	3	1	ND	65.1	52.368525	77.481126
SW8150	Dicamba	mg/kg	3	1	ND	0.000937	0.0004293	0.0011853
SW8240	Ethyl benzene	mg/kg	3	1	ND	0.878	0.517601	1.067138
SW8270	Fluoranthene	ug/kg	3	1	ND	66.3	46.961538	84.22752
SW8270	Fluorene	ug/kg	3	1	ND	1080	736.38624	1319.489
SW8080	Heptachlor epoxide	mg/kg	3	1	ND	0.00611	0.0032634	0.0078182
SW8240	Methylene Chloride	mg/kg	3	1	ND	0.00542	0.002821	0.0074006
SW8140	Naled	mg/kg	3	2	ND	0.00778	0.0052127	0.0103006
SW8270	Naphthalene	ug/kg	3	1	ND	1700	1176.2971	2217.635
SW8270	Phenanthrene	ug/kg	3	1	ND	948	472.41788	1221.4277
SW8270	Pyrene	ug/kg	3	1	ND	77.3	48.438469	115.31642
SW8240	Toluene	mg/kg	3	1	ND	0.0508	0.037247	0.0753081
SW8240	Xylene (total)	mg/kg	3	1	ND	2.09	1.4135807	2.4317497
SW8080	gamma-Chlordane	mg/kg	3	1	ND	0.00862	0.0077268	0.0097744

N = 22

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=156 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	11	11	-0.769	6.26	2.4048182	3.5482044
SW6010	Barium	mg/kg	11	11	18.9	86.7	50.609091	61.492298
SW6010	Beryllium	mg/kg	11	11	0.0589	1.87	0.5051727	0.7686193
SW6010	Cadmium	mg/kg	11	11	-0.0992	0.7	0.2281727	0.3509515
SW6010	Chromium	mg/kg	11	11	3.88	17.6	10.490909	12.89309
SW6010	Cobalt	mg/kg	11	11	1.17	4.04	2.5509091	3.0257315
SW6010	Copper	mg/kg	11	11	1.79	8.07	4.8527273	5.8410637
SW7421	Lead	mg/kg	11	11	0.783	14.8	6.6948182	8.75998
SW7471	Mercury	mg/kg	11	11	-0.0513	0.0494	-0.007036	0.00929
SW7740	Selenium	mg/kg	11	11	-2.07	2.81	1.0427	1.8515781
SW9030	Sulfide	mg/kg	11	11	-30.3	29	0.8733636	11.125817
SW6010	Vanadium	mg/kg	11	11	12.2	25.7	18.6	21.14907
SW6010	Zinc	mg/kg	11	11	3.19	49.5	22.89	29.430547

N = 13

RISK_GRP=156 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8150	2,4,5-T	mg/kg	11	8	ND	0.0133	0.005687	0.0074244
SW8270	2-Methylnaphthalene	ug/kg	11	1	ND	47	26.388939	34.27374
SW8080	4,4'-DDD	mg/kg	11	8	ND	0.183	0.0207039	0.0503734

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=156 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	4,4'-DDE	mg/kg	11	5	ND	0.0276	0.0052417	0.0106156
SW8080	4,4'-DDT	mg/kg	11	4	ND	0.0449	0.0041638	0.0115471
SW8080	Aldrin	mg/kg	11	1	ND	0.000667	0.000362	0.0005168
SW8240	Carbon disulfide	mg/kg	11	1	ND	0.0194	0.0094686	0.0135692
SW8270	Dibenzofuran	ug/kg	11	1	ND	16.7	6.4327919	9.7113448
SW8150	Dichloroprop	mg/kg	11	11	0.00789	0.0992	0.0304427	0.0458105
SW8150	Dinoseb	mg/kg	11	1	ND	0.00829	0.0057495	0.0072611
SW8080	Endrin	mg/kg	11	1	ND	0.000342	0.0001868	0.0002469
SW8080	Endrin Aldehyde	mg/kg	11	3	ND	0.00295	0.0004611	0.0009189
SW8015	Ethanol	mg/kg	11	5	ND	2.1	1.3498685	1.7731164
SW8140	Ethoprop	mg/kg	11	8	ND	0.0266	0.0099603	0.0150862
SW8140	Fensulfothion	mg/kg	11	7	ND	0.0263	0.0056445	0.0095645
SW8080	Heptachlor	mg/kg	11	1	ND	5.4E-6	3.1143E-6	4.0012E-6
SW8080	Heptachlor epoxide	mg/kg	11	6	ND	0.000633	0.00012	0.0002284
SW8140	Methyl azinphos	mg/kg	11	1	ND	0.00403	0.0018731	0.0025315
SW8140	Methyl parathion	mg/kg	11	2	ND	0.0377	0.0059138	0.0117422
SW8240	Methylene Chloride	mg/kg	11	2	ND	0.00458	0.0016097	0.0023141
SW8140	Naled	mg/kg	11	7	ND	0.0612	0.0190113	0.0310497
SW8270	Phenanthrene	ug/kg	11	1	ND	30.3	15.306769	21.138548
SW7841	Thallium	mg/kg	11	11	0.0788	0.762	0.2812091	0.391663
SW8080	alpha-Chlordane	mg/kg	11	2	ND	0.0101	0.0047382	0.0062977
SW8080	delta-BHC	mg/kg	11	2	ND	0.00622	0.0009712	0.0019329
SW8080	gamma-Chlordane	mg/kg	11	4	ND	0.0152	0.0024998	0.0055244
SW8240	trans-1,2-Dichloroethene	mg/kg	11	1	ND	0.00553	0.0035854	0.0046739

N = 27

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=56 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	3	3	0.41	1.01	0.7686667	1.3026472
SW6010	Barium	mg/kg	3	3	24.3	84.6	51	102.8172
SW6010	Cadmium	mg/kg	3	3	-0.0362	0.226	0.1279333	0.3690801
SW6010	Chromium	mg/kg	3	3	4.85	14.4	8.95	17.237737
SW7421	Lead	mg/kg	3	3	1.19	6.1	3.7666667	7.920659
SW7740	Selenium	mg/kg	3	3	0.642	2.34	1.3906667	2.8516338

N = 6

RISK_GRP=56 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	1,1,1-Trichloroethane	mg/kg	4	1	ND	0.953	0.4514946	0.8789782
SW8240	1,1-Dichloroethane	mg/kg	4	2	ND	0.0672	0.0366935	0.0700155
SW8240	Acetone	mg/kg	4	4	0.0266	0.733	0.231175	0.6285691
SW8240	Benzene	mg/kg	4	2	ND	0.00613	0.0026399	0.0054363
SW8240	Carbon disulfide	mg/kg	4	1	ND	0.00539	0.003128	0.0058209
SW8240	Ethyl benzene	mg/kg	4	1	ND	0.26	0.1691185	0.2560201
E418.1	Hydrocarbons	mg/kg	3	3	-2.07	408	143.44333	530.33807
SW8240	Methyl ethyl ketone	mg/kg	4	2	ND	0.0459	0.0139642	0.0392036
SW8240	Methylene Chloride	mg/kg	4	4	0.00169	0.0349	0.0145975	0.0313276
SW8240	Toluene	mg/kg	4	1	ND	0.156	0.0812173	0.1512451

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=56 METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Xylene (total)	mg/kg	4	1	ND	0.992	0.6236576	0.9866196

N = 11

RISK_GRP=63 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	1	1	4.36	4.36	4.36	NC
SW6010	Barium	mg/kg	1	1	55.3	55.3	55.3	NC
SW6010	Cadmium	mg/kg	1	1	0.0495	0.0495	0.0495	NC
SW6010	Chromium	mg/kg	1	1	8.75	8.75	8.75	NC
SW7421	Lead	mg/kg	1	1	5.13	5.13	5.13	NC
SW7740	Selenium	mg/kg	1	1	0.759	0.759	0.759	NC

N = 6

Table 3-6
Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=71 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	2	2	0.00256	0.443	0.22278	1.6131944
SW6010	Barium	mg/kg	2	2	33.8	41.7	37.75	62.689318
SW6010	Cadmium	mg/kg	2	2	0.0266	0.16	0.0933	0.5144272
SW6010	Chromium	mg/kg	2	2	4.26	9.6	6.93	23.787717
SW7421	Lead	mg/kg	2	2	1.47	25.1	13.285	87.881974
SW7740	Selenium	mg/kg	2	2	2.09	2.51	2.3	3.6258878

N = 6

RISK_GRP=71 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8015	Ethanol	mg/kg	2	2	2.19	2.46	2.325	3.1773565
SW8240	Methylene Chloride	mg/kg	2	1	ND	0.00554	0.0030282	0.0188873

N = 2

Table 3-6

Qualitative Risk Assessments - Subsurface Soil COCs

RISK_GRP=78 METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	4	4	3.05	4.03	3.6225	4.1606416
SW6010	Cadmium	mg/kg	4	4	-0.0174	0.3	0.1272	0.28194
SW6010	Chromium	mg/kg	4	4	3.37	5.33	4.35	5.3706202
SW7740	Selenium	mg/kg	4	4	1.63	3.62	2.4975	3.4707315

N = 4

RISK_GRP=78 METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8240	Acetone	mg/kg	4	4	0.00752	0.0597	0.030755	0.0578107
E418.1	Hydrocarbons	mg/kg	4	4	7.75	22.8	11.5425	20.37358
SW8240	Methylene Chloride	mg/kg	4	2	ND	0.0138	0.0050635	0.0122119

N = 3

ND = Not detected.

NC = Not calculated. UCL cannot be calculated with only one site result.

a. Random uniform numbers between zero and the minimum result substituted for non-detected values.

b. One-sided 95% upper confidence limit for the mean.

Attachment B.1: Groundwater Raw Data For COPCs

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,1-Trichloroethane ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.005	0.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	0.005	0.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	0.005	0.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	0.020	0.020	DET	.005	mg/L	@

N = 4

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,2,2-Tetrachloroethane -

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,2-Trichloroethane ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1-Dichloroethane -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0023	.0023	DET	.005	mg/L	J

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1-Dichloroethene -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichlorobenzene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	.	.000018866	ND
Holloman Table 2	T	SW8020	.0000204	.000020400	DET
Holloman Table 2	T	SW8020	.	.000017349	ND
Holloman Table 2	T	SW8020	.	.000020382	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.0002520	mg/L	
Holloman Table 2	T	SW8020	.0002520	mg/L	PBJ
Holloman Table 2	T	SW8020	.0002520	mg/L	
Holloman Table 2	T	SW8020	.0000784	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichloroethane -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichloroethane -----
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichloropropane ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,3-Dichlorobenzene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	.0000355	.000035500	DET
Holloman Table 2	T	SW8020	.0000579	.000057900	DET
Holloman Table 2	T	SW8020	.	.000010543	ND
Holloman Table 2	T	SW8020	.0000372	.000037200	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.000078	mg/L	KJ
Holloman Table 2	T	SW8020	.000078	mg/L	PJ
Holloman Table 2	T	SW8020	.000078	mg/L	
Holloman Table 2	T	SW8020	.000078	mg/L	J

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,4-Dichlorobenzene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	.0003850	.00038500	DET
Holloman Table 2	T	SW8020	.	.00002560	ND
Holloman Table 2	T	SW8020	.0001160	.00011600	DET
Holloman Table 2	T	SW8020	.0000421	.00004210	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.0000711	mg/L	
Holloman Table 2	T	SW8020	.0003720	mg/L	
Holloman Table 2	T	SW8020	.0000711	mg/L	
Holloman Table 2	T	SW8020	.0000711	mg/L	KJ

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4,5-T ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8150	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8150	.00020	.00020	DET	.00020	mg/L	
Holloman 29 Sites	T	SW8150	.00020	.00020	DET	.00020	mg/L	

N = 4

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4,5-TP (Silvex) -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.00016	.00016	DET	.00016	mg/L	
Holloman 29 Sites	T	SW8150	.00016	.00016	DET	.00016	mg/L	
Holloman 29 Sites	T	SW8150	.00017	.00017	DET	.00017	mg/L	
Holloman 29 Sites	T	SW8150	.00017	.00017	DET	.00017	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4-D ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.0011	.0011	DET	.0011	mg/L	
Holloman 29 Sites	T	SW8150	.0011	.0011	DET	.0011	mg/L	
Holloman 29 Sites	T	SW8150	.0012	.0012	DET	.0012	mg/L	
Holloman 29 Sites	T	SW8150	.0012	.0012	DET	.0012	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4-DB ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.00086	.00086	DET	.00086	mg/L	
Holloman 29 Sites	T	SW8150	.00086	.00086	DET	.00086	mg/L	
Holloman 29 Sites	T	SW8150	.00093	.00093	DET	.00093	mg/L	
Holloman 29 Sites	T	SW8150	.00091	.00091	DET	.00091	mg/L	

N = 4

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Chloroethyl vinyl ether -

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Hexanone ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDD ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000098	.0000098000	DET
Holloman Table 2	T	SW8080	.	.0000067915	ND
Holloman Table 2	T	SW8080	.	.0000062554	ND
Holloman Table 2	T	SW8080	.	.0000023652	ND
Holloman Table 2	T	SW8080	.	.0000031619	ND
Holloman Table 2	T	SW8080	.	.0000009176	ND
Holloman Table 2	T	SW8080	.	.0000058838	ND
Holloman Table 2	T	SW8080	.	.0000025362	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000098	mg/L	
Holloman Table 2	T	SW8080	.0002420	mg/L	
Holloman Table 2	T	SW8080	.0002420	mg/L	
Holloman Table 2	T	SW8080	.0002420	mg/L	
Holloman Table 2	T	SW8080	.0000157	mg/L	
Holloman Table 2	T	SW8080	.0002420	mg/L	
Holloman Table 2	T	SW8080	.0002420	mg/L	
Holloman Table 2	T	SW8080	.0005330	mg/L	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDE ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDE ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.000009500	DET
Holloman 29 Sites	T	SW8080	.0000098	.000009800	DET
Holloman Table 2	T	SW8080	.	.000003191	ND
Holloman Table 2	T	SW8080	.	.000007459	ND
Holloman Table 2	T	SW8080	.0000360	.000036000	DET
Holloman Table 2	T	SW8080	.	.000004617	ND
Holloman Table 2	T	SW8080	.	.000003449	ND
Holloman Table 2	T	SW8080	.	.000004272	ND
Holloman Table 2	T	SW8080	.	.000008396	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000098	mg/L	
Holloman Table 2	T	SW8080	.0000495	mg/L	
Holloman Table 2	T	SW8080	.0000495	mg/L	
Holloman Table 2	T	SW8080	.0000495	mg/L	PJ
Holloman Table 2	T	SW8080	.0000107	mg/L	
Holloman Table 2	T	SW8080	.0000495	mg/L	
Holloman Table 2	T	SW8080	.0000495	mg/L	
Holloman Table 2	T	SW8080	.0001090	mg/L	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDT ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.000019	.000019	DET	.000019	mg/L	
Holloman 29 Sites	T	SW8080	.000019	.000019	DET	.000019	mg/L	
Holloman 29 Sites	T	SW8080	.000019	.000019	DET	.000019	mg/L	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDT ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.000018	.000018000	DET
Holloman Table 2	T	SW8080	.	.000002386	ND
Holloman Table 2	T	SW8080	.	.000007941	ND
Holloman Table 2	T	SW8080	.	.000001149	ND
Holloman Table 2	T	SW8080	.	.000014270	ND
Holloman Table 2	T	SW8080	.	.000007850	ND
Holloman Table 2	T	SW8080	.	.000006821	ND
Holloman Table 2	T	SW8080	.	.000004049	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000200	mg/L	JC
Holloman Table 2	T	SW8080	.0000707	mg/L	
Holloman Table 2	T	SW8080	.0000707	mg/L	
Holloman Table 2	T	SW8080	.0000646	mg/L	
Holloman Table 2	T	SW8080	.0000139	mg/L	
Holloman Table 2	T	SW8080	.0000707	mg/L	
Holloman Table 2	T	SW8080	.0000707	mg/L	
Holloman Table 2	T	SW8080	.0001560	mg/L	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Acetone ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Aldrin ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000098	.0000098000	DET
Holloman Table 2	T	SW8080	.	.0000016399	ND
Holloman Table 2	T	SW8080	.	.0000090423	ND
Holloman Table 2	T	SW8080	.	.0000086726	ND
Holloman Table 2	T	SW8080	.	.0000084081	ND
Holloman Table 2	T	SW8080	.	.0000060972	ND
Holloman Table 2	T	SW8080	.	.0000050637	ND
Holloman Table 2	T	SW8080	.	.0000062326	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000980	mg/L	
Holloman Table 2	T	SW8080	.00002420	mg/L	
Holloman Table 2	T	SW8080	.00002420	mg/L	
Holloman Table 2	T	SW8080	.00004140	mg/L	
Holloman Table 2	T	SW8080	.00000891	mg/L	
Holloman Table 2	T	SW8080	.00004140	mg/L	
Holloman Table 2	T	SW8080	.00002420	mg/L	
Holloman Table 2	T	SW8080	.00005330	mg/L	

N = 11

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Benzene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.000386	.000386	DET	.0000832	mg/L	B
Holloman Table 2	T	SW8020	.000205	.000205	DET	.0000832	mg/L	B
Holloman Table 2	T	SW8020	.000206	.000206	DET	.0000832	mg/L	B
Holloman Table 2	T	SW8020	.000066	.000066	DET	.0000832	mg/L	J
Holloman 29 Sites	T	SW8240	.002300	.002300	DET	.0050000	mg/L	J
Holloman 29 Sites	T	SW8240	.005000	.005000	DET	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.005000	.005000	DET	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.005000	.005000	DET	.0050000	mg/L	

N = 8

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Bromodichloromethane ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Bromomethane --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Carbon disulfide ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Carbon tetrachloride ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlordane ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.000047	.000047000	DET
Holloman 29 Sites	T	SW8080	.000047	.000047000	DET
Holloman 29 Sites	T	SW8080	.000048	.000048000	DET
Holloman 29 Sites	T	SW8080	.000049	.000049000	DET
Holloman Table 2	T	SW8080	.	.000030343	ND
Holloman Table 2	T	SW8080	.	.000044570	ND
Holloman Table 2	T	SW8080	.	.000022847	ND
Holloman Table 2	T	SW8080	.	.000044895	ND
Holloman Table 2	T	SW8080	.	.000017021	ND
Holloman Table 2	T	SW8080	.	.000018689	ND
Holloman Table 2	T	SW8080	.	.000039501	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000470	mg/L	
Holloman 29 Sites	T	SW8080	.0000470	mg/L	
Holloman 29 Sites	T	SW8080	.0000480	mg/L	
Holloman 29 Sites	T	SW8080	.0000490	mg/L	
Holloman Table 2	T	SW8080	.0003030	mg/L	
Holloman Table 2	T	SW8080	.0003030	mg/L	
Holloman Table 2	T	SW8080	.0003030	mg/L	
Holloman Table 2	T	SW8080	.0000652	mg/L	
Holloman Table 2	T	SW8080	.0003030	mg/L	
Holloman Table 2	T	SW8080	.0003030	mg/L	
Holloman Table 2	T	SW8080	.0006670	mg/L	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloride ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	250	250	DET	1.3	mg/L	
Holloman 29 Sites	T	E300.1	490	490	DET	1.3	mg/L	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloride ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	430	430	DET	1.3	mg/L	
Holloman 29 Sites	T	E300.1	300	300	DET	1.3	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorobenzene -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	0.019000	0.019000	DET
Holloman Table 2	T	SW8020	0.004370	0.004370	DET
Holloman Table 2	T	SW8020	0.000959	0.000959	DET
Holloman Table 2	T	SW8020	0.000240	0.000240	DET
Holloman 29 Sites	T	SW8240	0.063000	0.063000	DET
Holloman 29 Sites	T	SW8240	0.001300	0.001300	DET
Holloman 29 Sites	T	SW8240	0.005000	0.005000	DET
Holloman 29 Sites	T	SW8240	0.005000	0.005000	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.0000802	mg/L	
Holloman Table 2	T	SW8020	.0000802	mg/L	
Holloman Table 2	T	SW8020	.0000802	mg/L	
Holloman Table 2	T	SW8020	.0000802	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	J
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	

N = 8

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroethane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroform ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.0022	.0022	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0013	.0013	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.0017	.0017	DET	.005	mg/L	J

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloromethane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dalapon ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.0055	.0055	DET	.0055	mg/L	
Holloman 29 Sites	T	SW8150	.0055	.0055	DET	.0055	mg/L	
Holloman 29 Sites	T	SW8150	.0059	.0059	DET	.0059	mg/L	
Holloman 29 Sites	T	SW8150	.0058	.0058	DET	.0058	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Demeton O ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8140	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8140	.00048	.00048	DET	.00048	mg/L	
Holloman 29 Sites	T	SW8140	.00049	.00049	DET	.00049	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Demeton S ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8140	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8140	.00048	.00048	DET	.00048	mg/L	
Holloman 29 Sites	T	SW8140	.00049	.00049	DET	.00049	mg/L	

N = 4

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dibromochloromethane ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dicamba ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.00026	.00026	DET	.00026	mg/L	
Holloman 29 Sites	T	SW8150	.00026	.00026	DET	.00026	mg/L	
Holloman 29 Sites	T	SW8150	.00028	.00028	DET	.00028	mg/L	
Holloman 29 Sites	T	SW8150	.00027	.00027	DET	.00027	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dichloroprop --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.00062	.00062	DET	.00062	mg/L	
Holloman 29 Sites	T	SW8150	.00062	.00062	DET	.00062	mg/L	
Holloman 29 Sites	T	SW8150	.00066	.00066	DET	.00066	mg/L	
Holloman 29 Sites	T	SW8150	.00065	.00065	DET	.00065	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dieldrin ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0001500	.00015000	DET
Holloman 29 Sites	T	SW8080	.0000095	.00000950	DET
Holloman 29 Sites	T	SW8080	.0000095	.00000950	DET
Holloman 29 Sites	T	SW8080	.0000098	.00000980	DET
Holloman Table 2	T	SW8080	.0001180	.00011800	DET
Holloman Table 2	T	SW8080	.	.00000791	ND
Holloman Table 2	T	SW8080	.	.00000338	ND
Holloman Table 2	T	SW8080	.	.00000469	ND
Holloman Table 2	T	SW8080	.	.00000640	ND
Holloman Table 2	T	SW8080	.	.00000477	ND
Holloman Table 2	T	SW8080	.	.00000802	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	C
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000098	mg/L	
Holloman Table 2	T	SW8080	.0000566	mg/L	P
Holloman Table 2	T	SW8080	.0000566	mg/L	
Holloman Table 2	T	SW8080	.0000566	mg/L	
Holloman Table 2	T	SW8080	.0000122	mg/L	
Holloman Table 2	T	SW8080	.0000566	mg/L	
Holloman Table 2	T	SW8080	.0000566	mg/L	
Holloman Table 2	T	SW8080	.0001240	mg/L	

N = 11

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dimethoate ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dinoseb ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8150	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8150	.00015	.00015	DET	.00015	mg/L	
Holloman 29 Sites	T	SW8150	.00015	.00015	DET	.00015	mg/L	

N = 4

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Disulfoton ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	
Holloman 29 Sites	T	SW8140	.00019	.00019	DET	.00019	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan I --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.000009500	DET
Holloman 29 Sites	T	SW8080	.0000095	.000009500	DET
Holloman 29 Sites	T	SW8080	.0000095	.000009500	DET
Holloman 29 Sites	T	SW8080	.0000098	.000009800	DET
Holloman Table 2	T	SW8080	.	.000002353	ND
Holloman Table 2	T	SW8080	.0000320	.000032000	DET
Holloman Table 2	T	SW8080	.	.000006440	ND
Holloman Table 2	T	SW8080	.	.000005288	ND
Holloman Table 2	T	SW8080	.0000276	.000027600	DET
Holloman Table 2	T	SW8080	.	.000001577	ND
Holloman Table 2	T	SW8080	.	.000008365	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000980	mg/L	
Holloman Table 2	T	SW8080	.00004850	mg/L	
Holloman Table 2	T	SW8080	.00003540	mg/L	KJ
Holloman Table 2	T	SW8080	.00004850	mg/L	
Holloman Table 2	T	SW8080	.00000761	mg/L	
Holloman Table 2	T	SW8080	.00003540	mg/L	KJ
Holloman Table 2	T	SW8080	.00004850	mg/L	
Holloman Table 2	T	SW8080	.0001070D	mg/L	

N = 11

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan II -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.000028	.000028	DET	.000028	mg/L	
Holloman 29 Sites	T	SW8080	.000028	.000028	DET	.000028	mg/L	

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan II -------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.000029	.000029000	DET
Holloman 29 Sites	T	SW8080	.000029	.000029000	DET
Holloman Table 2	T	SW8080	.	.000009105	ND
Holloman Table 2	T	SW8080	.	.000000675	ND
Holloman Table 2	T	SW8080	.	.000017437	ND
Holloman Table 2	T	SW8080	.	.000007488	ND
Holloman Table 2	T	SW8080	.	.000027937	ND
Holloman Table 2	T	SW8080	.	.000024477	ND
Holloman Table 2	T	SW8080	.	.000019386	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000290	mg/L	
Holloman 29 Sites	T	SW8080	.0000290	mg/L	
Holloman Table 2	T	SW8080	.0001820	mg/L	
Holloman Table 2	T	SW8080	.0001820	mg/L	
Holloman Table 2	T	SW8080	.0001820	mg/L	
Holloman Table 2	T	SW8080	.0000391	mg/L	
Holloman Table 2	T	SW8080	.0000455	mg/L	
Holloman Table 2	T	SW8080	.0001820	mg/L	
Holloman Table 2	T	SW8080	.0004000	mg/L	

N = 11

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan Sulfate -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.000047	.000047	DET	.000047	mg/L	
Holloman 29 Sites	T	SW8080	.000047	.000047	DET	.000047	mg/L	
Holloman 29 Sites	T	SW8080	.000048	.000048	DET	.000048	mg/L	

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan Sulfate -----
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000490	.00004900	DET
Holloman Table 2	T	SW8080	.	.00000936	ND
Holloman Table 2	T	SW8080	.	.00001160	ND
Holloman Table 2	T	SW8080	.	.00002876	ND
Holloman Table 2	T	SW8080	.	.00003369	ND
Holloman Table 2	T	SW8080	.0000476	.00004760	DET
Holloman Table 2	T	SW8080	.	.00000534	ND
Holloman Table 2	T	SW8080	.0001450	.00014500	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000490	mg/L	
Holloman Table 2	T	SW8080	.0001310	mg/L	
Holloman Table 2	T	SW8080	.0001410	mg/L	
Holloman Table 2	T	SW8080	.0001410	mg/L	
Holloman Table 2	T	SW8080	.0000283	mg/L	
Holloman Table 2	T	SW8080	.0001310	mg/L	KJ
Holloman Table 2	T	SW8080	.0001310	mg/L	
Holloman Table 2	T	SW8080	.0002890	mg/L	KJ

N = 11

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET
Holloman 29 Sites	T	SW8080	.0000130	.0000130	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000098	mg/L	X@

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8080	.	.00000536	ND	.0001720	mg/L	
Holloman Table 2	T	SW8080	.	.00000651	ND	.0001720	mg/L	
Holloman Table 2	T	SW8080	.	.00000218	ND	.0001720	mg/L	
Holloman Table 2	T	SW8080	.	.00000698	ND	.0000207	mg/L	
Holloman Table 2	T	SW8080	.000275	.00027500	DET	.0001720	mg/L	
Holloman Table 2	T	SW8080	.	.00000536	ND	.0001720	mg/L	
Holloman Table 2	T	SW8080	.	.00000491	ND	.0003780	mg/L	

N = 11

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin Aldehyde ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000190	.00001900	DET
Holloman 29 Sites	T	SW8080	.0000190	.00001900	DET
Holloman 29 Sites	T	SW8080	.0000190	.00001900	DET
Holloman 29 Sites	T	SW8080	.0000200	.00002000	DET
Holloman Table 2	T	SW8080	.0000292	.00002920	DET
Holloman Table 2	T	SW8080	.0002620	.00026200	DET
Holloman Table 2	T	SW8080	.0000560	.00005600	DET
Holloman Table 2	T	SW8080	.0002170	.00021700	DET
Holloman Table 2	T	SW8080	.0000326	.00003260	DET
Holloman Table 2	T	SW8080	.	.00001664	ND
Holloman Table 2	T	SW8080	.0001100	.00011000	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000190	mg/L	
Holloman 29 Sites	T	SW8080	.0000190	mg/L	
Holloman 29 Sites	T	SW8080	.0000190	mg/L	
Holloman 29 Sites	T	SW8080	.0000200	mg/L	
Holloman Table 2	T	SW8080	.0001110	mg/L	J
Holloman Table 2	T	SW8080	.0001110	mg/L	
Holloman Table 2	T	SW8080	.0000919	mg/L	PJ
Holloman Table 2	T	SW8080	.0000239	mg/L	
Holloman Table 2	T	SW8080	.0001110	mg/L	PJ
Holloman Table 2	T	SW8080	.0001110	mg/L	
Holloman Table 2	T	SW8080	.0002440	mg/L	J

N = 11

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin Ketone -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.000047	.000047	DET	.000047	mg/L	
Holloman 29 Sites	T	SW8080	.000047	.000047	DET	.000047	mg/L	
Holloman 29 Sites	T	SW8080	.000048	.000048	DET	.000048	mg/L	
Holloman 29 Sites	T	SW8080	.000049	.000049	DET	.000049	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethyl benzene -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	.0000608	.0000608	DET
Holloman Table 2	T	SW8020	.0000469	.0000469	DET
Holloman Table 2	T	SW8020	.0000729	.0000729	DET
Holloman Table 2	T	SW8020	.0000206	.0000206	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.0000813	mg/L	KBJ
Holloman Table 2	T	SW8020	.0000813	mg/L	KBJ
Holloman Table 2	T	SW8020	.0000813	mg/L	KBJ
Holloman Table 2	T	SW8020	.0000813	mg/L	KJ
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	

N = 8

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethyl parathion ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8140	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8140	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8140	.00015	.00015	DET	.00015	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Famphur ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8140	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8140	.00048	.00048	DET	.00048	mg/L	
Holloman 29 Sites	T	SW8140	.00049	.00049	DET	.00049	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fensulfothion -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.0014	.0014	DET	.0014	mg/L	
Holloman 29 Sites	T	SW8140	.0014	.0014	DET	.0014	mg/L	
Holloman 29 Sites	T	SW8140	.0014	.0014	DET	.0014	mg/L	
Holloman 29 Sites	T	SW8140	.0015	.0015	DET	.0015	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fluoride ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E340.2	3.1	3.1	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	3.0	3.0	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	1.8	1.8	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	2.2	2.2	DET	0.1	mg/L	

N = 4

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000098	.0000098000	DET
Holloman Table 2	T	SW8080	.	.0000032730	ND
Holloman Table 2	T	SW8080	.	.0000007057	ND
Holloman Table 2	T	SW8080	.	.0000009836	ND
Holloman Table 2	T	SW8080	.	.0000034075	ND
Holloman Table 2	T	SW8080	.	.0000075285	ND
Holloman Table 2	T	SW8080	.	.0000052932	ND
Holloman Table 2	T	SW8080	.	.0000090179	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000980	mg/L	
Holloman Table 2	T	SW8080	.00002930	mg/L	
Holloman Table 2	T	SW8080	.00002930	mg/L	
Holloman Table 2	T	SW8080	.00002930	mg/L	
Holloman Table 2	T	SW8080	.00000565	mg/L	
Holloman Table 2	T	SW8080	.00002930	mg/L	
Holloman Table 2	T	SW8080	.00002930	mg/L	
Holloman Table 2	T	SW8080	.00006440	mg/L	

N = 11

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor epoxide -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000095	mg/L	

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor epoxide -----
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000120	.00001200	DET
Holloman 29 Sites	T	SW8080	.0000800	.00008000	DET
Holloman Table 2	T	SW8080	.	.00000703	ND
Holloman Table 2	T	SW8080	.	.00000769	ND
Holloman Table 2	T	SW8080	.	.00000333	ND
Holloman Table 2	T	SW8080	.0000201	.00002010	DET
Holloman Table 2	T	SW8080	.0000125	.00001250	DET
Holloman Table 2	T	SW8080	.0000315	.00003150	DET
Holloman Table 2	T	SW8080	.0002020	.00020200	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00000950	mg/L	X@
Holloman 29 Sites	T	SW8080	.00000980	mg/L	X
Holloman Table 2	T	SW8080	.00002420	mg/L	
Holloman Table 2	T	SW8080	.00002420	mg/L	
Holloman Table 2	T	SW8080	.00002420	mg/L	
Holloman Table 2	T	SW8080	.00000717	mg/L	
Holloman Table 2	T	SW8080	.00003330	mg/L	KJ
Holloman Table 2	T	SW8080	.00003330	mg/L	KJ
Holloman Table 2	T	SW8080	.00007330	mg/L	P

N = 11

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPA ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	0.24	0.24	DET	0.24	mg/L	
Holloman 29 Sites	T	SW8150	0.24	0.24	DET	0.24	mg/L	
Holloman 29 Sites	T	SW8150	0.25	0.25	DET	0.25	mg/L	

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPA ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	0.25	0.25	DET	0.25	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPP ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8150	0.18	0.18	DET	0.18	mg/L	
Holloman 29 Sites	T	SW8150	0.18	0.18	DET	0.18	mg/L	
Holloman 29 Sites	T	SW8150	0.20	0.20	DET	0.20	mg/L	
Holloman 29 Sites	T	SW8150	0.19	0.19	DET	0.19	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methoxychlor --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.000047	.000047000	DET
Holloman 29 Sites	T	SW8080	.000047	.000047000	DET
Holloman 29 Sites	T	SW8080	.000048	.000048000	DET
Holloman 29 Sites	T	SW8080	.000049	.000049000	DET
Holloman Table 2	T	SW8080	.	.000029422	ND
Holloman Table 2	T	SW8080	.	.000039757	ND
Holloman Table 2	T	SW8080	.	.000010010	ND
Holloman Table 2	T	SW8080	.	.000009214	ND
Holloman Table 2	T	SW8080	.	.000027597	ND
Holloman Table 2	T	SW8080	.	.000029573	ND
Holloman Table 2	T	SW8080	.	.000030977	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000470	mg/L	
Holloman 29 Sites	T	SW8080	.0000470	mg/L	
Holloman 29 Sites	T	SW8080	.0000480	mg/L	
Holloman 29 Sites	T	SW8080	.0000490	mg/L	
Holloman Table 2	T	SW8080	.0003940	mg/L	
Holloman Table 2	T	SW8080	.0003940	mg/L	
Holloman Table 2	T	SW8080	.0003940	mg/L	
Holloman Table 2	T	SW8080	.0000848	mg/L	
Holloman Table 2	T	SW8080	.0003940	mg/L	
Holloman Table 2	T	SW8080	.0003940	mg/L	
Holloman Table 2	T	SW8080	.0008670	mg/L	

N = 11

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl azinphos ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.0014	.0014	DET	.0014	mg/L	
Holloman 29 Sites	T	SW8140	.0014	.0014	DET	.0014	mg/L	

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl azinphos ------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.0014	.0014	DET	.0014	mg/L	
Holloman 29 Sites	T	SW8140	.0015	.0015	DET	.0015	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl ethyl ketone ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	

N = 4

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl parathion ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.000019	.000019	DET	.000028	mg/L	J
Holloman 29 Sites	T	SW8140	.000028	.000028	DET	.000028	mg/L	
Holloman 29 Sites	T	SW8140	.000029	.000029	DET	.000029	mg/L	
Holloman 29 Sites	T	SW8140	.000029	.000029	DET	.000029	mg/L	

N = 4

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methylene Chloride -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.0059	0.0059	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	0.0050	0.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	0.0100	0.0100	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	0.0180	0.0180	DET	.005	mg/L	@

N = 4

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Nitrate-Nitrite as N ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E353.1	4.4	4.4	DET	0.044	mg/L	
Holloman 29 Sites	T	E353.1	9.1	9.1	DET	0.110	mg/L	
Holloman 29 Sites	T	E353.1	4.9	4.9	DET	0.089	mg/L	
Holloman 29 Sites	T	E353.1	9.5	9.5	DET	0.110	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Phorate ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8140	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8140	.00014	.00014	DET	.00014	mg/L	
Holloman 29 Sites	T	SW8140	.00015	.00015	DET	.00015	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ronnel ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00028	.00028	DET	.00028	mg/L	
Holloman 29 Sites	T	SW8140	.00028	.00028	DET	.00028	mg/L	
Holloman 29 Sites	T	SW8140	.00029	.00029	DET	.00029	mg/L	
Holloman 29 Sites	T	SW8140	.00029	.00029	DET	.00029	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Styrene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Sulfate ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	2100	2100	DET	2.5	mg/L	
Holloman 29 Sites	T	E300.1	2300	2300	DET	2.5	mg/L	
Holloman 29 Sites	T	E300.1	2100	2100	DET	2.5	mg/L	
Holloman 29 Sites	T	E300.1	2800	2800	DET	2.5	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Sulfotepp ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.000095	.000095	DET	.000095	mg/L	
Holloman 29 Sites	T	SW8140	.000095	.000095	DET	.000095	mg/L	
Holloman 29 Sites	T	SW8140	.000096	.000096	DET	.000096	mg/L	
Holloman 29 Sites	T	SW8140	.000097	.000097	DET	.000097	mg/L	

N = 4

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tetrachloroethene -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Thionazin ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00095	.00095	DET	.00095	mg/L	
Holloman 29 Sites	T	SW8140	.00095	.00095	DET	.00095	mg/L	
Holloman 29 Sites	T	SW8140	.00096	.00096	DET	.00096	mg/L	
Holloman 29 Sites	T	SW8140	.00097	.00097	DET	.00097	mg/L	

N = 4

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toluene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	.0000269	.0000269	DET
Holloman Table 2	T	SW8020	.0000769	.0000769	DET
Holloman Table 2	T	SW8020	.0001500	.0001500	DET
Holloman Table 2	T	SW8020	.0000390	.0000390	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET
Holloman 29 Sites	T	SW8240	.0050000	.0050000	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.0000451	mg/L	PJ
Holloman Table 2	T	SW8020	.0000813	mg/L	BJ
Holloman Table 2	T	SW8020	.0000813	mg/L	B
Holloman Table 2	T	SW8020	.0000813	mg/L	KJ
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	
Holloman 29 Sites	T	SW8240	.0050000	mg/L	

N = 8

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Total dissolved solids ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E160.1	3800	3800	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	4700	4700	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	4000	4000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	4500	4500	DET	10	mg/L	

N = 4

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Total phosphorus ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E365.2	0.11	0.11	DET	0.02	mg/L	

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Total phosphorus ------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E365.2	0.24	0.24	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.40	0.40	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.30	0.30	DET	0.02	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Total xylenes -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman Table 2	T	SW8020	.0000248	.000024800	DET
Holloman Table 2	T	SW8020	.	.000020990	ND
Holloman Table 2	T	SW8020	.0000284	.000028400	DET
Holloman Table 2	T	SW8020	.0000401	.000040100	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman Table 2	T	SW8020	.0000609	mg/L	PJ
Holloman Table 2	T	SW8020	.0000609	mg/L	
Holloman Table 2	T	SW8020	.0000609	mg/L	PJ
Holloman Table 2	T	SW8020	.0000811	mg/L	KBJ

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toxaphene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00047	.00047	DET	.00047	mg/L	
Holloman 29 Sites	T	SW8080	.00047	.00047	DET	.00047	mg/L	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toxaphene ---------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00048	.00048000	DET	.000480	mg/L	
Holloman 29 Sites	T	SW8080	.00049	.00049000	DET	.000490	mg/L	
Holloman Table 2	T	SW8080	.	.00024728	ND	.001010	mg/L	
Holloman Table 2	T	SW8080	.	.00041361	ND	.001010	mg/L	
Holloman Table 2	T	SW8080	.	.00044167	ND	.001010	mg/L	
Holloman Table 2	T	SW8080	.	.00030862	ND	.000217	mg/L	
Holloman Table 2	T	SW8080	.	.00023235	ND	.001010	mg/L	
Holloman Table 2	T	SW8080	.	.00028567	ND	.001010	mg/L	
Holloman Table 2	T	SW8080	.	.00042456	ND	.002220	mg/L	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tribromomethane(Bromoform)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Trichloroethene ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.0042	0.0042	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	0.0230	0.0230	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	0.0150	0.0150	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	0.0081	0.0081	DET	.005	mg/L	@

N = 4

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Vinyl Chloride -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

------- SWMUs Group=118/132/AOC-A Method=Drganics Analyte=Vinyl acetate -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Xylene (total) -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=alpha-BHC ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL
Holloman 29 Sites	T	SW8080	.0015000	.0015000	DET	.00019000
Holloman 29 Sites	T	SW8080	.0000220	.0000220	DET	.00000950
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET	.00000950
Holloman 29 Sites	T	SW8080	.0000098	.0000098	DET	.00000980
Holloman Table 2	T	SW8080	.	.0000034	ND	.00002020
Holloman Table 2	T	SW8080	.	.0000025	ND	.00002020
Holloman Table 2	T	SW8080	.	.0000010	ND	.00002020
Holloman Table 2	T	SW8080	.	.0000018	ND	.00000435
Holloman Table 2	T	SW8080	.	.0000034	ND	.00002020
Holloman Table 2	T	SW8080	.	.0000013	ND	.00002020
Holloman Table 2	T	SW8080	.	.0000010	ND	.00004440

Data Source	Dis-solved or Total	Method	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	mg/L	CD
Holloman 29 Sites	T	SW8080	mg/L	X@
Holloman 29 Sites	T	SW8080	mg/L	
Holloman 29 Sites	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	
Holloman Table 2	T	SW8080	mg/L	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=beta-BHC ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0001100	.0001100	DET
Holloman 29 Sites	T	SW8080	.0000095	.0000095	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	C
Holloman 29 Sites	T	SW8080	.0000095	mg/L	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=beta-BHC ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0000095	.0000095000	DET
Holloman 29 Sites	T	SW8080	.0000098	.0000098000	DET
Holloman Table 2	T	SW8080	.	.0000020640	ND
Holloman Table 2	T	SW8080	.	.0000036532	ND
Holloman Table 2	T	SW8080	.	.0000031929	ND
Holloman Table 2	T	SW8080	.	.0000050362	ND
Holloman Table 2	T	SW8080	.	.0000093598	ND
Holloman Table 2	T	SW8080	.	.0000070800	ND
Holloman Table 2	T	SW8080	.	.0000078819	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0000095	mg/L	
Holloman 29 Sites	T	SW8080	.0000098	mg/L	
Holloman Table 2	T	SW8080	.0004750	mg/L	
Holloman Table 2	T	SW8080	.0004750	mg/L	
Holloman Table 2	T	SW8080	.0004750	mg/L	
Holloman Table 2	T	SW8080	.0001020	mg/L	
Holloman Table 2	T	SW8080	.0004750	mg/L	
Holloman Table 2	T	SW8080	.0004750	mg/L	
Holloman Table 2	T	SW8080	.0010400	mg/L	

N = 11

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=cis-1,3-Dichloropropene --

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=cis-1,3-Dichloropropene --
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=delta-BHC ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0002200	.00022000	DET
Holloman 29 Sites	T	SW8080	.0000095	.00000950	DET
Holloman 29 Sites	T	SW8080	.0000095	.00000950	DET
Holloman 29 Sites	T	SW8080	.0000098	.00000980	DET
Holloman Table 2	T	SW8080	.	.00000681	ND
Holloman Table 2	T	SW8080	.	.00000060	ND
Holloman Table 2	T	SW8080	.	.00000726	ND
Holloman Table 2	T	SW8080	.	.00000646	ND
Holloman Table 2	T	SW8080	.	.00000816	ND
Holloman Table 2	T	SW8080	.	.00000217	ND
Holloman Table 2	T	SW8080	.	.00000747	ND

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.00000950	mg/L	C
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000950	mg/L	
Holloman 29 Sites	T	SW8080	.00000980	mg/L	
Holloman Table 2	T	SW8080	.00001820	mg/L	
Holloman Table 2	T	SW8080	.00001820	mg/L	
Holloman Table 2	T	SW8080	.00001820	mg/L	
Holloman Table 2	T	SW8080	.00000391	mg/L	
Holloman Table 2	T	SW8080	.00001820	mg/L	
Holloman Table 2	T	SW8080	.00001820	mg/L	
Holloman Table 2	T	SW8080	.00004000	mg/L	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=gamma-BHC ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag
Holloman 29 Sites	T	SW8080	.0010000	.0010000	DET
Holloman 29 Sites	T	SW8080	.0001700	.0001700	DET
Holloman 29 Sites	T	SW8080	.0000170	.0000170	DET
Holloman 29 Sites	T	SW8080	.0000400	.0000400	DET
Holloman Table 2	T	SW8080	.0000960	.0000960	DET
Holloman Table 2	T	SW8080	.0000907	.0000907	DET
Holloman Table 2	T	SW8080	.0001160	.0001160	DET
Holloman Table 2	T	SW8080	.0001050	.0001050	DET
Holloman Table 2	T	SW8080	.	.0000064	ND
Holloman Table 2	T	SW8080	.	.0000146	ND
Holloman Table 2	T	SW8080	.0003720	.0003720	DET

Data Source	Dis-solved or Total	Method	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8080	.0001900	mg/L	CD
Holloman 29 Sites	T	SW8080	.0000095	mg/L	C
Holloman 29 Sites	T	SW8080	.0000095	mg/L	X@
Holloman 29 Sites	T	SW8080	.0000098	mg/L	X@
Holloman Table 2	T	SW8080	.0000232	mg/L	
Holloman Table 2	T	SW8080	.0000232	mg/L	
Holloman Table 2	T	SW8080	.0000232	mg/L	
Holloman Table 2	T	SW8080	.0000050	mg/L	
Holloman Table 2	T	SW8080	.0000384	mg/L	
Holloman Table 2	T	SW8080	.0000384	mg/L	
Holloman Table 2	T	SW8080	.0000511	mg/L	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=o,o,o-Triethylphosphorthioate

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00095	.00095	DET	.00095	mg/L	
Holloman 29 Sites	T	SW8140	.00095	.00095	DET	.00095	mg/L	

SWMUs Group=118/132/AOC-A Method=Organics Analyte=o,o,o-Triethylphosphorthioate (continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8140	.00096	.00096	DET	.00096	mg/L	
Holloman 29 Sites	T	SW8140	.00097	.00097	DET	.00097	mg/L	

N = 4

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,2-Dichloroethene --

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,3-Dichloropropene -

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Antimony ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	@

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Arsenic ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Beryllium ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	.0045	.0045	DET	.004	mg/L	@
Holloman 29 Sites	T	SW6010	.0040	.0040	DET	.004	mg/L	
Holloman 29 Sites	T	SW6010	.0040	.0040	DET	.004	mg/L	
Holloman 29 Sites	T	SW6010	.0040	.0040	DET	.004	mg/L	
Holloman 29 Sites	T	SW6010	.0020	.0020	DET	.002	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Cadmium ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.010	0.010	DET	0.010	mg/L	
Holloman 29 Sites	T	SW6010	0.010	0.010	DET	0.010	mg/L	
Holloman 29 Sites	T	SW6010	0.010	0.010	DET	0.010	mg/L	
Holloman 29 Sites	T	SW6010	0.010	0.010	DET	0.010	mg/L	
Holloman 29 Sites	T	SW6010	0.005	0.005	DET	0.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Chromium ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.048	0.048	DET	0.02	mg/L	@

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Chromium ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.01	0.01	DET	0.01	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Copper ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.04	0.04	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.04	0.04	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.04	0.04	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.04	0.04	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Lead ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW7421	0.01700	0.01700	DET	.00600	mg/L	Z@
Holloman 29 Sites	T	SW7421	0.00600	0.00600	DET	.00600	mg/L	Z
Holloman 29 Sites	T	SW7421	0.00600	0.00600	DET	.00600	mg/L	Z
Holloman 29 Sites	T	SW7421	0.00600	0.00600	DET	.00600	mg/L	Z
Holloman 29 Sites	T	SW7421	0.00760	0.00760	DET	.00600	mg/L	Z@
Holloman Table 2	T	SW7421	0.00169	0.00169	DET	.00080	mg/L	
Holloman Table 2	T	SW7421	-0.00042	-0.00042	DET	.00080	mg/L	J
Holloman Table 2	T	SW7421	0.00064	0.00064	DET	.00107	mg/L	J
Holloman Table 2	T	SW7421	0.00077	0.00077	DET	.00080	mg/L	J

N = 9

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Nickel ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.066	0.066	DET	0.04	mg/L	@
Holloman 29 Sites	T	SW6010	0.042	0.042	DET	0.04	mg/L	@
Holloman 29 Sites	T	SW6010	0.040	0.040	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.046	0.046	DET	0.04	mg/L	@
Holloman 29 Sites	T	SW6010	0.035	0.035	DET	0.02	mg/L	@

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Selenium ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW7740	0.011	0.011	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.012	0.012	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.014	0.014	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.017	0.017	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.017	0.017	DET	.005	mg/L	@

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Silver ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.01	0.01	DET	0.01	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Thallium ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Thallium ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.2	0.2	DET	0.2	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Zinc ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.170	0.170	DET	0.04	mg/L	@
Holloman 29 Sites	T	SW6010	0.059	0.059	DET	0.04	mg/L	@
Holloman 29 Sites	T	SW6010	0.040	0.040	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.040	0.040	DET	0.04	mg/L	
Holloman 29 Sites	T	SW6010	0.028	0.028	DET	0.02	mg/L	@

N = 5

------ SWMUs Group=129/178 Method=Organics Analyte=1,1,1-Trichloroethane ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---- SWMUs Group=129/178 Method=Organics Analyte=1,1,2,2-Tetrachloroethane ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

---- SWMUs Group=129/178 Method=Organics Analyte=1,1,2,2-Tetrachloroethane ----
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------ SWMUs Group=129/178 Method=Organics Analyte=1,1,2-Trichloroethane ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------- SWMUs Group=129/178 Method=Organics Analyte=1,1-Dichloroethane --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------- SWMUs Group=129/178 Method=Organics Analyte=1,1-Dichloroethene --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

------- SWMUs Group=129/178 Method=Organics Analyte=1,1-Dichloroethene -------- (continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------- SWMUs Group=129/178 Method=Organics Analyte=1,2-Dichloroethane --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------- SWMUs Group=129/178 Method=Organics Analyte=1,2-Dichloropropane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---- SWMUs Group=129/178 Method=Organics Analyte=2-Chloroethyl vinyl ether ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

---- SWMUs Group=129/178 Method=Organics Analyte=2-Chloroethyl vinyl ether ---- (continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=2-Hexanone ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	

N = 5

--- SWMUs Group=129/178 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK) ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Acetone ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	

---------- SWMUs Group=129/178 Method=Organics Analyte=Acetone ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.1000	0.1000	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.0076	0.0076	DET	0.1	mg/L	JB
Holloman 29 Sites	T	SW8240	0.0068	0.0068	DET	0.1	mg/L	JB
Holloman 29 Sites	T	SW8240	0.0029	0.0029	DET	0.1	mg/L	J

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Benzene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00075	.00075	DET	.005	mg/L	J

N = 5

------ SWMUs Group=129/178 Method=Organics Analyte=Bromodichloromethane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0015	.0015	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Bromomethane ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

---------- SWMUs Group=129/178 Method=Organics Analyte=Bromomethane ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 5

-------- SWMUs Group=129/178 Method=Organics Analyte=Carbon disulfide ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------ SWMUs Group=129/178 Method=Organics Analyte=Carbon tetrachloride -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloride ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	3900	3900	DET	26	mg/L	

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloride ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	3500	3500	DET	26	mg/L	
Holloman 29 Sites	T	E300.1	3300	3300	DET	26	mg/L	
Holloman 29 Sites	T	E300.1	3500	3500	DET	26	mg/L	
Holloman 29 Sites	T	E300.1	3000	3000	DET	26	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Chlorobenzene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloroethane ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloroform ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloroform ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.0031	.0031	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.0026	.0026	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.0015	.0015	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.0013	.0013	DET	.005	mg/L	J

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloromethane ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.0100	0.0100	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.0100	0.0100	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.0100	0.0100	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.0100	0.0100	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.0014	0.0014	DET	0.01	mg/L	J

N = 5

------ SWMUs Group=129/178 Method=Organics Analyte=Dibromochloromethane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

---------- SWMUs Group=129/178 Method=Organics Analyte=Ethyl benzene ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00035	.00035	DET	.005	mg/L	J

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Fluoride ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E340.2	2.2	2.2	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	2.6	2.6	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	2.1	2.1	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	2.8	2.8	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	1.9	1.9	DET	0.1	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E418.1	1.5400	1.5400	DET	0.200	mg/L	
Holloman 29 Sites	T	E418.1	1.3800	1.3800	DET	0.200	mg/L	
Holloman 29 Sites	T	E418.1	1.7100	1.7100	DET	0.200	mg/L	
Holloman 29 Sites	T	E418.1	2.6900	2.6900	DET	0.200	mg/L	
Holloman 29 Sites	T	E418.1	1.2500	1.2500	DET	0.200	mg/L	
Holloman Table 2	T	E418.1	-0.0875	-0.0875	DET	0.174	mg/L	J
Holloman Table 2	T	E418.1	-0.1400	-0.1400	DET	0.174	mg/L	J
Holloman Table 2	T	E418.1	-0.1360	-0.1360	DET	0.169	mg/L	J
Holloman Table 2	T	E418.1	-0.0879	-0.0879	DET	0.175	mg/L	J

N = 9

---------- SWMUs Group=129/178 Method=Organics Analyte=Mercury ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	

N = 5

------- SWMUs Group=129/178 Method=Organics Analyte=Methyl ethyl ketone -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	

N = 5

------- SWMUs Group=129/178 Method=Organics Analyte=Methylene Chloride --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.0027	0.0027	DET	.005	mg/L	JB
Holloman 29 Sites	T	SW8240	0.0130	0.0130	DET	.005	mg/L	B@
Holloman 29 Sites	T	SW8240	0.0120	0.0120	DET	.005	mg/L	B@
Holloman 29 Sites	T	SW8240	0.0160	0.0160	DET	.005	mg/L	B@
Holloman 29 Sites	T	SW8240	0.0015	0.0015	DET	.005	mg/L	JB

N = 5

------ SWMUs Group=129/178 Method=Organics Analyte=Nitrate-Nitrite as N -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E353.1	32	32	DET	0.44	mg/L	

------ SWMUs Group=129/178 Method=Organics Analyte=Nitrate-Nitrite as N -------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E353.1	29.000	29.000	DET	0.44	mg/L	
Holloman 29 Sites	T	E353.1	68.000	68.000	DET	2.20	mg/L	
Holloman 29 Sites	T	E353.1	97.000	97.000	DET	2.20	mg/L	
Holloman 29 Sites	T	E353.1	59.000	59.000	DET	2.20	mg/L	
Holloman Table 2	T	E353.1	31.900	31.900	DET	0.50	mg/L	
Holloman Table 2	T	E353.1	3.700	3.700	DET	0.05	mg/L	
Holloman Table 2	T	E353.1	29.200	29.200	DET	0.50	mg/L	
Holloman Table 2	T	E353.1	0.345	0.345	DET	0.02	mg/L	

N = 9

---------- SWMUs Group=129/178 Method=Organics Analyte=Styrene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Sulfate ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	2000	2000	DET	5	mg/L	
Holloman 29 Sites	T	E300.1	3000	3000	DET	5	mg/L	
Holloman 29 Sites	T	E300.1	3100	3100	DET	5	mg/L	
Holloman 29 Sites	T	E300.1	3700	3700	DET	5	mg/L	
Holloman 29 Sites	T	E300.1	3300	3300	DET	5	mg/L	

N = 5

-------- SWMUs Group=129/178 Method=Organics Analyte=Tetrachloroethene --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Toluene ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00028	.00028	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.00032	.00032	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	

N = 5

----- SWMUs Group=129/178 Method=Organics Analyte=Total dissolved solids ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E160.1	9800	9800	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	11000	11000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	10000	10000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	12000	12000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	11000	11000	DET	10	mg/L	

N = 5

-------- SWMUs Group=129/178 Method=Organics Analyte=Total phosphorus ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E365.2	0.35	0.35	DET	0.02	mg/L	

-------- SWMUs Group=129/178 Method=Drganics Analyte=Total phosphorus ---------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E365.2	0.22	0.22	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.29	0.29	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.18	0.18	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.20	0.20	DET	0.D2	mg/L	

N = 5

--- SWMUs Group=129/178 Method=Organics Analyte=Tribromomethane(Bromoform) ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET-	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

--------- SWMUs Group=129/178 Method=Organics Analyte=Trichloroethene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.0050	0.005D	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	0.0050	0.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	0.0240	0.0240	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	0.0019	0.0019	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	0.0050	0.0050	DET	.005	mg/L	

N = 5

--------- SWMUs Group=129/178 Method=Organics Analyte=Vinyl Chloride ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

--------- SWMUs Group=129/178 Method=Organics Analyte=Vinyl Chloride ----------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 5

---------- SWMUs Group=129/178 Method=Organics Analyte=Vinyl acetate ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

--------- SWMUs Group=129/178 Method=Organics Analyte=Xylene (total) ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

----- SWMUs Group=129/178 Method=Organics Analyte=cis-1,3-Dichloropropene -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

----- SWMUs Group=129/178 Method=Organics Analyte=cis-1,3-Dichloropropene -----
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---- SWMUs Group=129/178 Method=Organics Analyte=trans-1,2-Dichloroethene -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

---- SWMUs Group=129/178 Method=Organics Analyte=trans-1,3-Dichloropropene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 5

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Antimony --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Antimony --------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Arsenic --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	
Holloman 29 Sites	T	SW7060	0.016	0.016	DET	0.016	mg/L	

N = 4

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Beryllium -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	.0020	.0020	DET	.002	mg/L	
Holloman 29 Sites	T	SW6010	.0029	.0029	DET	.002	mg/L	@
Holloman 29 Sites	T	SW6010	.0025	.0025	DET	.002	mg/L	@
Holloman 29 Sites	T	SW6010	.0020	.0020	DET	.002	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Cadmium --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW6010	.0059	.0059	DET	.005	mg/L	@
Holloman 29 Sites	T	SW6010	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW6010	.0050	.0050	DET	.005	mg/L	

N = 4

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Chromium --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.010	0.010	DET	0.01	mg/L	
Holloman 29 Sites	T	SW6010	0.020	0.020	DET	0.01	mg/L	@
Holloman 29 Sites	T	SW6010	0.021	0.021	DET	0.01	mg/L	@
Holloman 29 Sites	T	SW6010	0.010	0.010	DET	0.01	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Copper ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.12	0.12	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.02	0.02	DET	0.02	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Lead ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW7421	0.0030	0.0030	DET	.003	mg/L	
Holloman 29 Sites	T	SW7421	0.0078	0.0078	DET	.003	mg/L	@
Holloman 29 Sites	T	SW7421	0.0110	0.0110	DET	.003	mg/L	@
Holloman 29 Sites	T	SW7421	0.0190	0.0190	DET	.003	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Nickel ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.020	0.020	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.030	0.030	DET	0.02	mg/L	@
Holloman 29 Sites	T	SW6010	0.038	0.038	DET	0.02	mg/L	@
Holloman 29 Sites	T	SW6010	0.020	0.020	DET	0.02	mg/L	

N = 4

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Selenium --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW7740	0.015	0.015	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.015	0.015	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.013	0.013	DET	.005	mg/L	@
Holloman 29 Sites	T	SW7740	0.005	0.005	DET	.005	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Silver ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW6010	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW6010	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW6010	0.01	0.01	DET	0.01	mg/L	

N = 4

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Thallium --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW6010	0.1	0.1	DET	0.1	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Zinc ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW6010	0.020	0.020	DET	0.02	mg/L	
Holloman 29 Sites	T	SW6010	0.071	0.071	DET	0.02	mg/L	@
Holloman 29 Sites	T	SW6010	0.058	0.058	DET	0.02	mg/L	@
Holloman 29 Sites	T	SW6010	0.024	0.024	DET	0.02	mg/L	@

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,1-Trichloroethane --

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	0.00373	0.00373	DET	0.0083	mg/L	KBJ
Holloman Table 2	T	SW8010	0.00084	0.00084	DET	0.0083	mg/L	KBJ
Holloman Table 2	T	SW8010	0.41800	0.41800	DET	0.0368	mg/L	
Holloman Table 2	T	SW8010	0.00176	0.00176	DET	0.0083	mg/L	KBJ
Holloman Table 2	T	SW8010	.	0.00018	ND	0.0030	mg/L	
Holloman Table 2	T	SW8010	.	0.00024	ND	0.0030	mg/L	
Holloman Table 2	T	SW8010	.	0.00024	ND	0.0030	mg/L	
Holloman Table 2	T	SW8010	.	0.00019	ND	0.0030	mg/L	
Holloman 29 Sites	T	SW8240	0.00500	0.00500	DET	0.0050	mg/L	
Holloman 29 Sites	T	SW8240	0.24000	0.24000	DET	0.0100	mg/L	D
Holloman 29 Sites	T	SW8240	0.00500	0.00500	DET	0.0050	mg/L	
Holloman 29 Sites	T	SW8240	0.00180	0.00180	DET	0.0050	mg/L	J

N = 12

SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,2,2-Tetrachloroethane

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,2-Trichloroethane --

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1-Dichloroethane ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	.	0.056663	ND	.00111	mg/L	
Holloman Table 2	T	SW8010	.	0.027263	ND	.00111	mg/L	
Holloman Table 2	T	SW8010	0.06540	0.065400	DET	.00555	mg/L	
Holloman Table 2	T	SW8010	.	0.029135	ND	.00111	mg/L	
Holloman Table 2	T	SW8010	.	0.003061	ND	.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.054220	ND	.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.024818	ND	.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.030341	ND	.00300	mg/L	
Holloman 29 Sites	T	SW8240	0.00500	0.005000	DET	.00500	mg/L	
Holloman 29 Sites	T	SW8240	0.00059	0.000590	DET	.00500	mg/L	J
Holloman 29 Sites	T	SW8240	0.00500	0.005000	DET	.00500	mg/L	
Holloman 29 Sites	T	SW8240	0.00500	0.005000	DET	.00500	mg/L	

N = 12

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1-Dichloroethene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0096	.0096	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,2-Dichloroethane ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,2-Dichloropropane ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Chloroethyl vinyl ether

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Hexanone --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	
Holloman 29 Sites	T	SW8240	0.05	0.05	DET	0.05	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Acetone ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.0240	0.0240	DET	0.1	mg/L	J
Holloman 29 Sites	T	SW8240	0.1000	0.1000	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.0035	0.0035	DET	0.1	mg/L	J
Holloman 29 Sites	T	SW8240	0.1000	0.1000	DET	0.1	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromodichloromethane ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromomethane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 4

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Carbon disulfide -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Carbon tetrachloride ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0058	.0058	DET	.005	mg/L	@
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.0050	.0050	DET	.005	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloride ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	2200	2200	DET	26.00	mg/L	
Holloman 29 Sites	T	E300.1	4200	4200	DET	26.00	mg/L	
Holloman 29 Sites	T	E300.1	4500	4500	DET	26.00	mg/L	
Holloman 29 Sites	T	E300.1	39	39	DET	0.26	mg/L	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chlorobenzene ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloroethane -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	.	0.000254	ND	0.00400	mg/L	
Holloman Table 2	T	SW8010	.	0.000084	ND	0.00400	mg/L	
Holloman Table 2	T	SW8010	.	0.000080	ND	0.02000	mg/L	
Holloman Table 2	T	SW8010	0.000442	0.000442	DET	0.00575	mg/L	KJ
Holloman Table 2	T	SW8010	.	0.000430	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000256	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000423	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000420	ND	0.00300	mg/L	
Holloman 29 Sites	T	SW8240	0.010000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.010000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.010000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.010000	0.010000	DET	0.01000	mg/L	

N = 12

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloroform --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.00035	.00035	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.00210	.00210	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.00081	.00081	DET	.005	mg/L	J
Holloman 29 Sites	T	SW8240	.00500	.00500	DET	.005	mg/L	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloromethane ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	0.002380	0.002380	DET	0.00755	mg/L	KJ
Holloman Table 2	T	SW8010	.	0.000540	ND	0.00755	mg/L	
Holloman Table 2	T	SW8010	.	0.000261	ND	0.03780	mg/L	
Holloman Table 2	T	SW8010	0.000761	0.000761	DET	0.00755	mg/L	KJ
Holloman Table 2	T	SW8010	.	0.000723	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000348	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000684	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000424	ND	0.00300	mg/L	
Holloman 29 Sites	T	SW8240	0.010000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.000720	0.000720	DET	0.01000	mg/L	J

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloromethane ------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	
Holloman 29 Sites	T	SW8240	0.01	0.01	DET	0.01	mg/L	

N = 12

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Dibromochloromethane ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Ethyl benzene ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Fluoride ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E340.2	1.80	1.80	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	1.50	1.50	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	1.90	1.90	DET	0.1	mg/L	
Holloman 29 Sites	T	E340.2	0.77	0.77	DET	0.1	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Mercury ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	
Holloman 29 Sites	T	E245.1	.0002	.0002	DET	.0002	mg/L	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Methyl ethyl ketone ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	
Holloman 29 Sites	T	SW8240	0.1	0.1	DET	0.1	mg/L	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Methylene Chloride ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	0.014	0.014	DET	.005	mg/L	B@
Holloman 29 Sites	T	SW8240	0.010	0.010	DET	.005	mg/L	B@
Holloman 29 Sites	T	SW8240	0.015	0.015	DET	.005	mg/L	B@
Holloman 29 Sites	T	SW8240	0.015	0.015	DET	.005	mg/L	B@

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Nitrate-Nitrite as N ---

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E353.1	48.00	48.00	DET	1.100	mg/L	
Holloman 29 Sites	T	E353.1	87.00	87.00	DET	1.100	mg/L	
Holloman 29 Sites	T	E353.1	49.00	49.00	DET	1.100	mg/L	
Holloman 29 Sites	T	E353.1	0.52	0.52	DET	0.022	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Styrene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Sulfate ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E300.1	4300.00	4300.00	DET	5.00	mg/L	
Holloman 29 Sites	T	E300.1	4400.00	4400.00	DET	5.00	mg/L	
Holloman 29 Sites	T	E300.1	3500.00	3500.00	DET	5.00	mg/L	
Holloman 29 Sites	T	E300.1	0.05	0.05	DET	0.05	mg/L	

N = 4

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Tetrachloroethene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	.	.0003311	ND	0.00375	mg/L	
Holloman Table 2	T	SW8010	.	.0000798	ND	0.00375	mg/L	
Holloman Table 2	T	SW8010	.002190	.0021900	DET	0.01900	mg/L	KJ
Holloman Table 2	T	SW8010	.000353	.0003530	DET	0.00380	mg/L	KJ
Holloman Table 2	T	SW8010	.	.0000966	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	.0003343	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	.0001432	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	.0002946	ND	0.00300	mg/L	
Holloman 29 Sites	T	SW8240	.000190	.0001900	DET	0.00500	mg/L	J
Holloman 29 Sites	T	SW8240	.001100	.0011000	DET	0.00500	mg/L	J
Holloman 29 Sites	T	SW8240	.000370	.0003700	DET	0.00500	mg/L	J
Holloman 29 Sites	T	SW8240	.005000	.0050000	DET	0.00500	mg/L	

N = 12

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Toluene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

- SWMUs Group=165/177/179/181 Method=Organics Analyte=Total dissolved solids --

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E160.1	11000	11000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	13000	13000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	14000	14000	DET	10	mg/L	
Holloman 29 Sites	T	E160.1	2600	2600	DET	10	mg/L	

N = 4

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Total phosphorus -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	E365.2	0.220	0.220	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.180	0.180	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.210	0.210	DET	0.02	mg/L	
Holloman 29 Sites	T	E365.2	0.093	0.093	DET	0.02	mg/L	@

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=Tribromomethane(Bromoform)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Trichloroethene -----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	0.24500	0.24500	DET	0.00366	mg/L	
Holloman Table 2	T	SW8010	0.59700	0.59700	DET	0.00366	mg/L	
Holloman Table 2	T	SW8010	2.73000	2.73000	DET	0.01830	mg/L	
Holloman Table 2	T	SW8010	0.32400	0.32400	DET	0.00366	mg/L	
Holloman Table 2	T	SW8010	0.03880	0.03880	DET	0.00300	mg/L	
Holloman Table 2	T	SW8010	0.02760	0.02760	DET	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.00232	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	0.00450	0.00450	DET	0.00300	mg/L	
Holloman 29 Sites	T	SW8240	0.00025	0.00025	DET	0.00500	mg/L	J
Holloman 29 Sites	T	SW8240	0.05900	0.05900	DET	0.00500	mg/L	
Holloman 29 Sites	T	SW8240	0.00270	0.00270	DET	0.00500	mg/L	J
Holloman 29 Sites	T	SW8240	0.00500	0.00500	DET	0.00500	mg/L	

N = 12

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl Chloride ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	.	0.001209	ND	0.00755	mg/L	
Holloman Table 2	T	SW8010	0.00383	0.003830	DET	0.00755	mg/L	KJ
Holloman Table 2	T	SW8010	.	0.000518	ND	0.03780	mg/L	
Holloman Table 2	T	SW8010	.	0.003385	ND	0.00755	mg/L	
Holloman Table 2	T	SW8010	.	0.003735	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000377	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.002319	ND	0.00300	mg/L	
Holloman Table 2	T	SW8010	.	0.000740	ND	0.00300	mg/L	
Holloman 29 Sites	T	SW8240	0.01000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.01000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.01000	0.010000	DET	0.01000	mg/L	
Holloman 29 Sites	T	SW8240	0.01000	0.010000	DET	0.01000	mg/L	

N = 12

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl acetate ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl acetate ------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Xylene (total) ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

- SWMUs Group=165/177/179/181 Method=Organics Analyte=cis-1,3-Dichloropropene -

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=trans-1,2-Dichloroethene

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	
Holloman 29 Sites	T	SW8240	.005	.005	DET	.005	mg/L	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=trans-1,3-Dichloropropene

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	SW8010	.000492	.0004920	DET	0.0036	mg/L	KJ
Holloman Table 2	T	SW8010	.	.0003879	ND	0.0036	mg/L	
Holloman Table 2	T	SW8010	.	.0003043	ND	0.0180	mg/L	
Holloman Table 2	T	SW8010	.	.0001463	ND	0.0036	mg/L	
Holloman Table 2	T	SW8010	.	.0002207	ND	0.0030	mg/L	
Holloman Table 2	T	SW8010	.	.0001996	ND	0.0030	mg/L	
Holloman Table 2	T	SW8010	.	.0002955	ND	0.0030	mg/L	
Holloman Table 2	T	SW8010	.	.0004058	ND	0.0030	mg/L	
Holloman 29 Sites	T	SW8240	.005000	.0050000	DET	0.0050	mg/L	
Holloman 29 Sites	T	SW8240	.005000	.0050000	DET	0.0050	mg/L	
Holloman 29 Sites	T	SW8240	.005000	.0050000	DET	0.0050	mg/L	
Holloman 29 Sites	T	SW8240	.005000	.0050000	DET	0.0050	mg/L	

N = 12

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Antimony --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.039	0.039000	DET	0.050	mg/L	
Walk Hydell	T	SW6010	0.059	0.059000	DET	0.050	mg/L	
Walk Hydell	T	SW6010	.	0.004006	ND	0.031	mg/L	
Walk Hydell	T	SW6010	.	0.021759	ND	0.031	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Arsenic --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.149	0.14900	DET	0.003	mg/L	
Walk Hydell	T	SW6010	.	0.07664	ND	0.100	mg/L	&
Walk Hydell	T	SW6010	.	0.12980	ND	0.100	mg/L	&
Walk Hydell	T	SW6010	.	0.03734	ND	0.001	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Barium ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.384	0.384	DET	0.02	mg/L	
Walk Hydell	T	SW6010	0.353	0.353	DET	0.02	mg/L	
Walk Hydell	T	SW6010	1.033	1.033	DET	0.02	mg/L	
Walk Hydell	T	SW6010	0.018	0.018	DET	0.02	mg/L	

N = 4

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Beryllium -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.011	0.011000	DET	.002	mg/L	
Walk Hydell	T	SW6010	0.012	0.012000	DET	.002	mg/L	
Walk Hydell	T	SW6010	0.015	0.015000	DET	.002	mg/L	
Walk Hydell	T	SW6010	.	0.009936	ND	.001	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Cadmium --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.010	0.010000	DET	.004	mg/L	
Walk Hydell	T	SW6010	0.005	0.005000	DET	.004	mg/L	
Walk Hydell	T	SW6010	0.007	0.007000	DET	.004	mg/L	
Walk Hydell	T	SW6010	.	0.001413	ND	.004	mg/L	

N = 4

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Chromium --------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.066	0.06600	DET	.008	mg/L	
Walk Hydell	T	SW6010	0.044	0.04400	DET	.008	mg/L	
Walk Hydell	T	SW6010	0.128	0.12800	DET	.008	mg/L	
Walk Hydell	T	SW6010	.	0.02136	ND	.007	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Copper ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.169	0.169	DET	.005	mg/L	
Walk Hydell	T	SW6010	0.146	0.146	DET	.005	mg/L	
Walk Hydell	T	SW6010	0.178	0.178	DET	.005	mg/L	
Walk Hydell	T	SW6010	0.007	0.007	DET	.005	mg/L	

N = 4

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Iron ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	48.080	48.080	DET	0.02	mg/L	
Walk Hydell	T	SW6010	27.379	27.379	DET	0.02	mg/L	
Walk Hydell	T	SW6010	103.664	103.664	DET	0.02	mg/L	
Walk Hydell	T	SW6010	0.053	0.053	DET	0.02	mg/L	

N = 4

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Lead ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.037	0.037000	DET	.0020	mg/L	
Walk Hydell	T	SW6010	0.087	0.087000	DET	.0020	mg/L	
Walk Hydell	T	SW6010	0.041	0.041000	DET	.0020	mg/L	
Walk Hydell	T	SW6010	.	0.011277	ND	.0009	mg/L	

N = 4

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Manganese -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	2.588	2.588	DET	.002	mg/L	
Walk Hydell	T	SW6010	0.173	0.173	DET	.002	mg/L	
Walk Hydell	T	SW6010	0.138	0.138	DET	.002	mg/L	
Walk Hydell	T	SW6010	0.012	0.012	DET	.002	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Nickel ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.175	0.17500	DET	0.015	mg/L	
Walk Hydell	T	SW6010	0.066	0.06600	DET	0.015	mg/L	
Walk Hydell	T	SW6010	0.127	0.12700	DET	0.015	mg/L	
Walk Hydell	T	SW6010	.	0.03275	ND	0.012	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Silver ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.007	0.007000	DET	0.010	mg/L	
Walk Hydell	T	SW6010	.	0.002209	ND	0.006	mg/L	
Walk Hydell	T	SW6010	0.032	0.032000	DET	0.010	mg/L	
Walk Hydell	T	SW6010	.	0.003376	ND	0.006	mg/L	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Sodium ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	1361.13	1361.13	DET	0.7	mg/L	
Walk Hydell	T	SW6010	335.70	335.70	DET	0.7	mg/L	
Walk Hydell	T	SW6010	3170.00	3170.00	DET	0.7	mg/L	
Walk Hydell	T	SW6010	1.82	1.82	DET	0.7	mg/L	

N = 4

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Zinc ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW6010	0.180	0.180	DET	.005	mg/L	
Walk Hydell	T	SW6010	0.107	0.107	DET	.005	mg/L	
Walk Hydell	T	SW6010	0.316	0.316	DET	.005	mg/L	
Walk Hydell	T	SW6010	0.024	0.024	DET	.005	mg/L	

N = 4

SWMUs Group=54/55/21/22/123 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	0.035073	ND	0.05	mg/L	
Walk Hydell	T	SW8240	.	0.003982	ND	0.05	mg/L	
Walk Hydell	T	SW8240	0.037	0.037000	DET	0.05	mg/L	
Walk Hydell	T	SW8240	.	0.029434	ND	0.05	mg/L	
Walk Hydell	T	SW8240	.	0.031632	ND	0.05	mg/L	
Walk Hydell	T	SW8240	.	0.011091	ND	5.00	mg/L	
Walk Hydell	T	SW8240	.	0.000102	ND	0.05	mg/L	
Walk Hydell	T	SW8240	.	0.009709	ND	0.05	mg/L	

N = 8

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Benzene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	0.01184	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.10866	ND	.005	mg/L	
Walk Hydell	T	SW8240	0.717	0.71700	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	0.50229	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.56193	ND	.005	mg/L	
Walk Hydell	T	SW8240	5.000	5.00000	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	0.68220	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.20837	ND	.005	mg/L	
Woodward Clyde	T	SW8240	.	0.55061	ND	.002	mg/L	UJ
Woodward Clyde	T	SW8240	.	0.60167	ND	.002	mg/L	U
Woodward Clyde	T	SW8240	.	0.70152	ND	.002	mg/L	UJ

N = 11

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Chlorobenzene ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	.0023105	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	.0024687	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.004	.0040000	DET	0.005	mg/L	
Walk Hydell	T	SW8240	.	.0010952	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	.0029519	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	.0033899	ND	0.500	mg/L	
Walk Hydell	T	SW8240	.	.0012401	ND	0.005	mg/L	

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Chlorobenzene ------
(continued)

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	.0012183	ND	.005	mg/L	
Woodward Clyde	T	SW8240	.	.0022561	ND	.002	mg/L	UJ
Woodward Clyde	T	SW8240	.	.0011872	ND	.002	mg/L	U
Woodward Clyde	T	SW8240	.	.0025449	ND	.002	mg/L	UJ

N = 11

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Ethyl benzene ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	3.9506	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	1.0861	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	8.1904	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	9.3927	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	3.4167	ND	.005	mg/L	
Walk Hydell	T	SW8240	12.4	12.4000	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	8.0023	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.4649	ND	.005	mg/L	
Woodward Clyde	T	SW8240	.	10.3660	ND	.002	mg/L	UJ
Woodward Clyde	T	SW8240	.	5.2517	ND	.002	mg/L	U
Woodward Clyde	T	SW8240	.	6.7405	ND	.002	mg/L	UJ

N = 11

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Hydrocarbons -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	E418.1	.	.0006329	ND	.0010	mg/L	
Walk Hydell	T	E418.1	.	.0009917	ND	.0010	mg/L	
Walk Hydell	T	E418.1	.00164	.0016400	DET	.0005	mg/L	
Walk Hydell	T	E418.1	.	.0001846	ND	.0005	mg/L	
Walk Hydell	T	E418.1	.	.0004493	ND	.0005	mg/L	
Walk Hydell	T	E418.1	.	.0001110	ND	.0005	mg/L	

N = 6

------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Naphthalene -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8270	.	0.000791	ND	0.01	mg/L	
Walk Hydell	T	SW8270	0.011	0.011000	DET	0.01	mg/L	
Walk Hydell	T	SW8270	.	0.009526	ND	0.01	mg/L	

N = 3

---- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Tetrachloroethene ----

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	0.029175	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	0.037722	ND	0.005	mg/L	
Walk Hydell	T	SW8240	0.039	0.039000	DET	0.005	mg/L	
Walk Hydell	T	SW8240	.	0.026595	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	0.000438	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	0.007849	ND	0.500	mg/L	
Walk Hydell	T	SW8240	.	0.014522	ND	0.005	mg/L	
Walk Hydell	T	SW8240	.	0.031660	ND	0.005	mg/L	

N = 8

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Toluene ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	0.00220	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.00422	ND	.005	mg/L	
Walk Hydell	T	SW8240	0.007	0.00700	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	0.00426	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.00018	ND	.005	mg/L	
Walk Hydell	T	SW8240	0.700	0.70000	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	0.00481	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.00682	ND	.005	mg/L	
Woodward Clyde	T	SW8240	.	0.00489	ND	.002	mg/L	UJ
Woodward Clyde	T	SW8240	.	0.00548	ND	.002	mg/L	U
Woodward Clyde	T	SW8240	.	0.00387	ND	.002	mg/L	UJ

N = 11

----- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Xylene (total) ------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	T	SW8240	.	0.06291	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.08074	ND	.005	mg/L	
Walk Hydell	T	SW8240	0.114	0.11400	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	0.03815	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.02947	ND	.005	mg/L	
Walk Hydell	T	SW8240	1.400	1.40000	DET	.005	mg/L	
Walk Hydell	T	SW8240	.	0.02861	ND	.005	mg/L	
Walk Hydell	T	SW8240	.	0.08174	ND	.005	mg/L	
Woodward Clyde	T	SW8240	.	0.06729	ND	.002	mg/L	UJ
Woodward Clyde	T	SW8240	.	0.02515	ND	.002	mg/L	U
Woodward Clyde	T	SW8240	.	0.11108	ND	.002	mg/L	UJ

N = 11

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Beryllium -------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	D	SW6010	-.00060	-.00060	DET	.000554	mg/L	BJ
Holloman Table 2	D	SW6010	-.00021	-.00021	DET	.000554	mg/L	BJ
Holloman Table 2	T	SW6010	-.00074	-.00074	DET	.000554	mg/L	BJ
Holloman Table 2	T	SW6010	-.00014	-.00014	DET	.000554	mg/L	BJ

N = 4

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Lead ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	D	SW7421	0.00544	0.00544	DET	.00107	mg/L	
Holloman Table 2	D	SW7421	0.01500	0.01500	DET	.00268	mg/L	
Holloman Table 2	T	SW7421	0.00626	0.00626	DET	.00107	mg/L	
Holloman Table 2	T	SW7421	0.01900	0.01900	DET	.00268	mg/L	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Zinc ----------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	D	SW6010	0.01380	0.01380	DET	.00153	mg/L	B
Holloman Table 2	D	SW6010	0.02450	0.02450	DET	.00153	mg/L	B
Holloman Table 2	T	SW6010	0.00052	0.00052	DET	.00153	mg/L	BJ
Holloman Table 2	T	SW6010	0.00918	0.00918	DET	.00153	mg/L	B

N = 4

-------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Hardness ---------

Data Source	Dis-solved or Total	Method	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	T	E130.2	24600	24600	DET	1000	mg/L	
Holloman Table 2	T	E130.2	42400	42400	DET	1000	mg/L	

N = 2

Attachment B.2: Surface Soil Raw Data For COPCs

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,1-Trichloroethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.04122	ND	0.00299	mg/kg	
Holloman Table 2	SW8240	S	.	0.05035	ND	0.00169	mg/kg	
Holloman Table 2	SW8240	S	.	0.01534	ND	0.00172	mg/kg	
Holloman Table 2	SW8240	S	.	0.07841	ND	0.00242	mg/kg	
Holloman Table 2	SW8240	S	.	0.01371	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.08447	ND	0.00168	mg/kg	
Holloman Table 2	SW8240	S	.	0.04039	ND	0.00168	mg/kg	
Holloman Table 2	SW8240	S	.	0.07615	ND	0.00167	mg/kg	
Holloman Table 2	SW8240	S	.	0.02143	ND	0.00171	mg/kg	

N = 10

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,2,2-Tetrachloroethane -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00309	ND	0.00479	mg/kg	
Holloman Table 2	SW8240	S	.	0.02699	ND	0.00458	mg/kg	
Holloman Table 2	SW8240	S	.	0.10339	ND	0.00467	mg/kg	
Holloman Table 2	SW8240	S	.	0.01175	ND	0.00389	mg/kg	
Holloman Table 2	SW8240	S	.	0.06957	ND	0.00470	mg/kg	
Holloman Table 2	SW8240	S	.	0.02324	ND	0.00456	mg/kg	
Holloman Table 2	SW8240	S	.	0.03894	ND	0.00457	mg/kg	
Holloman Table 2	SW8240	S	.	0.10167	ND	0.00453	mg/kg	
Holloman Table 2	SW8240	S	.	0.10875	ND	0.00463	mg/kg	

N = 10

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,2-Trichloroethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08178	ND	0.00111	mg/kg	
Holloman Table 2	SW8240	S	.	0.05740	ND	0.00138	mg/kg	
Holloman Table 2	SW8240	S	.	0.07883	ND	0.00140	mg/kg	
Holloman Table 2	SW8240	S	.	0.10093	ND	0.00090	mg/kg	
Holloman Table 2	SW8240	S	.	0.02439	ND	0.00141	mg/kg	
Holloman Table 2	SW8240	S	.	0.09895	ND	0.00137	mg/kg	
Holloman Table 2	SW8240	S	.	0.02904	ND	0.00137	mg/kg	
Holloman Table 2	SW8240	S	.	0.02434	ND	0.00136	mg/kg	
Holloman Table 2	SW8240	S	.	0.07522	ND	0.00139	mg/kg	

N = 10

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1-Dichloroethane -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07665	ND	0.00232	mg/kg	
Holloman Table 2	SW8240	S	.	0.03396	ND	0.00155	mg/kg	
Holloman Table 2	SW8240	S	.	0.03983	ND	0.00158	mg/kg	
Holloman Table 2	SW8240	S	.	0.00341	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.00772	ND	0.00159	mg/kg	
Holloman Table 2	SW8240	S	.	0.05687	ND	0.00154	mg/kg	
Holloman Table 2	SW8240	S	.	0.10180	ND	0.00154	mg/kg	
Holloman Table 2	SW8240	S	.	0.00822	ND	0.00153	mg/kg	
Holloman Table 2	SW8240	S	.	0.02227	ND	0.00157	mg/kg	

N = 10

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1-Dichloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03131	ND	0.00367	mg/kg	
Holloman Table 2	SW8240	S	.	0.00836	ND	0.00232	mg/kg	
Holloman Table 2	SW8240	S	.	0.01083	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.04633	ND	0.00298	mg/kg	
Holloman Table 2	SW8240	S	.	0.10254	ND	0.00238	mg/kg	
Holloman Table 2	SW8240	S	.	0.06993	ND	0.00231	mg/kg	
Holloman Table 2	SW8240	S	.	0.09875	ND	0.00231	mg/kg	
Holloman Table 2	SW8240	S	.	0.00575	ND	0.00229	mg/kg	
Holloman Table 2	SW8240	S	.	0.03628	ND	0.00234	mg/kg	

N = 10

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichloroethane -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.09769	ND	0.00116	mg/kg	
Holloman Table 2	SW8240	S	.	0.05498	ND	0.00157	mg/kg	
Holloman Table 2	SW8240	S	.	0.06304	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.03143	ND	0.00095	mg/kg	
Holloman Table 2	SW8240	S	.	0.09397	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.02597	ND	0.00156	mg/kg	
Holloman Table 2	SW8240	S	.	0.09469	ND	0.00156	mg/kg	
Holloman Table 2	SW8240	S	.	0.07395	ND	0.00155	mg/kg	
Holloman Table 2	SW8240	S	.	0.04124	ND	0.00159	mg/kg	

N = 10

---- SW[illegible]oup=118/132/AOC-A Method=Organics Analyte=1,2-Dichloropropane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07781	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.09990	ND	0.00237	mg/kg	
Holloman Table 2	SW8240	S	.	0.10926	ND	0.00242	mg/kg	
Holloman Table 2	SW8240	S	.	0.03420	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.01295	ND	0.00243	mg/kg	
Holloman Table 2	SW8240	S	.	0.01985	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.03356	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.08263	ND	0.00234	mg/kg	
Holloman Table 2	SW8240	S	.	0.08128	ND	0.00240	mg/kg	

N = 10

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4,5-T ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.0110	0.0110	DET	0.01100	mg/kg	
Holloman Table 2	SW8150	S	0.0112	0.0112	DET	0.00353	mg/kg	P

N = 2

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4,5-TP (Silvex) -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	.00940	.00940	DET	.00940	mg/kg	
Holloman Table 2	SW8150	S	.00723	.00723	DET	.00306	mg/kg	P

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4-D ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.066	0.066000	DET	0.0660	mg/kg	
Holloman Table 2	SW8150	S	.	0.028162	ND	0.0417	mg/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4- ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.0500	0.0500	DET	0.0500	mg/kg	
Holloman Table 2	SW8150	S	0.0184	0.0184	DET	0.0274	mg/kg	J

N = 2

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Chloroethyl vinyl ether -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.22	0.22000	DET	0.22000	mg/kg	
Holloman Table 2	SW8240	S	.	0.06170	ND	0.00673	mg/kg	
Holloman Table 2	SW8240	S	.	0.18494	ND	0.00259	mg/kg	
Holloman Table 2	SW8240	S	.	0.11150	ND	0.00263	mg/kg	
Holloman Table 2	SW8240	S	.	0.01432	ND	0.00546	mg/kg	
Holloman Table 2	SW8240	S	.	0.04440	ND	0.00265	mg/kg	
Holloman Table 2	SW8240	S	.	0.07792	ND	0.00257	mg/kg	
Holloman Table 2	SW8240	S	.	0.12587	ND	0.00258	mg/kg	
Holloman Table 2	SW8240	S	.	0.08759	ND	0.00256	mg/kg	
Holloman Table 2	SW8240	S	.	0.11704	ND	0.00261	mg/kg	

N = 10

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Hexanone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.1	1.10000	DET	1.10000	mg/kg	
Holloman Table 2	SW8240	S	.	1.04714	ND	0.00384	mg/kg	
Holloman Table 2	SW8240	S	.	0.43249	ND	0.00087	mg/kg	
Holloman Table 2	SW8240	S	.	1.05736	ND	0.00088	mg/kg	
Holloman Table 2	SW8240	S	.	0.28384	ND	0.00312	mg/kg	
Holloman Table 2	SW8240	S	.	0.05575	ND	0.00089	mg/kg	
Holloman Table 2	SW8240	S	.	0.28964	ND	0.00086	mg/kg	
Holloman Table 2	SW8240	S	.	0.99049	ND	0.00086	mg/kg	
Holloman Table 2	SW8240	S	.	0.78804	ND	0.00086	mg/kg	
Holloman Table 2	SW8240	S	.	0.09383	ND	0.00088	mg/kg	

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDD ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053	DET	0.00053	mg/kg	
Holloman Table 2	SW8080	S	.00960	.00960	DET	0.01080	mg/kg	J

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDE ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053000	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.	.00010812	ND	.00163	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDT ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.012	0.012000	DET	.00110	mg/kg	C
Holloman Table 2	SW8080	S	.	0.005354	ND	.00285	mg/kg	

N = 2

SWMUs Group=118/132/AOC-A Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.1	1.10000	DET	1.10000	mg/kg	
Holloman Table 2	SW8240	S	.	0.17062	ND	0.00214	mg/kg	
Holloman Table 2	SW8240	S	.	0.03111	ND	0.00083	mg/kg	
Holloman Table 2	SW8240	S	.	0.57147	ND	0.00084	mg/kg	
Holloman Table 2	SW8240	S	.	0.11080	ND	0.00174	mg/kg	
Holloman Table 2	SW8240	S	.	0.01243	ND	0.00085	mg/kg	
Holloman Table 2	SW8240	S	.	0.76996	ND	0.00082	mg/kg	
Holloman Table 2	SW8240	S	.	0.04755	ND	0.00082	mg/kg	
Holloman Table 2	SW8240	S	.	0.43931	ND	0.00082	mg/kg	
Holloman Table 2	SW8240	S	.	0.59269	ND	0.00084	mg/kg	

N = 10

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.2000	2.2000	DET	2.20000	mg/kg	
Holloman Table 2	SW8240	S	0.6470	0.6470	DET	0.00835	mg/kg	B
Holloman Table 2	SW8240	S	0.1410	0.1410	DET	0.00136	mg/kg	B
Holloman Table 2	SW8240	S	0.1200	0.1200	DET	0.00138	mg/kg	B
Holloman Table 2	SW8240	S	0.0229	0.0229	DET	0.02670	mg/kg	BJ
Holloman Table 2	SW8240	S	0.0383	0.0383	DET	0.00139	mg/kg	B
Holloman Table 2	SW8240	S	0.0148	0.0148	DET	0.00135	mg/kg	B
Holloman Table 2	SW8240	S	0.3830	0.3830	DET	0.00270	mg/kg	B
Holloman Table 2	SW8240	S	0.0912	0.0912	DET	0.00134	mg/kg	B
Holloman Table 2	SW8240	S	0.1630	0.1630	DET	0.00137	mg/kg	B

N = 10

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Aldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.00926	.00926	DET	.00108	mg/kg	P

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.04573	ND	0.00202	mg/kg	
Holloman Table 2	SW8240	S	.	0.09320	ND	0.00156	mg/kg	
Holloman Table 2	SW8240	S	.	0.06855	ND	0.00159	mg/kg	
Holloman Table 2	SW8240	S	.	0.05643	ND	0.00164	mg/kg	
Holloman Table 2	SW8240	S	.	0.05686	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.01452	ND	0.00155	mg/kg	
Holloman Table 2	SW8240	S	.	0.06999	ND	0.00155	mg/kg	
Holloman Table 2	SW8240	S	.	0.00228	ND	0.00154	mg/kg	
Holloman Table 2	SW8240	S	.	0.04241	ND	0.00158	mg/kg	

N = 10

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Bromodichloromethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02745	ND	0.00455	mg/kg	
Holloman Table 2	SW8240	S	.	0.04370	ND	0.00147	mg/kg	
Holloman Table 2	SW8240	S	.	0.02188	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.03443	ND	0.00369	mg/kg	
Holloman Table 2	SW8240	S	.	0.07370	ND	0.00151	mg/kg	
Holloman Table 2	SW8240	S	.	0.07543	ND	0.00147	mg/kg	
Holloman Table 2	SW8240	S	.	0.02884	ND	0.00147	mg/kg	
Holloman Table 2	SW8240	S	.	0.08235	ND	0.00146	mg/kg	
Holloman Table 2	SW8240	S	.	0.06142	ND	0.00149	mg/kg	

N = 10

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Bromomethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.22	0.22000	DET	0.22000	mg/kg	
Holloman Table 2	SW8240	S	.	0.01760	ND	0.00331	mg/kg	
Holloman Table 2	SW8240	S	.	0.19237	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.00363	ND	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.09490	ND	0.00268	mg/kg	
Holloman Table 2	SW8240	S	.	0.03351	ND	0.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.17022	ND	0.00181	mg/kg	
Holloman Table 2	SW8240	S	.	0.11182	ND	0.00181	mg/kg	
Holloman Table 2	SW8240	S	.	0.08531	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	0.06263	ND	0.00184	mg/kg	

N = 10

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Carbon disulfide ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.06427	ND	0.00538	mg/kg	
Holloman Table 2	SW8240	S	.	0.04577	ND	0.00234	mg/kg	
Holloman Table 2	SW8240	S	.	0.00095	ND	0.00238	mg/kg	
Holloman Table 2	SW8240	S	.	0.00367	ND	0.00437	mg/kg	
Holloman Table 2	SW8240	S	.	0.09083	ND	0.00240	mg/kg	
Holloman Table 2	SW8240	S	.	0.09291	ND	0.00233	mg/kg	
Holloman Table 2	SW8240	S	.	0.07232	ND	0.00233	mg/kg	
Holloman Table 2	SW8240	S	.	0.02554	ND	0.00231	mg/kg	
Holloman Table 2	SW8240	S	.	0.02147	ND	0.00236	mg/kg	

N = 10

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Carbon tetrachloride ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00284	ND	0.00261	mg/kg	
Holloman Table 2	SW8240	S	.	0.03554	ND	0.00181	mg/kg	
Holloman Table 2	SW8240	S	.	0.07485	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.03286	ND	0.00212	mg/kg	
Holloman Table 2	SW8240	S	.	0.04004	ND	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.08926	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	0.06293	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	0.08124	ND	0.00178	mg/kg	
Holloman Table 2	SW8240	S	.	0.09318	ND	0.00182	mg/kg	

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlordane ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0027	.0027000	DET	0.0027	mg/kg	
Holloman Table 2	SW8080	S	.	.0008133	ND	0.0136	mg/kg	X

N = 2

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorobenzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00615	ND	0.00155	mg/kg	
Holloman Table 2	SW8240	S	.	0.08691	ND	0.00420	mg/kg	
Holloman Table 2	SW8240	S	.	0.02704	ND	0.00428	mg/kg	
Holloman Table 2	SW8240	S	.	0.00053	ND	0.00126	mg/kg	
Holloman Table 2	SW8240	S	.	0.06463	ND	0.00431	mg/kg	
Holloman Table 2	SW8240	S	.	0.05245	ND	0.00418	mg/kg	
Holloman Table 2	SW8240	S	.	0.02741	ND	0.00418	mg/kg	
Holloman Table 2	SW8240	S	.	0.02374	ND	0.00415	mg/kg	
Holloman Table 2	SW8240	S	.	0.10128	ND	0.00424	mg/kg	

N = 10

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.22	0.22000	DET	0.22000	mg/kg	
Holloman Table 2	SW8240	S	.	0.19084	ND	0.00309	mg/kg	
Holloman Table 2	SW8240	S	.	0.18332	ND	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.08060	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.08343	ND	0.00251	mg/kg	
Holloman Table 2	SW8240	S	.	0.16857	ND	0.00190	mg/kg	
Holloman Table 2	SW8240	S	.	0.02185	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.16949	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.21492	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.17484	ND	0.00187	mg/kg	

N = 10

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroform ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03214	ND	0.00170	mg/kg	
Holloman Table 2	SW8240	S	.	0.06837	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	.	0.02996	ND	0.00193	mg/kg	
Holloman Table 2	SW8240	S	.	0.06379	ND	0.00138	mg/kg	
Holloman Table 2	SW8240	S	.	0.05823	ND	0.00194	mg/kg	
Holloman Table 2	SW8240	S	.	0.01599	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.09778	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.07080	ND	0.00187	mg/kg	
Holloman Table 2	SW8240	S	.	0.02074	ND	0.00191	mg/kg	

N = 10

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloromethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.22000	0.22000	DET	0.22000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00011	ND	0.00291	mg/kg	
Holloman Table 2	SW8240	S	0.00136	0.00136	DET	0.00220	mg/kg	BJ
Holloman Table 2	SW8240	S	.	0.00089	ND	0.00224	mg/kg	
Holloman Table 2	SW8240	S	.	0.00113	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.00007	ND	0.00226	mg/kg	
Holloman Table 2	SW8240	S	.	0.00123	ND	0.00219	mg/kg	
Holloman Table 2	SW8240	S	0.00136	0.00136	DET	0.00219	mg/kg	BJ
Holloman Table 2	SW8240	S	.	0.00028	ND	0.00218	mg/kg	
Holloman Table 2	SW8240	S	0.00128	0.00128	DET	0.00222	mg/kg	BJ

N = 10

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorpyrifos (Dursban) ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.531	0.531	DET	0.922	mg/kg	J

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Coumaphos ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00234	.00234	DET	0.01	mg/kg	KJ

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dalapon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.32	0.32000	DET	0.320	mg/kg	
Holloman Table 2	SW8150	S	.	0.30443	ND	0.254	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Demeton O ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.082	0.082000	DET	0.0820	mg/kg	
Holloman Table 2	SW8140	S	.	0.019172	ND	0.0499	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Demeton S ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.082	0.082000	DET	0.0820	mg/kg	
Holloman Table 2	SW8140	S	.	0.047663	ND	0.0744	mg/kg	

N = 2

--------- Js Group=118/132/AOC-A Method=Organics Analyte=Diazinon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.0779	0.0779	DET	0.0132	mg/kg	B

N = 1

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dibromochloromethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02832	ND	0.00114	mg/kg	
Holloman Table 2	SW8240	S	.	0.09674	ND	0.00166	mg/kg	
Holloman Table 2	SW8240	S	.	0.03116	ND	0.00169	mg/kg	
Holloman Table 2	SW8240	S	.	0.07186	ND	0.00093	mg/kg	
Holloman Table 2	SW8240	S	.	0.02857	ND	0.00170	mg/kg	
Holloman Table 2	SW8240	S	.	0.06382	ND	0.00165	mg/kg	
Holloman Table 2	SW8240	S	.	0.02610	ND	0.00165	mg/kg	
Holloman Table 2	SW8240	S	.	0.07687	ND	0.00164	mg/kg	
Holloman Table 2	SW8240	S	.	0.07248	ND	0.00167	mg/kg	

N = 10

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dicamba ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.015	0.015000	DET	0.01500	mg/kg	
Holloman Table 2	SW8150	S	.	0.009106	ND	0.00211	mg/kg	

N = 2

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dichloroprop --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.036	0.036	DET	0.036	mg/kg	
Holloman Table 2	SW8150	S	0.016	0.016	DET	0.048	mg/kg	PJ

N = 2

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dichlorvos ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.0485	0.0485	DET	0.115	mg/kg	KJ

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dieldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.00903	.00903	DET	.00257	mg/kg	P

N = 2

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dimethoate ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.033	0.033	DET	0.033	mg/kg	

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dinoseb ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.0083	0.0083	DET	0.0083	mg/kg	
Holloman Table 2	SW8150	S	0.0228	0.0228	DET	0.0270	mg/kg	KJ

N = 2

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Disulfoton ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.033	0.033000	DET	0.0330	mg/kg	
Holloman Table 2	SW8140	S	.	0.022659	ND	0.0701	mg/kg	

N = 2

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan I --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053000	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.	.00052588	ND	.00217	mg/kg	

N = 2

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan II -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0016	.0016000	DET	.00160	mg/kg	
Holloman Table 2	SW8080	S	.	.0014476	ND	.00203	mg/kg	

N = 2

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan Sulfate -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0027	.0027000	DET	.00270	mg/kg	
Holloman Table 2	SW8080	S	.	.0024409	ND	.00587	mg/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.00811	.00811	DET	.00768	mg/kg	P

N = 2

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin Aldehyde ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00110	.00110	DET	.00110	mg/kg	
Holloman Table 2	SW8080	S	.00384	.00384	DET	.00497	mg/kg	KJ

N = 2

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin Ketone -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0027	.0027	DET	.0027	mg/kg	

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethoprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00233	.00233	DET	0.0105	mg/kg	J

N = 1

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethyl benzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07131	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.00058	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.06816	ND	0.00152	mg/kg	
Holloman Table 2	SW8240	S	.	0.07104	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.05890	ND	0.00153	mg/kg	
Holloman Table 2	SW8240	S	.	0.06179	ND	0.00149	mg/kg	
Holloman Table 2	SW8240	S	.	0.07268	ND	0.00149	mg/kg	
Holloman Table 2	SW8240	S	.	0.08281	ND	0.00148	mg/kg	
Holloman Table 2	SW8240	S	.	0.06856	ND	0.00151	mg/kg	

N = 10

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethyl parathion ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.025	0.025	DET	0.025	mg/kg	

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Famphur ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.082	0.082	DET	0.082	mg/kg	

N = 1

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fensulfothion -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.25	0.25000	DET	0.2500	mg/kg	
Holloman Table 2	SW8140	S	.	0.04854	ND	0.0147	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fenthion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.0124	0.0124	DET	0.033	mg/kg	KJ

N = 1

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053000	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.	.00051000	ND	.00117	mg/kg	

N = 2

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor epoxide -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.00053	0.00053	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	0.38600	0.38600	DET	.00149	mg/kg	P

N = 2

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Hydrocarbons --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	E418.1	S	30.10	30.10	DET	10.7	mg/kg	
Holloman Table 2	E418.1	S	83.40	83.40	DET	33.9	mg/kg	B
Holloman Table 2	E418.1	S	8.35	8.35	DET	27.1	mg/kg	BJ
Holloman Table 2	E418.1	S	8.52	8.52	DET	27.6	mg/kg	BJ
Holloman Table 2	E418.1	S	133.00	133.00	DET	27.3	mg/kg	B
Holloman Table 2	E418.1	S	37.60	37.60	DET	27.5	mg/kg	B
Holloman Table 2	E418.1	S	13.80	13.80	DET	26.6	mg/kg	BJ
Holloman Table 2	E418.1	S	13.90	13.90	DET	26.8	mg/kg	BJ
Holloman Table 2	E418.1	S	13.80	13.80	DET	26.6	mg/kg	BJ
Holloman Table 2	E418.1	S	19.70	19.70	DET	26.9	mg/kg	BJ

N = 10

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPA ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	14.0	14.0	DET	14.00	mg/kg	
Holloman Table 2	SW8150	S	21.5	21.5	DET	8.78	mg/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPP ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	11	11.0000	DET	11.00	mg/kg	
Holloman Table 2	SW8150	S	.	4.1612	ND	2.47	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Merphos B ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00606	.00606	DET	0.013	mg/kg	KJ

N = 1

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methoxychlor --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0027	.0027000	DET	0.0027	mg/kg	
Holloman Table 2	SW8080	S	.	.0026749	ND	0.0176	mg/kg	

N = 2

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl azinphos ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.25000	0.25000	DET	0.2500	mg/kg	
Holloman Table 2	SW8140	S	0.00455	0.00455	DET	0.0124	mg/kg	PJ

N = 2

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl ethyl ketone ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.2	2.20000	DET	2.20000	mg/kg	
Holloman Table 2	SW8240	S	.	1.86268	ND	0.00438	mg/kg	
Holloman Table 2	SW8240	S	.	1.66666	ND	0.00138	mg/kg	
Holloman Table 2	SW8240	S	.	0.27117	ND	0.00140	mg/kg	
Holloman Table 2	SW8240	S	.	0.82286	ND	0.00355	mg/kg	
Holloman Table 2	SW8240	S	.	1.29082	ND	0.00141	mg/kg	
Holloman Table 2	SW8240	S	.	1.33391	ND	0.00137	mg/kg	
Holloman Table 2	SW8240	S	.	0.47566	ND	0.00137	mg/kg	
Holloman Table 2	SW8240	S	.	0.89229	ND	0.00136	mg/kg	
Holloman Table 2	SW8240	S	.	1.44319	ND	0.00139	mg/kg	

N = 10

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl parathion ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	.0015	.0015000	DET	0.0049	mg/kg	J
Holloman Table 2	SW8140	S	.	.0013485	ND	0.0114	mg/kg	

N = 2

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methylene Chloride -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.14000	0.14000	DET	0.11000	mg/kg	B@
Holloman Table 2	SW8240	S	0.00335	0.00335	DET	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.00040	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.00001	ND	0.00241	mg/kg	
Holloman Table 2	SW8240	S	.	0.00022	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.00054	ND	0.00242	mg/kg	
Holloman Table 2	SW8240	S	.	0.00021	ND	0.00235	mg/kg	
Holloman Table 2	SW8240	S	.	0.00052	ND	0.00235	mg/kg	
Holloman Table 2	SW8240	S	.	0.00037	ND	0.00233	mg/kg	
Holloman Table 2	SW8240	S	0.00055	0.00055	DET	0.00239	mg/kg	J

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Mevinphos ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.004	.004	DET	.00622	mg/kg	KJ

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=PCB-1260 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	0.00761	0.00761	DET	.00205	mg/kg	P
Holloman Table 2	SW8080	S	0.58100	0.58100	DET	.00401	mg/kg	
Holloman Table 2	SW8080	S	0.50200	0.50200	DET	.00396	mg/kg	
Holloman Table 2	SW8080	S	0.01030	0.01030	DET	.00197	mg/kg	
Holloman Table 2	SW8080	S	.	0.00315	ND	.00205	mg/kg	
Holloman Table 2	SW8080	S	0.00436	0.00436	DET	.00187	mg/kg	
Holloman Table 2	SW8080	S	0.00772	0.00772	DET	.00186	mg/kg	
Holloman Table 2	SW8080	S	0.00363	0.00363	DET	.00180	mg/kg	

N = 8

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Percent moisture ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	D2216	S	9.2	9.2	DET	.	percent	

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Phorate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.025	0.025000	DET	0.0250	mg/kg	
Holloman Table 2	SW8140	S	.	0.008466	ND	0.0261	mg/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ronnel ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.049	0.049000	DET	0.0490	mg/kg	
Holloman Table 2	SW8140	S	.	0.042134	ND	0.0122	mg/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Styrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.05486	ND	0.00225	mg/kg	
Holloman Table 2	SW8240	S	.	0.10968	ND	0.00146	mg/kg	
Holloman Table 2	SW8240	S	.	0.03735	ND	0.00149	mg/kg	
Holloman Table 2	SW8240	S	.	0.03897	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.08481	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.09087	ND	0.00146	mg/kg	
Holloman Table 2	SW8240	S	.	0.08834	ND	0.00146	mg/kg	
Holloman Table 2	SW8240	S	.	0.09720	ND	0.00145	mg/kg	
Holloman Table 2	SW8240	S	.	0.04674	ND	0.00148	mg/kg	

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Sulfotepp ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.016	0.016	DET	0.016	mg/kg	

N = 1

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Sulprofos (bolstar) ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00185	.00185	DET	0.0342	mg/kg	KJ

N = 1

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tetrachloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07580	ND	0.00337	mg/kg	
Holloman Table 2	SW8240	S	.	0.07619	ND	0.00430	mg/kg	
Holloman Table 2	SW8240	S	.	0.07106	ND	0.00437	mg/kg	
Holloman Table 2	SW8240	S	.	0.10347	ND	0.00274	mg/kg	
Holloman Table 2	SW8240	S	.	0.00041	ND	0.00440	mg/kg	
Holloman Table 2	SW8240	S	.	0.10720	ND	0.00427	mg/kg	
Holloman Table 2	SW8240	S	.	0.08943	ND	0.00428	mg/kg	
Holloman Table 2	SW8240	S	.	0.05010	ND	0.00425	mg/kg	
Holloman Table 2	SW8240	S	.	0.08498	ND	0.00434	mg/kg	

N = 10

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tetrachlorvinphos -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00237	.00237	DET	0.0118	mg/kg	J

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Thionazin ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.16	0.16	DET	0.16	mg/kg	

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	.0057	.0057000	DET	0.11000	mg/kg	JB
Holloman Table 2	SW8240	S	.	.0014813	ND	0.00200	mg/kg	
Holloman Table 2	SW8240	S	.	.0026544	ND	0.00154	mg/kg	
Holloman Table 2	SW8240	S	.	.0037361	ND	0.00157	mg/kg	
Holloman Table 2	SW8240	S	.	.0035226	ND	0.00162	mg/kg	
Holloman Table 2	SW8240	S	.	.0018382	ND	0.00158	mg/kg	
Holloman Table 2	SW8240	S	.	.0006574	ND	0.00153	mg/kg	
Holloman Table 2	SW8240	S	.	.0022182	ND	0.00153	mg/kg	
Holloman Table 2	SW8240	S	.	.0026742	ND	0.00152	mg/kg	
Holloman Table 2	SW8240	S	.	.0056561	ND	0.00155	mg/kg	

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toxaphene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.027	0.027000	DET	0.0270	mg/kg	
Holloman Table 2	SW8080	S	.	0.002143	ND	0.0447	mg/kg	

N = 2

SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tribromomethane(Bromoform)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.10188	ND	0.00233	mg/kg	
Holloman Table 2	SW8240	S	.	0.00274	ND	0.00137	mg/kg	
Holloman Table 2	SW8240	S	.	0.04527	ND	0.00139	mg/kg	
Holloman Table 2	SW8240	S	.	0.06962	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	.	0.03763	ND	0.00140	mg/kg	
Holloman Table 2	SW8240	S	.	0.03685	ND	0.00136	mg/kg	
Holloman Table 2	SW8240	S	.	0.04510	ND	0.00136	mg/kg	
Holloman Table 2	SW8240	S	.	0.04190	ND	0.00135	mg/kg	
Holloman Table 2	SW8240	S	.	0.06335	ND	0.00138	mg/kg	

N = 10

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Trichloroethene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07807	ND	0.00372	mg/kg	
Holloman Table 2	SW8240	S	.	0.06252	ND	0.00439	mg/kg	
Holloman Table 2	SW8240	S	.	0.05648	ND	0.00447	mg/kg	
Holloman Table 2	SW8240	S	.	0.05313	ND	0.00302	mg/kg	
Holloman Table 2	SW8240	S	.	0.07849	ND	0.00450	mg/kg	
Holloman Table 2	SW8240	S	.	0.10151	ND	0.00437	mg/kg	
Holloman Table 2	SW8240	S	.	0.04590	ND	0.00437	mg/kg	
Holloman Table 2	SW8240	S	.	0.02252	ND	0.00434	mg/kg	
Holloman Table 2	SW8240	S	.	0.00763	ND	0.00444	mg/kg	

N = 10

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Vinyl Chloride -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.22	0.22000	DET	0.22000	mg/kg	
Holloman Table 2	SW8240	S	.	0.14452	ND	0.00378	mg/kg	
Holloman Table 2	SW8240	S	.	0.03237	ND	0.00187	mg/kg	
Holloman Table 2	SW8240	S	.	0.03390	ND	0.00190	mg/kg	
Holloman Table 2	SW8240	S	.	0.11725	ND	0.00306	mg/kg	
Holloman Table 2	SW8240	S	.	0.18550	ND	0.00192	mg/kg	
Holloman Table 2	SW8240	S	.	0.16517	ND	0.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.06203	ND	0.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.15429	ND	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.18427	ND	0.00189	mg/kg	

N = 10

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Vinyl acetate -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07733	ND	0.00344	mg/kg	
Holloman Table 2	SW8240	S	.	0.09504	ND	0.00991	mg/kg	
Holloman Table 2	SW8240	S	.	0.04343	ND	0.01010	mg/kg	
Holloman Table 2	SW8240	S	.	0.02477	ND	0.00279	mg/kg	
Holloman Table 2	SW8240	S	.	0.01604	ND	0.01020	mg/kg	
Holloman Table 2	SW8240	S	.	0.10030	ND	0.00986	mg/kg	
Holloman Table 2	SW8240	S	.	0.08327	ND	0.00986	mg/kg	
Holloman Table 2	SW8240	S	.	0.03300	ND	0.00979	mg/kg	
Holloman Table 2	SW8240	S	.	0.03727	ND	0.01000	mg/kg	

N = 10

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Xylene (total) -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02915	ND	0.00432	mg/kg	
Holloman Table 2	SW8240	S	.	0.06088	ND	0.00329	mg/kg	
Holloman Table 2	SW8240	S	.	0.06552	ND	0.00335	mg/kg	
Holloman Table 2	SW8240	S	.	0.01046	ND	0.00351	mg/kg	
Holloman Table 2	SW8240	S	.	0.05982	ND	0.00337	mg/kg	
Holloman Table 2	SW8240	S	.	0.03665	ND	0.00327	mg/kg	
Holloman Table 2	SW8240	S	.	0.04511	ND	0.00328	mg/kg	
Holloman Table 2	SW8240	S	.	0.04310	ND	0.00325	mg/kg	
Holloman Table 2	SW8240	S	.	0.01859	ND	0.00332	mg/kg	

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=alpha-BHC ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00019	.00019	DET	.000530	mg/kg	J
Holloman Table 2	SW8080	S	.00528	.00528	DET	.000903	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=beta-BHC ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053000	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.	.00025607	ND	.00217	mg/kg	

N = 2

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=cis-1,3-Dichloropropene --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02437	ND	0.00113	mg/kg	
Holloman Table 2	SW8240	S	.	0.08218	ND	0.00145	mg/kg	
Holloman Table 2	SW8240	S	.	0.09693	ND	0.00148	mg/kg	
Holloman Table 2	SW8240	S	.	0.08656	ND	0.00092	mg/kg	
Holloman Table 2	SW8240	S	.	0.05023	ND	0.00149	mg/kg	
Holloman Table 2	SW8240	S	.	0.09536	ND	0.00145	mg/kg	

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=cis-1,3-Dichloropropene -- (continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.048517	ND	.00145	mg/kg	
Holloman Table 2	SW8240	S	.	0.026527	ND	.00144	mg/kg	
Holloman Table 2	SW8240	S	.	0.054418	ND	.00147	mg/kg	

N = 10

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=delta-BHC ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.00065	0.00065	DET	.000530	mg/kg	X@
Holloman Table 2	SW8080	S	0.01420	0.01420	DET	.000813	mg/kg	

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=gamma-BHC ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00053	.00053	DET	.00053	mg/kg	
Holloman Table 2	SW8080	S	.00681	.00681	DET	.00104	mg/kg	

N = 2

SWMUs Group=118/132/AOC-A Method=Organics Analyte=o,o,o-Triethylphosphorthioate

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.16	0.16	DET	0.16	mg/kg	

N = 1

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,2-Dichloroethene --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.01105	ND	0.00359	mg/kg	
Holloman Table 2	SW8240	S	.	0.03637	ND	0.00211	mg/kg	

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,2-Dichloroethene -- (continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.10387	ND	.00214	mg/kg	
Holloman Table 2	SW8240	S	.	0.05712	ND	.00291	mg/kg	
Holloman Table 2	SW8240	S	.	0.00581	ND	.00216	mg/kg	
Holloman Table 2	SW8240	S	.	0.02502	ND	.00209	mg/kg	
Holloman Table 2	SW8240	S	.	0.09072	ND	.00210	mg/kg	
Holloman Table 2	SW8240	S	.	0.02085	ND	.00208	mg/kg	
Holloman Table 2	SW8240	S	.	0.04238	ND	.00213	mg/kg	

N = 10

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,3-Dichloropropene -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.11	0.11000	DET	0.11000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08082	ND	0.00165	mg/kg	
Holloman Table 2	SW8240	S	.	0.09069	ND	0.00157	mg/kg	
Holloman Table 2	SW8240	S	.	0.09915	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.01451	ND	0.00134	mg/kg	
Holloman Table 2	SW8240	S	.	0.09078	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.05690	ND	0.00156	mg/kg	
Holloman Table 2	SW8240	S	.	0.06997	ND	0.00156	mg/kg	
Holloman Table 2	SW8240	S	.	0.03883	ND	0.00155	mg/kg	
Holloman Table 2	SW8240	S	.	0.00567	ND	0.00159	mg/kg	

N = 10

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	7.19	7.19	DET	0.237	mg/kg	
Holloman Table 2	SW7421	S	6.74	6.74	DET	0.282	mg/kg	
Holloman Table 2	SW7421	S	4.87	4.87	DET	0.267	mg/kg	
Holloman Table 2	SW7421	S	15.40	15.40	DET	0.263	mg/kg	
Holloman Table 2	SW7421	S	10.90	10.90	DET	0.274	mg/kg	
Holloman Table 2	SW7421	S	17.20	17.20	DET	0.256	mg/kg	
Holloman Table 2	SW7421	S	6.14	6.14	DET	0.260	mg/kg	
Holloman Table 2	SW7421	S	6.01	6.01	DET	0.269	mg/kg	
Holloman Table 2	SW7421	S	8.73	8.73	DET	0.348	mg/kg	B
Holloman Table 2	SW7421	S	3.45	3.45	DET	0.265	mg/kg	
Holloman Table 2	SW7421	S	2.67	2.67	DET	0.456	mg/kg	B
Holloman Table 2	SW7421	S	2.29	2.29	DET	0.395	mg/kg	B

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Lead ---------- (continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	4.90	4.90	DET	0.4030	mg/kg	B
Holloman Table 2	SW7421	S	5.29	5.29	DET	0.4220	mg/kg	B
Holloman Table 2	SW7421	S	6.36	6.36	DET	0.3610	mg/kg	B
Holloman Table 2	SW7421	S	4.64	4.64	DET	0.3800	mg/kg	B
Holloman Table 2	SW7421	S	196.00	196.00	DET	6.7100	mg/kg	SB
Holloman Table 2	SW7421	S	94.40	94.40	DET	2.7800	mg/kg	SB
Holloman Table 2	SW7421	S	192.00	192.00	DET	5.2700	mg/kg	SB
Holloman Table 2	SW7421	S	1480.00	1480.00	DET	74.1000	mg/kg	SB
Holloman Table 2	SW7421	S	13.20	13.20	DET	0.3790	mg/kg	S
Holloman Table 2	SW7421	S	5.74	5.74	DET	0.3650	mg/kg	S
Holloman Table 2	SW7421	S	21.90	21.90	DET	0.6410	mg/kg	S
Holloman Table 2	SW7421	S	6.14	6.14	DET	0.1410	mg/kg	S
Holloman Table 2	SW7421	S	2.06	2.06	DET	0.1450	mg/kg	SB
Holloman Table 2	SW7421	S	8.49	8.49	DET	0.1290	mg/kg	S
Holloman Table 2	SW7421	S	9.75	9.75	DET	0.2710	mg/kg	SB
Holloman Table 2	SW7421	S	2.35	2.35	DET	0.1510	mg/kg	SB
Holloman Table 2	SW7421	S	2.39	2.39	DET	0.0891	mg/kg	SB
Holloman Table 2	SW7421	S	4.30	4.30	DET	0.0678	mg/kg	
Holloman Table 2	SW7421	S	3.18	3.18	DET	0.0600	mg/kg	
Holloman Table 2	SW7421	S	2.10	2.10	DET	0.0761	mg/kg	

N = 32

---------- SWMUs Group=129/178 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.002356	ND	0.00134	mg/kg	
Holloman Table 2	SW8240	S	0.00930	0.009300	DET	0.00141	mg/kg	B
Holloman Table 2	SW8240	S	.	0.000288	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.000927	ND	0.00143	mg/kg	
Holloman Table 2	SW8240	S	0.00343	0.003430	DET	0.02710	mg/kg	BJ
Holloman Table 2	SW8240	S	0.02310	0.023100	DET	0.02640	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00319	0.003190	DET	0.02770	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00417	0.004170	DET	0.02590	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00310	0.003100	DET	0.02790	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00367	0.003670	DET	0.02970	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00404	0.004040	DET	0.03220	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00495	0.004950	DET	0.03160	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00591	0.005910	DET	0.02950	mg/kg	BJ
Holloman Table 2	SW8240	S	0.05740	0.057400	DET	0.03010	mg/kg	B
Holloman Table 2	SW8240	S	0.04990	0.049900	DET	0.03030	mg/kg	B
Holloman Table 2	SW8240	S	0.00415	0.004150	DET	0.02830	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00277	0.002770	DET	0.02800	mg/kg	J
Holloman Table 2	SW8240	S	.	0.002217	ND	0.02760	mg/kg	

SWMUs Group=129/178 Method=Organics Analyte=Acetone (continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0019879	ND	0.0189	mg/kg	

N = 19

SWMUs Group=129/178 Method=Organics Analyte=Acetophenone

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	7.3511	ND	15.0	ug/kg	
Holloman Table 2	SW8270	S	.	9.7081	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	8.9396	ND	16.9	ug/kg	
Holloman Table 2	SW8270	S	.	13.9243	ND	16.2	ug/kg	
Holloman Table 2	SW8270	S	.	2.3803	ND	15.9	ug/kg	
Holloman Table 2	SW8270	S	.	7.4834	ND	15.6	ug/kg	
Holloman Table 2	SW8270	S	.	1.7941	ND	16.3	ug/kg	
Holloman Table 2	SW8270	S	.	11.8733	ND	15.1	ug/kg	
Holloman Table 2	SW8270	S	.	0.1648	ND	16.5	ug/kg	
Holloman Table 2	SW8270	S	.	14.8612	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	2.5416	ND	18.8	ug/kg	
Holloman Table 2	SW8270	S	.	13.0162	ND	18.7	ug/kg	
Holloman Table 2	SW8270	S	.	3.3927	ND	17.3	ug/kg	
Holloman Table 2	SW8270	S	.	14.5499	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	1.3348	ND	17.8	ug/kg	
Holloman Table 2	SW8270	S	.	15.7303	ND	19.9	ug/kg	
Holloman Table 2	SW8270	S	.	14.5511	ND	22.3	ug/kg	
Holloman Table 2	SW8270	S	16.5	16.5000	DET	19.3	ug/kg	J
Holloman Table 2	SW8270	S	18.7	18.7000	DET	19.5	ug/kg	J
Holloman Table 2	SW8270	S	.	14.2189	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	13.9960	ND	16.5	ug/kg	
Holloman Table 2	SW8270	S	.	10.3545	ND	16.2	ug/kg	
Holloman Table 2	SW8270	S	.	10.9493	ND	18.7	ug/kg	
Holloman Table 2	SW8270	S	.	13.1890	ND	17.1	ug/kg	
Holloman Table 2	SW8270	S	.	14.6734	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	0.6390	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	11.1107	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	3.0429	ND	17.9	ug/kg	
Holloman Table 2	SW8270	S	.	7.1486	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	10.2339	ND	63.6	ug/kg	
Holloman Table 2	SW8270	S	.	1.5349	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	.	11.7793	ND	21.2	ug/kg	

N = 32

SWMUs Group=129/178 Method=Organics Analyte=Aniline

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	59.652	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	41.833	ND	32.9	ug/kg	
Holloman Table 2	SW8270	S	.	32.812	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	35.718	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	27.083	ND	32.7	ug/kg	
Holloman Table 2	SW8270	S	.	52.251	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	52.219	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	47.117	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	2.570	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	28.886	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	.	14.836	ND	38.8	ug/kg	
Holloman Table 2	SW8270	S	.	12.192	ND	38.5	ug/kg	
Holloman Table 2	SW8270	S	.	52.268	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	59.9	59.900	DET	36.4	ug/kg	
Holloman Table 2	SW8270	S	251.0	251.000	DET	36.6	ug/kg	
Holloman Table 2	SW8270	S	.	4.007	ND	24.1	ug/kg	
Holloman Table 2	SW8270	S	.	1.667	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	45.836	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	23.327	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	44.397	ND	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	10.911	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	3.679	NO	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	30.235	ND	38.5	ug/kg	
Holloman Table 2	SW8270	S	.	20.514	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	28.407	ND	37.1	ug/kg	
Holloman Table 2	SW8270	S	.	58.768	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	47.414	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	48.330	ND	36.8	ug/kg	
Holloman Table 2	SW8270	S	.	32.357	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	40.336	ND	77.2	ug/kg	
Holloman Table 2	SW8270	S	.	54.178	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	20.008	ND	25.7	ug/kg	

N = 32

SWMUs Group=129/178 Method=Organics Analyte=Anthracene

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	7.96679	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	6.13165	ND	21.6	ug/kg	
Holloman Table 2	SW8270	S	.	6.57253	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	7.20261	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	6.39000	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	4.92847	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	5.48735	ND	22.1	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Anthracene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	2.9369	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	6.2598	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	1.2012	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	1.3990	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	9.4360	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	0.7803	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	2.4437	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	8.7113	ND	24.1	ug/kg	
Holloman Table 2	SW8270	S	.	4.4338	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	15.90	15.9000	DET	33.1	ug/kg	J
Holloman Table 2	SW8270	S	9.84	9.8400	DET	28.6	ug/kg	J
Holloman Table 2	SW8270	S	9.44	9.4400	DET	29.0	ug/kg	J
Holloman Table 2	SW8270	S	.	8.1304	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	8.2050	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	2.4792	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	6.1347	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	3.7775	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	5.1697	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	8.9250	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	8.3123	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	7.4782	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	6.6343	ND	32.6	ug/kg	
Holloman Table 2	SW8270	S	.	4.5512	ND	94.3	ug/kg	
Holloman Table 2	SW8270	S	.	8.1068	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	4.1573	ND	31.5	ug/kg	

N = 32

---------- SWMUs Group=129/178 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.00059587	ND	.00154	mg/kg	
Holloman Table 2	SW8240	S	.	.00012702	ND	.00162	mg/kg	
Holloman Table 2	SW8240	S	.	.00075041	ND	.00172	mg/kg	
Holloman Table 2	SW8240	S	.	.00012026	ND	.00164	mg/kg	
Holloman Table 2	SW8240	S	.	.00058937	ND	.00166	mg/kg	
Holloman Table 2	SW8240	S	.000794	.00079400	DET	.00162	mg/kg	J
Holloman Table 2	SW8240	S	.	.00005171	ND	.00170	mg/kg	
Holloman Table 2	SW8240	S	.	.00000457	ND	.00159	mg/kg	
Holloman Table 2	SW8240	S	.	.00056992	ND	.00171	mg/kg	
Holloman Table 2	SW8240	S	.	.00050372	ND	.00182	mg/kg	
Holloman Table 2	SW8240	S	.	.00073064	ND	.00197	mg/kg	
Holloman Table 2	SW8240	S	.	.00032734	ND	.00194	mg/kg	
Holloman Table 2	SW8240	S	.	.00013695	ND	.00181	mg/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Benzene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.00016727	ND	.00185	mg/kg	
Holloman Table 2	SW8240	S	.	.00060896	ND	.00186	mg/kg	
Holloman Table 2	SW8240	S	.	.00025149	ND	.00174	mg/kg	
Holloman Table 2	SW8240	S	.	.00012055	ND	.00172	mg/kg	
Holloman Table 2	SW8240	S	.	.00004338	ND	.00169	mg/kg	
Holloman Table 2	SW8240	S	.	.00063736	ND	.00129	mg/kg	

N = 19

------- SWMUs Group=129/178 Method=Organics Analyte=Benzo(a)anthracene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	16.9	16.900	DET	19.1	ug/kg	J
Holloman Table 2	SW8270	S	.	0.575	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	13.517	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	9.444	ND	20.6	ug/kg	
Holloman Table 2	SW8270	S	13.6	13.600	DET	20.1	ug/kg	J
Holloman Table 2	SW8270	S	.	2.949	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	31.7	31.700	DET	20.7	ug/kg	
Holloman Table 2	SW8270	S	.	8.261	ND	19.2	ug/kg	
Holloman Table 2	SW8270	S	.	1.793	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	.	0.802	ND	22.2	ug/kg	
Holloman Table 2	SW8270	S	.	5.034	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	11.889	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	0.374	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	3.404	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	15.2	15.200	DET	22.6	ug/kg	J
Holloman Table 2	SW8270	S	.	11.996	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	122.0	122.000	DET	25.8	ug/kg	
Holloman Table 2	SW8270	S	19.8	19.800	DET	22.3	ug/kg	J
Holloman Table 2	SW8270	S	47.0	47.000	DET	22.6	ug/kg	
Holloman Table 2	SW8270	S	14.3	14.300	DET	23.6	ug/kg	J
Holloman Table 2	SW8270	S	17.9	17.900	DET	21.0	ug/kg	J
Holloman Table 2	SW8270	S	.	3.769	ND	20.6	ug/kg	
Holloman Table 2	SW8270	S	14.1	14.100	DET	23.8	ug/kg	J
Holloman Table 2	SW8270	S	30.4	30.400	DET	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	9.397	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	3.416	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	7.008	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	10.201	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	7.558	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	8.188	ND	73.5	ug/kg	
Holloman Table 2	SW8270	S	.	6.758	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	0.731	ND	24.5	ug/kg	

N = 32

-------- SWMUs Group=129/178 Method=Organics Analyte=Benzo(a)pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	21.0	21.000	DET	24.1	ug/kg	J
Holloman Table 2	SW8270	S	.	2.623	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.574	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	8.980	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	.	2.332	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	4.807	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	14.162	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	9.701	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	9.507	ND	26.5	ug/kg	
Holloman Table 2	SW8270	S	.	2.771	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	1.716	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	6.476	ND	29.9	ug/kg	
Holloman Table 2	SW8270	S	.	0.448	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	11.078	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	21.8	21.800	DET	28.5	ug/kg	J
Holloman Table 2	SW8270	S	.	11.243	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	123.0	123.000	DET	34.5	ug/kg	
Holloman Table 2	SW8270	S	32.3	32.300	DET	29.8	ug/kg	
Holloman Table 2	SW8270	S	45.2	45.200	DET	30.2	ug/kg	
Holloman Table 2	SW8270	S	24.6	24.600	DET	31.5	ug/kg	J
Holloman Table 2	SW8270	S	.	8.240	ND	26.5	ug/kg	
Holloman Table 2	SW8270	S	.	1.289	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	15.2	15.200	DET	30.0	ug/kg	J
Holloman Table 2	SW8270	S	14.5	14.500	DET	27.4	ug/kg	J
Holloman Table 2	SW8270	S	.	8.012	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	12.154	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	3.625	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	7.799	ND	28.6	ug/kg	
Holloman Table 2	SW8270	S	.	0.648	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	8.191	ND	98.2	ug/kg	
Holloman Table 2	SW8270	S	.	13.618	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	9.083	ND	32.8	ug/kg	

N = 32

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(b)fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	52	52.0000	DET	24.4	ug/kg	F
Holloman Table 2	SW8270	S	.	6.2180	ND	25.9	ug/kg	
Holloman Table 2	SW8270	S	.	16.1041	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	7.9646	ND	26.3	ug/kg	
Holloman Table 2	SW8270	S	.	0.7641	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	4.4190	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	19.7419	ND	26.4	ug/kg	

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(b)fluoranthene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	1.243	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	12.858	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	10.175	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	.	16.375	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	20.784	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	20.429	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	6.909	ND	28.6	ug/kg	
Holloman Table 2	SW8270	S	55.7	55.700	DET	28.8	ug/kg	F
Holloman Table 2	SW8270	S	.	14.303	ND	40.6	ug/kg	
Holloman Table 2	SW8270	S	267.0	267.000	DET	45.5	ug/kg	F
Holloman Table 2	SW8270	S	101.0	101.000	DET	39.4	ug/kg	F
Holloman Table 2	SW8270	S	90.3	90.300	DET	39.9	ug/kg	F
Holloman Table 2	SW8270	S	43.6	43.600	DET	41.6	ug/kg	F
Holloman Table 2	SW8270	S	.	0.502	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	4.887	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	38.8	38.800	DET	30.3	ug/kg	F
Holloman Table 2	SW8270	S	20.9	20.900	DET	27.7	ug/kg	FJ
Holloman Table 2	SW8270	S	.	0.223	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	20.770	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	.	9.630	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	.	13.745	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	10.894	ND	44.9	ug/kg	
Holloman Table 2	SW8270	S	.	20.257	ND	130.0	ug/kg	
Holloman Table 2	SW8270	S	.	9.753	ND	42.8	ug/kg	
Holloman Table 2	SW8270	S	.	15.753	ND	43.3	ug/kg	

N = 32

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(g,h,i)perylene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	10.3664	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	32.2079	ND	24.9	ug/kg	
Holloman Table 2	SW8270	S	.	23.6078	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	17.4642	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	18.5326	ND	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	31.7671	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	10.4947	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	8.0166	ND	23.6	ug/kg	
Holloman Table 2	SW8270	S	.	19.9447	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	32.9120	ND	27.3	ug/kg	
Holloman Table 2	SW8270	S	.	16.3269	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	19.2645	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	27.0674	ND	27.0	ug/kg	

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(g,h,i)perylene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	12.3761	ND	27.6	ug/kg	
Holloman Table 2	SW8270	S	.	24.3842	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	9.8270	ND	43.6	ug/kg	
Holloman Table 2	SW8270	S	77.8	77.8000	DET	49.0	ug/kg	
Holloman Table 2	SW8270	S	.	21.9316	ND	42.3	ug/kg	
Holloman Table 2	SW8270	S	50.4	50.4000	DET	42.9	ug/kg	
Holloman Table 2	SW8270	S	33.0	33.0000	DET	44.8	ug/kg	J
Holloman Table 2	SW8270	S	.	3.4166	ND	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	30.4005	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	18.2059	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	0.7992	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	32.0285	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	11.8241	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	38.8	38.8000	DET	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	11.3291	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	15.6568	ND	48.3	ug/kg	
Holloman Table 2	SW8270	S	.	0.0036	ND	140.0	ug/kg	
Holloman Table 2	SW8270	S	.	2.1705	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	12.6148	ND	46.6	ug/kg	

N = 32

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(k)fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	52.0	52.000	DET	30.6	ug/kg	F
Holloman Table 2	SW8270	S	.	18.517	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	.	5.608	ND	34.5	ug/kg	
Holloman Table 2	SW8270	S	.	16.442	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	13.958	ND	32.3	ug/kg	
Holloman Table 2	SW8270	S	.	7.877	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	6.488	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	13.194	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	15.554	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	10.612	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.644	ND	38.4	ug/kg	
Holloman Table 2	SW8270	S	.	2.678	ND	38.0	ug/kg	
Holloman Table 2	SW8270	S	.	16.196	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	7.090	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	55.7	55.700	DET	36.2	ug/kg	F
Holloman Table 2	SW8270	S	.	16.156	ND	42.5	ug/kg	
Holloman Table 2	SW8270	S	267.0	267.000	DET	47.7	ug/kg	F
Holloman Table 2	SW8270	S	101.0	101.000	DET	41.2	ug/kg	F
Holloman Table 2	SW8270	S	90.3	90.300	DET	41.8	ug/kg	F

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(k)fluoranthene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	43.6	43.6000	DET	43.6	ug/kg	F
Holloman Table 2	SW8270	S	.	7.2981	ND	33.7	ug/kg	
Holloman Table 2	SW8270	S	.	14.8970	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	38.8	38.8000	DET	38.1	ug/kg	F
Holloman Table 2	SW8270	S	20.9	20.9000	DET	34.8	ug/kg	FJ
Holloman Table 2	SW8270	S	.	18.0217	ND	36.7	ug/kg	
Holloman Table 2	SW8270	S	.	11.6105	ND	32.7	ug/kg	
Holloman Table 2	SW8270	S	.	13.8258	ND	32.7	ug/kg	
Holloman Table 2	SW8270	S	.	6.7490	ND	36.4	ug/kg	
Holloman Table 2	SW8270	S	.	10.8069	ND	47.0	ug/kg	
Holloman Table 2	SW8270	S	.	8.1646	ND	136.0	ug/kg	
Holloman Table 2	SW8270	S	.	7.3512	ND	44.8	ug/kg	
Holloman Table 2	SW8270	S	.	12.3904	ND	45.4	ug/kg	

N = 32

------ SWMUs Group=129/178 Method=Drganics Analyte=Butylbenzylphthalate -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	46.8772	ND	61.4	ug/kg	
Holloman Table 2	SW8270	S	.	5.8010	ND	65.2	ug/kg	
Holloman Table 2	SW8270	S	.	45.5617	ND	69.0	ug/kg	
Holloman Table 2	SW8270	S	.	54.9468	ND	66.1	ug/kg	
Holloman Table 2	SW8270	S	.	19.3161	ND	64.7	ug/kg	
Holloman Table 2	SW8270	S	.	56.9106	ND	63.6	ug/kg	
Holloman Table 2	SW8270	S	.	29.3848	ND	66.5	ug/kg	
Holloman Table 2	SW8270	S	.	40.9544	ND	61.7	ug/kg	
Holloman Table 2	SW8270	S	.	50.0958	ND	67.3	ug/kg	
Holloman Table 2	SW8270	S	.	36.7051	ND	71.3	ug/kg	
Holloman Table 2	SW8270	S	.	60.0572	ND	76.8	ug/kg	
Holloman Table 2	SW8270	S	.	11.2162	ND	76.1	ug/kg	
Holloman Table 2	SW8270	S	.	39.5039	ND	70.6	ug/kg	
Holloman Table 2	SW8270	S	.	23.4893	ND	72.1	ug/kg	
Holloman Table 2	SW8270	S	.	23.0314	ND	72.5	ug/kg	
Holloman Table 2	SW8270	S	.	65.7313	ND	70.4	ug/kg	
Holloman Table 2	SW8270	S	68.3	68.3000	DET	79.0	ug/kg	J
Holloman Table 2	SW8270	S	.	4.2221	ND	68.3	ug/kg	
Holloman Table 2	SW8270	S	.	45.7814	ND	69.2	ug/kg	
Holloman Table 2	SW8270	S	.	10.8308	ND	72.3	ug/kg	
Holloman Table 2	SW8270	S	.	35.6986	ND	67.4	ug/kg	
Holloman Table 2	SW8270	S	.	40.6302	ND	66.1	ug/kg	
Holloman Table 2	SW8270	S	.	56.0960	ND	76.3	ug/kg	
Holloman Table 2	SW8270	S	.	56.3006	ND	69.6	ug/kg	
Holloman Table 2	SW8270	S	.	21.3415	ND	73.5	ug/kg	

------ SWMUs Group=129/178 Method=Organics Analyte=Butylbenzylphthalate -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	11.6155	ND	65.4	ug/kg	
Holloman Table 2	SW8270	S	.	23.8606	ND	65.4	ug/kg	
Holloman Table 2	SW8270	S	.	45.2105	ND	72.9	ug/kg	
Holloman Table 2	SW8270	S	.	28.3410	ND	77.9	ug/kg	
Holloman Table 2	SW8270	S	.	52.1427	ND	225.0	ug/kg	
Holloman Table 2	SW8270	S	.	27.6050	ND	74.3	ug/kg	
Holloman Table 2	SW8270	S	.	61.1934	ND	75.2	ug/kg	

N = 32

---------- SWMUs Group=129/178 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	19.2	19.200	DET	25.3	ug/kg	J
Holloman Table 2	SW8270	S	.	0.340	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	14.792	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	11.309	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	26.2	26.200	DET	26.6	ug/kg	J
Holloman Table 2	SW8270	S	.	2.454	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	32.6	32.600	DET	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	12.881	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	11.958	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	9.714	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	4.492	ND	31.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.332	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	11.764	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	15.077	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	15.2	15.200	DET	29.9	ug/kg	J
Holloman Table 2	SW8270	S	.	8.153	ND	38.3	ug/kg	
Holloman Table 2	SW8270	S	221.0	221.000	DET	43.0	ug/kg	
Holloman Table 2	SW8270	S	44.9	44.900	DET	37.1	ug/kg	
Holloman Table 2	SW8270	S	65.5	65.500	DET	37.6	ug/kg	
Holloman Table 2	SW8270	S	18.5	18.500	DET	39.3	ug/kg	J
Holloman Table 2	SW8270	S	23.5	23.500	DET	27.8	ug/kg	J
Holloman Table 2	SW8270	S	.	7.213	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	24.2	24.200	DET	31.4	ug/kg	J
Holloman Table 2	SW8270	S	31.8	31.800	DET	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	11.763	ND	30.3	ug/kg	
Holloman Table 2	SW8270	S	.	9.982	ND	26.9	ug/kg	
Holloman Table 2	SW8270	S	.	4.198	ND	26.9	ug/kg	
Holloman Table 2	SW8270	S	.	14.367	ND	30.0	ug/kg	
Holloman Table 2	SW8270	S	.	10.554	ND	42.3	ug/kg	
Holloman Table 2	SW8270	S	.	4.094	ND	122.0	ug/kg	
Holloman Table 2	SW8270	S	.	14.497	ND	40.4	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Chrysene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	5.27273	ND	40.9	ug/kg	

N = 32

-------- SWMUs Group=129/178 Method=Organics Analyte=Dibutylphthalate ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	21.513	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	16.334	ND	21.4	ug/kg	
Holloman Table 2	SW8270	S	.	11.875	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	4.254	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	19.178	ND	21.3	ug/kg	
Holloman Table 2	SW8270	S	.	13.009	ND	20.9	ug/kg	
Holloman Table 2	SW8270	S	.	16.266	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	15.864	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	8.327	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	20.491	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	7.846	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	7.339	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	19.565	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	22.154	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	13.822	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	13.081	ND	19.1	ug/kg	
Holloman Table 2	SW8270	S	.	13.771	ND	21.4	ug/kg	
Holloman Table 2	SW8270	S	22.9	22.900	DET	18.5	ug/kg	
Holloman Table 2	SW8270	S	187.0	187.000	DET	18.8	ug/kg	
Holloman Table 2	SW8270	S	.	0.519	ND	19.6	ug/kg	
Holloman Table 2	SW8270	S	.	17.574	ND	22.2	ug/kg	
Holloman Table 2	SW8270	S	.	20.973	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	12.571	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	0.405	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	15.434	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	4.818	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	5.426	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	8.572	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	14.848	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	2.831	ND	61.1	ug/kg	
Holloman Table 2	SW8270	S	.	8.475	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	6.223	ND	20.4	ug/kg	

N = 32

---------- SWMUs Group=129/178 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0008966	ND	.00148	mg/kg	
Holloman Table 2	SW8240	S	.	.0002630	ND	.00155	mg/kg	
Holloman Table 2	SW8240	S	.	.0003781	ND	.00165	mg/kg	
Holloman Table 2	SW8240	S	.	.0010358	ND	.00158	mg/kg	
Holloman Table 2	SW8240	S	.	.0002090	ND	.00175	mg/kg	
Holloman Table 2	SW8240	S	.00129	.0012900	DET	.00171	mg/kg	J
Holloman Table 2	SW8240	S	.	.0000820	ND	.00179	mg/kg	
Holloman Table 2	SW8240	S	.	.0012057	ND	.00168	mg/kg	
Holloman Table 2	SW8240	S	.	.0010638	ND	.00180	mg/kg	
Holloman Table 2	SW8240	S	.	.0007457	ND	.00192	mg/kg	
Holloman Table 2	SW8240	S	.	.0004908	ND	.00208	mg/kg	
Holloman Table 2	SW8240	S	.	.0011904	ND	.00204	mg/kg	
Holloman Table 2	SW8240	S	.	.0005515	ND	.00191	mg/kg	
Holloman Table 2	SW8240	S	.	.0004817	ND	.00194	mg/kg	
Holloman Table 2	SW8240	S	.	.0003617	ND	.00196	mg/kg	
Holloman Table 2	SW8240	S	.	.0011521	ND	.00183	mg/kg	
Holloman Table 2	SW8240	S	.	.0005349	ND	.00181	mg/kg	
Holloman Table 2	SW8240	S	.	.0005004	ND	.00178	mg/kg	
Holloman Table 2	SW8240	S	.	.0009942	ND	.00124	mg/kg	

N = 19

---------- SWMUs Group=129/178 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	30.3	30.300	DET	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	4.456	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	0.824	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	4.879	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	14.2	14.200	DET	22.9	ug/kg	J
Holloman Table 2	SW8270	S	.	7.307	ND	22.5	ug/kg	
Holloman Table 2	SW8270	S	60.2	60.200	DET	23.6	ug/kg	
Holloman Table 2	SW8270	S	.	3.326	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	1.934	ND	23.8	ug/kg	
Holloman Table 2	SW8270	S	.	6.835	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	11.645	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	.	1.898	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	.	5.156	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	10.715	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	5.164	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	1.093	ND	22.8	ug/kg	
Holloman Table 2	SW8270	S	234.0	234.000	DET	25.6	ug/kg	
Holloman Table 2	SW8270	S	75.0	75.000	DET	22.1	ug/kg	
Holloman Table 2	SW8270	S	87.7	87.700	DET	22.4	ug/kg	
Holloman Table 2	SW8270	S	12.8	12.800	DET	23.4	ug/kg	J

---------- SWMUs Group=129/178 Method=Organics Analyte=Fluoranthene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	38.8	38.8000	DET	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	2.1332	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	29.0	29.0000	DET	27.0	ug/kg	
Holloman Table 2	SW8270	S	41.3	41.3000	DET	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	11.5336	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	.	7.5761	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	3.3490	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	7.4002	ND	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	5.6492	ND	25.2	ug/kg	
Holloman Table 2	SW8270	S	.	0.3312	ND	72.9	ug/kg	
Holloman Table 2	SW8270	S	.	10.6575	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	1.5211	ND	24.3	ug/kg	

N = 32

---------- SWMUs Group=129/178 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	304.00	304.00	DET	26.3	mg/kg	
Holloman Table 2	E418.1	S	1270.00	1270.00	DET	27.8	mg/kg	
Holloman Table 2	E418.1	S	65.40	65.40	DET	29.6	mg/kg	
Holloman Table 2	E418.1	S	125.00	125.00	DET	28.2	mg/kg	
Holloman Table 2	E418.1	S	19.80	19.80	DET	27.6	mg/kg	J
Holloman Table 2	E418.1	S	79.80	79.80	DET	27.0	mg/kg	
Holloman Table 2	E418.1	S	92.50	92.50	DET	28.2	mg/kg	
Holloman Table 2	E418.1	S	7.71	7.71	DET	26.5	mg/kg	J
Holloman Table 2	E418.1	S	14.50	14.50	DET	28.6	mg/kg	J
Holloman Table 2	E418.1	S	83.60	83.60	DET	30.5	mg/kg	
Holloman Table 2	E418.1	S	27.10	27.10	DET	32.9	mg/kg	J
Holloman Table 2	E418.1	S	5.97	5.97	DET	32.3	mg/kg	J
Holloman Table 2	E418.1	S	91.90	91.90	DET	30.0	mg/kg	
Holloman Table 2	E418.1	S	87.50	87.50	DET	30.7	mg/kg	
Holloman Table 2	E418.1	S	114.00	114.00	DET	30.8	mg/kg	
Holloman Table 2	E418.1	S	54.30	54.30	DET	28.7	mg/kg	
Holloman Table 2	E418.1	S	120.00	120.00	DET	32.5	mg/kg	B
Holloman Table 2	E418.1	S	1430.00	1430.00	DET	28.0	mg/kg	B
Holloman Table 2	E418.1	S	242.00	242.00	DET	28.3	mg/kg	B
Holloman Table 2	E418.1	S	340.00	340.00	DET	29.6	mg/kg	B
Holloman Table 2	E418.1	S	115.00	115.00	DET	28.6	mg/kg	
Holloman Table 2	E418.1	S	4.45	4.45	DET	28.2	mg/kg	J
Holloman Table 2	E418.1	S	152.00	152.00	DET	32.4	mg/kg	B
Holloman Table 2	E418.1	S	8.41	8.41	DET	29.6	mg/kg	J
Holloman Table 2	E418.1	S	12.20	12.20	DET	31.2	mg/kg	J
Holloman Table 2	E418.1	S	62.80	62.80	DET	27.7	mg/kg	B

-------- .Us Group=129/178 Method=Organics Analyte=Hydrocarbons ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	116.00	116.00	DET	27.8	mg/kg	B
Holloman Table 2	E418.1	S	3.87	3.87	DET	31.0	mg/kg	BJ
Holloman Table 2	E418.1	S	9.66	9.66	DET	31.8	mg/kg	J
Holloman Table 2	E418.1	S	2.22	2.22	DET	30.7	mg/kg	J
Holloman Table 2	E418.1	S	2.20	2.20	DET	30.4	mg/kg	J
Holloman Table 2	E418.1	S	-4.29	-4.29	DET	30.7	mg/kg	J

N = 32

----- SWMUs Group=129/178 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	0.2734	ND	18.4	ug/kg	
Holloman Table 2	SW8270	S	.	14.7468	ND	19.6	ug/kg	
Holloman Table 2	SW8270	S	.	7.9958	ND	20.7	ug/kg	
Holloman Table 2	SW8270	S	.	11.2257	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	.	19.1198	ND	19.4	ug/kg	
Holloman Table 2	SW8270	S	.	9.7652	ND	19.1	ug/kg	
Holloman Table 2	SW8270	S	.	10.4543	ND	20.0	ug/kg	
Holloman Table 2	SW8270	S	.	1.8154	ND	18.5	ug/kg	
Holloman Table 2	SW8270	S	.	0.7352	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	12.0397	ND	21.4	ug/kg	
Holloman Table 2	SW8270	S	.	12.2360	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	17.1344	ND	22.8	ug/kg	
Holloman Table 2	SW8270	S	.	6.6043	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	1.8000	ND	21.6	ug/kg	
Holloman Table 2	SW8270	S	.	10.4279	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	1.5045	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	64.0	64.0000	DET	38.3	ug/kg	
Holloman Table 2	SW8270	S	.	19.5802	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	22.2	22.2000	DET	33.5	ug/kg	J
Holloman Table 2	SW8270	S	.	13.8903	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	12.0396	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	15.0602	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	.	2.6395	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	8.0132	ND	20.9	ug/kg	
Holloman Table 2	SW8270	S	.	5.5130	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	10.2944	ND	19.6	ug/kg	
Holloman Table 2	SW8270	S	.	19.2624	ND	19.6	ug/kg	
Holloman Table 2	SW8270	S	.	15.1249	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	18.6752	ND	37.7	ug/kg	
Holloman Table 2	SW8270	S	.	1.0186	ND	109.0	ug/kg	
Holloman Table 2	SW8270	S	.	2.2533	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	.	18.5981	ND	36.4	ug/kg	

N = 32

------- SWMUs Group=129/178 Method=Organics Analyte=Methyl ethyl e -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0017681	ND	.00136	mg/kg	
Holloman Table 2	SW8240	S	.	.0017543	ND	.00143	mg/kg	
Holloman Table 2	SW8240	S	.	.0018728	ND	.00152	mg/kg	
Holloman Table 2	SW8240	S	.	.0014535	ND	.00145	mg/kg	
Holloman Table 2	SW8240	S	.	.0017094	ND	.00360	mg/kg	
Holloman Table 2	SW8240	S	.	.0000565	ND	.00351	mg/kg	
Holloman Table 2	SW8240	S	.	.0003456	ND	.00368	mg/kg	
Holloman Table 2	SW8240	S	.	.0001372	ND	.00345	mg/kg	
Holloman Table 2	SW8240	S	.	.0009226	ND	.00371	mg/kg	
Holloman Table 2	SW8240	S	.	.0009796	ND	.00395	mg/kg	
Holloman Table 2	SW8240	S	.	.0012219	ND	.00428	mg/kg	
Holloman Table 2	SW8240	S	.	.0018588	ND	.00420	mg/kg	
Holloman Table 2	SW8240	S	.	.0001776	ND	.00392	mg/kg	
Holloman Table 2	SW8240	S	.00204	.0020400	DET	.00400	mg/kg	J
Holloman Table 2	SW8240	S	.	.0004952	ND	.00402	mg/kg	
Holloman Table 2	SW8240	S	.	.0014050	ND	.00377	mg/kg	
Holloman Table 2	SW8240	S	.	.0017106	ND	.00373	mg/kg	
Holloman Table 2	SW8240	S	.	.0009874	ND	.00366	mg/kg	
Holloman Table 2	SW8240	S	.	.0003760	ND	.00911	mg/kg	

N = 19

------- SWMUs Group=129/178 Method=Organics Analyte=Methylene Chloride --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0001970	ND	.00233	mg/kg	
Holloman Table 2	SW8240	S	.	.0002978	ND	.00245	mg/kg	
Holloman Table 2	SW8240	S	.	.0001661	ND	.00261	mg/kg	
Holloman Table 2	SW8240	S	.000856	.0008560	DET	.00249	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0000203	ND	.00152	mg/kg	
Holloman Table 2	SW8240	S	.	.0008153	ND	.00148	mg/kg	
Holloman Table 2	SW8240	S	.001410	.0014100	DET	.00155	mg/kg	J
Holloman Table 2	SW8240	S	.	.0000152	ND	.00145	mg/kg	
Holloman Table 2	SW8240	S	.	.0007588	ND	.00157	mg/kg	
Holloman Table 2	SW8240	S	.	.0000736	ND	.00167	mg/kg	
Holloman Table 2	SW8240	S	.	.0000738	ND	.00180	mg/kg	
Holloman Table 2	SW8240	S	.	.0001122	ND	.00177	mg/kg	
Holloman Table 2	SW8240	S	.	.0002031	ND	.00165	mg/kg	
Holloman Table 2	SW8240	S	.	.0001049	ND	.00169	mg/kg	
Holloman Table 2	SW8240	S	.	.0008490	ND	.00170	mg/kg	
Holloman Table 2	SW8240	S	.	.0006514	ND	.00159	mg/kg	
Holloman Table 2	SW8240	S	.	.0005136	ND	.00157	mg/kg	
Holloman Table 2	SW8240	S	.	.0001424	ND	.00155	mg/kg	
Holloman Table 2	SW8240	S	.000900	.0009000	DET	.00269	mg/kg	BJ

N = 19

---------- SWMUs Group=129/178 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	16.3	16.3000	DET	28.2	ug/kg	J
Holloman Table 2	SW8270	S	.	0.5051	ND	30.0	ug/kg	
Holloman Table 2	SW8270	S	.	13.2677	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	8.8092	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	12.4660	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	.	5.7383	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	31.7	31.7000	DET	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.0244	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	6.9625	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	16.0363	ND	32.8	ug/kg	
Holloman Table 2	SW8270	S	.	7.4063	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	13.8217	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	1.6019	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	.	5.7392	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	6.3611	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	13.3299	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	83.8	83.8000	DET	28.6	ug/kg	
Holloman Table 2	SW8270	S	36.3	36.3000	DET	24.7	ug/kg	
Holloman Table 2	SW8270	S	40.6	40.6000	DET	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	5.9088	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	18.2	18.2000	DET	31.0	ug/kg	J
Holloman Table 2	SW8270	S	.	11.1177	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	12.6334	ND	35.1	ug/kg	
Holloman Table 2	SW8270	S	46.8	46.8000	DET	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	1.7208	ND	33.8	ug/kg	
Holloman Table 2	SW8270	S	.	16.2519	ND	30.1	ug/kg	
Holloman Table 2	SW8270	S	.	14.9536	ND	30.1	ug/kg	
Holloman Table 2	SW8270	S	.	13.2265	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	12.6031	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	5.4382	ND	81.6	ug/kg	
Holloman Table 2	SW8270	S	.	2.1003	ND	26.9	ug/kg	
Holloman Table 2	SW8270	S	.	10.9273	ND	27.2	ug/kg	

N = 32

---------- SWMUs Group=129/178 Method=Drganics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	31.7	31.7000	DET	15.5	ug/kg	
Holloman Table 2	SW8270	S	.	5.9384	ND	16.4	ug/kg	
Holloman Table 2	SW8270	S	.	3.4622	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	10.8017	ND	16.7	ug/kg	
Holloman Table 2	SW8270	S	11.5	11.5000	DET	16.3	ug/kg	J
Holloman Table 2	SW8270	S	.	9.2078	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	57.9	57.9000	DET	16.8	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Pyrene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	6.886	ND	15.5	ug/kg	
Holloman Table 2	SW8270	S	.	3.138	ND	17.0	ug/kg	
Holloman Table 2	SW8270	S	.	10.925	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	8.229	ND	19.4	ug/kg	
Holloman Table 2	SW8270	S	.	1.345	ND	19.2	ug/kg	
Holloman Table 2	SW8270	S	.	6.253	ND	17.8	ug/kg	
Holloman Table 2	SW8270	S	.	1.954	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	10.447	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	2.241	ND	27.3	ug/kg	
Holloman Table 2	SW8270	S	230.0	230.000	DET	30.7	ug/kg	
Holloman Table 2	SW8270	S	56.4	56.400	DET	26.5	ug/kg	
Holloman Table 2	SW8270	S	86.2	86.200	DET	26.9	ug/kg	
Holloman Table 2	SW8270	S	16.6	16.600	DET	28.0	ug/kg	J
Holloman Table 2	SW8270	S	30.9	30.900	DET	17.0	ug/kg	
Holloman Table 2	SW8270	S	.	8.002	ND	16.6	ug/kg	
Holloman Table 2	SW8270	S	22.8	22.800	DET	19.2	ug/kg	
Holloman Table 2	SW8270	S	66.5	66.500	DET	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	6.515	ND	18.5	ug/kg	
Holloman Table 2	SW8270	S	.	1.956	ND	16.5	ug/kg	
Holloman Table 2	SW8270	S	.	9.554	ND	16.5	ug/kg	
Holloman Table 2	SW8270	S	.	2.550	ND	18.4	ug/kg	
Holloman Table 2	SW8270	S	.	0.295	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	8.145	ND	87.5	ug/kg	
Holloman Table 2	SW8270	S	.	9.458	ND	28.8	ug/kg	
Holloman Table 2	SW8270	S	.	4.132	ND	29.2	ug/kg	

N = 32

---------- SWMUs Group=129/178 Method=Drganics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0003887	ND	.00152	mg/kg	
Holloman Table 2	SW8240	S	.	.0003587	ND	.00160	mg/kg	
Holloman Table 2	SW8240	S	.001290	.0012900	DET	.00170	mg/kg	J
Holloman Table 2	SW8240	S	.001600	.0016000	DET	.00162	mg/kg	J
Holloman Table 2	SW8240	S	.001560	.0015600	DET	.00164	mg/kg	J
Holloman Table 2	SW8240	S	.004110	.0041100	DET	.00160	mg/kg	
Holloman Table 2	SW8240	S	.001730	.0017300	DET	.00168	mg/kg	
Holloman Table 2	SW8240	S	.000833	.0008330	DET	.00157	mg/kg	J
Holloman Table 2	SW8240	S	.001660	.0016600	DET	.00169	mg/kg	J
Holloman Table 2	SW8240	S	.001900	.0019000	DET	.00180	mg/kg	
Holloman Table 2	SW8240	S	.002240	.0022400	DET	.00195	mg/kg	
Holloman Table 2	SW8240	S	.001480	.0014800	DET	.00191	mg/kg	J
Holloman Table 2	SW8240	S	.	.0007304	ND	.00179	mg/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Toluene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.001770	.0017700	DET	.00182	mg/kg	J
Holloman Table 2	SW8240	S	.000824	.0008240	DET	.00183	mg/kg	J
Holloman Table 2	SW8240	S	.	.0003891	ND	.00172	mg/kg	
Holloman Table 2	SW8240	S	.005860	.0058600	DET	.00170	mg/kg	
Holloman Table 2	SW8240	S	.	.0002008	ND	.00167	mg/kg	
Holloman Table 2	SW8240	S	.	.0002616	ND	.00256	mg/kg	

N = 19

--------- SWMUs Group=129/178 Method=Organics Analyte=Trichloroethene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0001500	ND	.00433	mg/kg	
Holloman Table 2	SW8240	S	.	.0021533	ND	.00455	mg/kg	
Holloman Table 2	SW8240	S	.	.0004993	ND	.00485	mg/kg	
Holloman Table 2	SW8240	S	.	.0001325	ND	.00463	mg/kg	
Holloman Table 2	SW8240	S	.	.0003570	ND	.00306	mg/kg	
Holloman Table 2	SW8240	S	.	.0021355	ND	.00298	mg/kg	
Holloman Table 2	SW8240	S	.	.0016486	ND	.00313	mg/kg	
Holloman Table 2	SW8240	S	.	.0018748	ND	.00293	mg/kg	
Holloman Table 2	SW8240	S	.	.0015324	ND	.00315	mg/kg	
Holloman Table 2	SW8240	S	.	.0029410	ND	.00336	mg/kg	
Holloman Table 2	SW8240	S	.	.0004837	ND	.00364	mg/kg	
Holloman Table 2	SW8240	S	.	.0006769	ND	.00357	mg/kg	
Holloman Table 2	SW8240	S	.	.0013803	ND	.00333	mg/kg	
Holloman Table 2	SW8240	S	.	.0009491	ND	.00340	mg/kg	
Holloman Table 2	SW8240	S	.	.0031525	ND	.00342	mg/kg	
Holloman Table 2	SW8240	S	.	.0003139	ND	.00320	mg/kg	
Holloman Table 2	SW8240	S	.	.0002291	ND	.00317	mg/kg	
Holloman Table 2	SW8240	S	.	.0021628	ND	.00312	mg/kg	
Holloman Table 2	SW8240	S	.00343	.0034300	DET	.00411	mg/kg	J

N = 19

--------- SWMUs Group=129/178 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.00033657	ND	.00325	mg/kg	
Holloman Table 2	SW8240	S	.	.00019939	ND	.00341	mg/kg	
Holloman Table 2	SW8240	S	.	.00041496	ND	.00364	mg/kg	
Holloman Table 2	SW8240	S	.	.00039676	ND	.00347	mg/kg	

--------- SWMUs Group=129/178 Method=Organics Analyte=Xylene (total) ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0005071	ND	.00356	mg/kg	
Holloman Table 2	SW8240	S	.001430	.0014300	DET	.00347	mg/kg	J
Holloman Table 2	SW8240	S	.000946	.0009460	DET	.00364	mg/kg	J
Holloman Table 2	SW8240	S	.	.0003019	ND	.00340	mg/kg	
Holloman Table 2	SW8240	S	.	.0003913	ND	.00366	mg/kg	
Holloman Table 2	SW8240	S	.	.0001887	ND	.00390	mg/kg	
Holloman Table 2	SW8240	S	.	.0003046	ND	.00422	mg/kg	
Holloman Table 2	SW8240	S	.	.0002157	ND	.00415	mg/kg	
Holloman Table 2	SW8240	S	.	.0000147	ND	.00387	mg/kg	
Holloman Table 2	SW8240	S	.	.0004018	ND	.00395	mg/kg	
Holloman Table 2	SW8240	S	.	.0003930	ND	.00397	mg/kg	
Holloman Table 2	SW8240	S	.	.0000120	ND	.00372	mg/kg	
Holloman Table 2	SW8240	S	.	.0000034	ND	.00368	mg/kg	
Holloman Table 2	SW8240	S	.	.0008701	ND	.00362	mg/kg	
Holloman Table 2	SW8240	S	.	.0009347	ND	.00576	mg/kg	

N = 19

--- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	75.638	ND	51.7	ug/kg	
Holloman Table 2	SW8270	S	.	25.786	ND	54.9	ug/kg	
Holloman Table 2	SW8270	S	.	23.467	ND	58.1	ug/kg	
Holloman Table 2	SW8270	S	.	68.005	ND	55.7	ug/kg	
Holloman Table 2	SW8270	S	.	84.792	ND	54.4	ug/kg	
Holloman Table 2	SW8270	S	.	20.218	ND	53.6	ug/kg	
Holloman Table 2	SW8270	S	.	89.119	ND	56.0	ug/kg	
Holloman Table 2	SW8270	S	.	50.558	ND	51.9	ug/kg	
Holloman Table 2	SW8270	S	.	14.647	ND	56.7	ug/kg	
Holloman Table 2	SW8270	S	.	60.041	ND	60.1	ug/kg	
Holloman Table 2	SW8270	S	.	80.616	ND	64.7	ug/kg	
Holloman Table 2	SW8270	S	.	36.881	ND	64.1	ug/kg	
Holloman Table 2	SW8270	S	.	23.988	ND	59.4	ug/kg	
Holloman Table 2	SW8270	S	.	77.532	ND	60.7	ug/kg	
Holloman Table 2	SW8270	S	.	12.302	ND	61.1	ug/kg	
Holloman Table 2	SW8270	S	.	35.972	ND	103.0	ug/kg	
Holloman Table 2	SW8270	S	266.0	266.000	DET	115.0	ug/kg	
Holloman Table 2	SW8270	S	105.0	105.000	DET	99.5	ug/kg	
Holloman Table 2	SW8270	S	89.2	89.200	DET	101.0	ug/kg	J
Holloman Table 2	SW8270	S	471.0	471.000	DET	105.0	ug/kg	
Holloman Table 2	SW8270	S	.	74.400	ND	56.8	ug/kg	
Holloman Table 2	SW8270	S	.	12.245	ND	55.6	ug/kg	
Holloman Table 2	SW8270	S	.	9.960	ND	64.2	ug/kg	

--- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	82.2855	ND	58.6	ug/kg	
Holloman Table 2	SW8270	S	.	82.1688	ND	61.9	ug/kg	
Holloman Table 2	SW8270	S	.	18.0517	ND	55.0	ug/kg	
Holloman Table 2	SW8270	S	.	76.5929	ND	55.1	ug/kg	
Holloman Table 2	SW8270	S	.	71.8528	ND	61.3	ug/kg	
Holloman Table 2	SW8270	S	.	48.9027	ND	113.0	ug/kg	
Holloman Table 2	SW8270	S	.	1.8089	ND	328.0	ug/kg	
Holloman Table 2	SW8270	S	.	80.9978	ND	108.0	ug/kg	
Holloman Table 2	SW8270	S	.	32.6791	ND	110.0	ug/kg	

N = 32

---------- SWMUs Group=164 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.960	1.960	DET	0.681	mg/kg	
Holloman Table 2	SW7060	S	1.170	1.170	DET	0.762	mg/kg	
Holloman Table 2	SW7060	S	0.635	0.635	DET	0.716	mg/kg	J
Holloman Table 2	SW7060	S	2.350	2.350	DET	0.768	mg/kg	
Holloman Table 2	SW7060	S	3.170	3.170	DET	0.793	mg/kg	
Holloman Table 2	SW7060	S	1.930	1.930	DET	0.587	mg/kg	
Holloman Table 2	SW7060	S	-0.175	-0.175	DET	0.628	mg/kg	J
Holloman Table 2	SW7060	S	1.050	1.050	DET	0.700	mg/kg	

N = 8

---------- SWMUs Group=164 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	28.4	28.4	DET	0.0523	mg/kg	
Holloman Table 2	SW6010	S	36.8	36.8	DET	0.0542	mg/kg	
Holloman Table 2	SW6010	S	29.5	29.5	DET	0.0549	mg/kg	
Holloman Table 2	SW6010	S	28.9	28.9	DET	0.0509	mg/kg	
Holloman Table 2	SW6010	S	33.2	33.2	DET	0.0609	mg/kg	
Holloman Table 2	SW6010	S	20.6	20.6	DET	0.0496	mg/kg	
Holloman Table 2	SW6010	S	47.6	47.6	DET	0.0546	mg/kg	
Holloman Table 2	SW6010	S	36.0	36.0	DET	0.0597	mg/kg	

N = 8

---------- SWMUs Group=164 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0244	0.0244	DET	0.259	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0935	-0.0935	DET	0.268	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.1070	-0.1070	DET	0.272	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0343	-0.0343	DET	0.252	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2930	0.2930	DET	0.302	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0180	0.0180	DET	0.246	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0736	0.0736	DET	0.271	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0113	-0.0113	DET	0.296	mg/kg	BJ

N = 8

---------- SWMUs Group=164 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	4.66	4.66	DET	0.247	mg/kg	B
Holloman Table 2	SW6010	S	5.99	5.99	DET	0.255	mg/kg	B
Holloman Table 2	SW6010	S	5.29	5.29	DET	0.259	mg/kg	B
Holloman Table 2	SW6010	S	6.16	6.16	DET	0.240	mg/kg	B
Holloman Table 2	SW6010	S	6.33	6.33	DET	0.287	mg/kg	B
Holloman Table 2	SW6010	S	3.73	3.73	DET	0.234	mg/kg	B
Holloman Table 2	SW6010	S	5.29	5.29	DET	0.258	mg/kg	B
Holloman Table 2	SW6010	S	6.99	6.99	DET	0.281	mg/kg	B

N = 8

---------- SWMUs Group=164 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	1.86	1.86	DET	0.316	mg/kg	B
Holloman Table 2	SW7421	S	2.02	2.02	DET	0.299	mg/kg	B
Holloman Table 2	SW7421	S	1.71	1.71	DET	0.297	mg/kg	B
Holloman Table 2	SW7421	S	13.70	13.70	DET	0.306	mg/kg	B
Holloman Table 2	SW7421	S	11.90	11.90	DET	0.314	mg/kg	B
Holloman Table 2	SW7421	S	3.18	3.18	DET	0.299	mg/kg	B
Holloman Table 2	SW7421	S	2.36	2.36	DET	0.300	mg/kg	B
Holloman Table 2	SW7421	S	14.10	14.10	DET	0.312	mg/kg	B

N = 8

--------- SWMUs Group=164 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.00962	0.00962	DET	0.0154	mg/kg	J
Holloman Table 2	SW7471	S	-0.03050	-0.03050	DET	0.0146	mg/kg	J
Holloman Table 2	SW7471	S	-0.05250	-0.05250	DET	0.0148	mg/kg	J
Holloman Table 2	SW7471	S	-0.05190	-0.05190	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.01000	-0.01000	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.03700	-0.03700	DET	0.0148	mg/kg	J
Holloman Table 2	SW7471	S	-0.01270	-0.01270	DET	0.0152	mg/kg	J
Holloman Table 2	SW7471	S	-0.04110	-0.04110	DET	0.0152	mg/kg	J

N = 8

---------- SWMUs Group=164 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.51	2.51	DET	0.243	mg/kg	
Holloman Table 2	SW7740	S	1.91	1.91	DET	0.273	mg/kg	
Holloman Table 2	SW7740	S	2.58	2.58	DET	0.256	mg/kg	
Holloman Table 2	SW7740	S	2.44	2.44	DET	0.274	mg/kg	
Holloman Table 2	SW7740	S	2.53	2.53	DET	0.283	mg/kg	
Holloman Table 2	SW7740	S	2.06	2.06	DET	0.210	mg/kg	
Holloman Table 2	SW7740	S	2.39	2.39	DET	0.225	mg/kg	
Holloman Table 2	SW7740	S	2.46	2.46	DET	0.250	mg/kg	

N = 8

---------- SWMUs Group=164 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.543	-0.543	DET	0.165	mg/kg	J
Holloman Table 2	SW6010	S	-0.660	-0.660	DET	0.171	mg/kg	J
Holloman Table 2	SW6010	S	-0.482	-0.482	DET	0.174	mg/kg	J
Holloman Table 2	SW6010	S	-0.158	-0.158	DET	0.161	mg/kg	J
Holloman Table 2	SW6010	S	-0.244	-0.244	DET	0.192	mg/kg	J
Holloman Table 2	SW6010	S	-0.139	-0.139	DET	0.157	mg/kg	J
Holloman Table 2	SW6010	S	-0.034	-0.034	DET	0.173	mg/kg	J
Holloman Table 2	SW6010	S	-0.626	-0.626	DET	0.189	mg/kg	J

N = 8

--------- SWMUs Group=164 Method=Organics Analyte=1,1-Dichloroeth ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.630	0.63000	DET	0.84400	mg/kg	J
Holloman Table 2	SW8240	S	.	0.42689	ND	0.00287	mg/kg	
Holloman Table 2	SW8240	S	0.619	0.61900	DET	0.80000	mg/kg	J
Holloman Table 2	SW8240	S	.	0.49235	ND	0.00273	mg/kg	
Holloman Table 2	SW8240	S	.	0.21318	ND	0.00272	mg/kg	

N = 5

---------- SWMUs Group=164 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.005231	ND	1.35000	mg/kg	
Holloman Table 2	SW8240	S	.	0.015850	ND	0.00168	mg/kg	
Holloman Table 2	SW8240	S	.	0.022030	ND	1.28000	mg/kg	
Holloman Table 2	SW8240	S	0.0266	0.026600	DET	0.00160	mg/kg	B
Holloman Table 2	SW8240	S	.	0.006984	ND	0.00159	mg/kg	

N = 5

---------- SWMUs Group=164 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.257	0.25700	DET	1.16000	mg/kg	J
Holloman Table 2	SW8240	S	.	0.11860	ND	0.00193	mg/kg	
Holloman Table 2	SW8240	S	0.276	0.27600	DET	1.10000	mg/kg	J
Holloman Table 2	SW8240	S	.	0.04973	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.10526	ND	0.00183	mg/kg	

N = 5

---------- SWMUs Group=164 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	54.2000	54.2000	DET	0.77300	mg/kg	
Holloman Table 2	SW8240	S	0.0034	0.0034	DET	0.00185	mg/kg	
Holloman Table 2	SW8240	S	54.7000	54.7000	DET	0.73200	mg/kg	
Holloman Table 2	SW8240	S	.	0.0017	ND	0.00176	mg/kg	
Holloman Table 2	SW8240	S	.	0.0030	ND	0.00176	mg/kg	

N = 5

---------- SWMUs Group=164 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	8.37	8.37	DET	31.6	mg/kg	J
Holloman Table 2	E418.1	S	11.80	11.80	DET	31.7	mg/kg	J

N = 2

---------- SWMUs Group=164 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	40.6000	40.6000	DET	0.48500	mg/kg	
Holloman Table 2	SW8240	S	0.0043	0.0043	DET	0.00191	mg/kg	
Holloman Table 2	SW8240	S	41.4000	41.4000	DET	0.46000	mg/kg	
Holloman Table 2	SW8240	S	.	0.0030	ND	0.00181	mg/kg	
Holloman Table 2	SW8240	S	.	0.0010	ND	0.00181	mg/kg	

N = 5

---------- SWMUs Group=164 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	106.000	106.000	DET	1.51000	mg/kg	B
Holloman Table 2	SW8240	S	0.006	0.006	DET	0.00408	mg/kg	
Holloman Table 2	SW8240	S	105.000	105.000	DET	1.43000	mg/kg	B
Holloman Table 2	SW8240	S	.	0.003	ND	0.00387	mg/kg	
Holloman Table 2	SW8240	S	.	0.002	ND	0.00387	mg/kg	

N = 5

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Antimony --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	
Holloman 29 Sites	SW6010	S	23	23	DET	23	mg/kg	
Holloman 29 Sites	SW6010	S	18	18	DET	18	mg/kg	
Holloman 29 Sites	SW6010	S	29	29	DET	29	mg/kg	

N = 5

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Arsenic --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7060	S	3.70	3.70	DET	0.45	mg/kg	
Holloman 29 Sites	SW7060	S	0.99	0.99	DET	0.45	mg/kg	@
Holloman 29 Sites	SW7060	S	1.60	1.60	DET	0.44	mg/kg	@
Holloman 29 Sites	SW7060	S	28.00	28.00	DET	3.60	mg/kg	
Holloman 29 Sites	SW7060	S	34.00	34.00	DET	9.30	mg/kg	@

N = 5

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Barium ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	84.0	84.0	DET	0.0502	mg/kg	B
Holloman Table 2	SW6010	S	52.9	52.9	DET	0.0439	mg/kg	B
Holloman Table 2	SW6010	S	44.0	44.0	DET	0.0584	mg/kg	
Holloman Table 2	SW6010	S	41.2	41.2	DET	0.0569	mg/kg	B
Holloman Table 2	SW6010	S	50.6	50.6	DET	0.0516	mg/kg	B
Holloman Table 2	SW6010	S	38.9	38.9	DET	0.0613	mg/kg	B
Holloman Table 2	SW6010	S	39.9	39.9	DET	0.0529	mg/kg	
Holloman Table 2	SW6010	S	50.1	50.1	DET	0.0474	mg/kg	
Holloman Table 2	SW6010	S	38.1	38.1	DET	0.0557	mg/kg	

N = 9

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Beryllium -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	0.48	0.48	DET	0.48	mg/kg	
Holloman 29 Sites	SW6010	S	0.47	0.47	DET	0.47	mg/kg	
Holloman 29 Sites	SW6010	S	0.46	0.46	DET	0.46	mg/kg	
Holloman 29 Sites	SW6010	S	0.57	0.57	DET	0.37	mg/kg	@
Holloman 29 Sites	SW6010	S	0.58	0.58	DET	0.57	mg/kg	@

N = 5

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Cadmium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	38	38	DET	1.2	mg/kg	
Holloman 29 Sites	SW6010	S	4	4	DET	1.2	mg/kg	@

-------- .us Group=165/177/179/181 Method=Inorganics Analyte=Cadmium --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	1.2000	1.2000	DET	1.200	mg/kg	
Holloman 29 Sites	SW6010	S	7.3000	7.3000	DET	0.920	mg/kg	
Holloman 29 Sites	SW6010	S	7.8000	7.8000	DET	1.400	mg/kg	
Holloman Table 2	SW6010	S	11.3000	11.3000	DET	0.249	mg/kg	
Holloman Table 2	SW6010	S	0.3640	0.3640	DET	0.218	mg/kg	B
Holloman Table 2	SW6010	S	0.0484	0.0484	DET	0.290	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0255	0.0255	DET	0.282	mg/kg	BJ
Holloman Table 2	SW6010	S	0.4990	0.4990	DET	0.256	mg/kg	B
Holloman Table 2	SW6010	S	0.1580	0.1580	DET	0.304	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1610	0.1610	DET	0.262	mg/kg	BJ
Holloman Table 2	SW6010	S	0.5700	0.5700	DET	0.235	mg/kg	B
Holloman Table 2	SW6010	S	0.0654	0.0654	DET	0.276	mg/kg	BJ

N = 14

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Chromium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	190.00	190.00	DET	2.400	mg/kg	
Holloman 29 Sites	SW6010	S	130.00	130.00	DET	2.400	mg/kg	
Holloman 29 Sites	SW6010	S	8.60	8.60	DET	2.300	mg/kg	@
Holloman 29 Sites	SW6010	S	26.00	26.00	DET	1.800	mg/kg	
Holloman 29 Sites	SW6010	S	47.00	47.00	DET	2.900	mg/kg	
Holloman Table 2	SW6010	S	47.80	47.80	DET	0.237	mg/kg	B
Holloman Table 2	SW6010	S	10.60	10.60	DET	0.207	mg/kg	B
Holloman Table 2	SW6010	S	7.18	7.18	DET	0.276	mg/kg	B
Holloman Table 2	SW6010	S	6.68	6.68	DET	0.268	mg/kg	B
Holloman Table 2	SW6010	S	8.36	8.36	DET	0.243	mg/kg	B
Holloman Table 2	SW6010	S	7.84	7.84	DET	0.289	mg/kg	B
Holloman Table 2	SW6010	S	5.73	5.73	DET	0.249	mg/kg	B
Holloman Table 2	SW6010	S	10.70	10.70	DET	0.223	mg/kg	B
Holloman Table 2	SW6010	S	5.30	5.30	DET	0.262	mg/kg	B

N = 14

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Copper ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	110	110	DET	4.8	mg/kg	
Holloman 29 Sites	SW6010	S	19	19	DET	4.7	mg/kg	@
Holloman 29 Sites	SW6010	S	14	14	DET	4.6	mg/kg	@

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Copper ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	91	91	DET	3.7	mg/kg	
Holloman 29 Sites	SW6010	S	140	140	DET	5.7	mg/kg	

N = 5

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7421	S	210.00	210.00	DET	14.000	mg/kg	
Holloman 29 Sites	SW7421	S	10.00	10.00	DET	0.680	mg/kg	
Holloman 29 Sites	SW7421	S	180.00	180.00	DET	13.000	mg/kg	
Holloman 29 Sites	SW7421	S	1300.00	1300.00	DET	110.000	mg/kg	
Holloman 29 Sites	SW7421	S	1100.00	1100.00	DET	140.000	mg/kg	
Holloman Table 2	SW7421	S	109.00	109.00	DET	3.960	mg/kg	S
Holloman Table 2	SW7421	S	275.00	275.00	DET	7.520	mg/kg	B
Holloman Table 2	SW7421	S	14.40	14.40	DET	0.163	mg/kg	S
Holloman Table 2	SW7421	S	5.38	5.38	DET	0.072	mg/kg	
Holloman Table 2	SW7421	S	0.26	0.26	DET	0.007	mg/kg	B
Holloman Table 2	SW7421	S	5.22	5.22	DET	0.082	mg/kg	
Holloman Table 2	SW7421	S	6.07	6.07	DET	0.153	mg/kg	S
Holloman Table 2	SW7421	S	288.00	288.00	DET	7.250	mg/kg	S
Holloman Table 2	SW7421	S	12.50	12.50	DET	0.317	mg/kg	SB

N = 14

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Mercury --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7471	S	0.074	0.074	DET	0.053	mg/kg	@
Holloman 29 Sites	SW7471	S	0.060	0.060	DET	0.060	mg/kg	
Holloman 29 Sites	SW7471	S	0.064	0.064	DET	0.064	mg/kg	
Holloman 29 Sites	SW7471	S	0.063	0.063	DET	0.050	mg/kg	@
Holloman 29 Sites	SW7471	S	0.069	0.069	DET	0.069	mg/kg	

N = 5

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Nickel ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	31.0	31.0	DET	4.8	mg/kg	
Holloman 29 Sites	SW6010	S	58.0	58.0	DET	4.7	mg/kg	
Holloman 29 Sites	SW6010	S	6.5	6.5	DET	4.6	mg/kg	@
Holloman 29 Sites	SW6010	S	23.0	23.0	DET	3.7	mg/kg	
Holloman 29 Sites	SW6010	S	21.0	21.0	DET	5.7	mg/kg	@

N = 5

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Selenium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7740	S	0.57	0.57	DET	0.57	mg/kg	
Holloman 29 Sites	SW7740	S	0.57	0.57	DET	0.57	mg/kg	
Holloman 29 Sites	SW7740	S	0.55	0.55	DET	0.55	mg/kg	
Holloman 29 Sites	SW7740	S	0.45	0.45	DET	0.45	mg/kg	
Holloman 29 Sites	SW7740	S	0.58	0.58	DET	0.58	mg/kg	

N = 5

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Silver ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	2.4000	2.4000	DET	2.400	mg/kg	
Holloman 29 Sites	SW6010	S	2.4000	2.4000	DET	2.400	mg/kg	
Holloman 29 Sites	SW6010	S	2.3000	2.3000	DET	2.300	mg/kg	
Holloman 29 Sites	SW6010	S	1.8000	1.8000	DET	1.800	mg/kg	
Holloman 29 Sites	SW6010	S	12.0000	12.0000	DET	2.900	mg/kg	@
Holloman Table 2	SW6010	S	0.0234	0.0234	DET	0.159	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.6800	-0.6800	DET	0.139	mg/kg	J
Holloman Table 2	SW6010	S	0.2390	0.2390	DET	0.185	mg/kg	
Holloman Table 2	SW6010	S	-0.0658	-0.0658	DET	0.180	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1780	0.1780	DET	0.163	mg/kg	B
Holloman Table 2	SW6010	S	0.5500	0.5500	DET	0.194	mg/kg	B
Holloman Table 2	SW6010	S	0.1320	0.1320	DET	0.167	mg/kg	J
Holloman Table 2	SW6010	S	0.2330	0.2330	DET	0.150	mg/kg	
Holloman Table 2	SW6010	S	0.6000	0.6000	DET	0.176	mg/kg	

N = 14

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Thallium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	
Holloman 29 Sites	SW6010	S	23	23	DET	23	mg/kg	
Holloman 29 Sites	SW6010	S	18	18	DET	18	mg/kg	
Holloman 29 Sites	SW6010	S	29	29	DET	29	mg/kg	

N = 5

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	540	540	DET	4.8	mg/kg	
Holloman 29 Sites	SW6010	S	130	130	DET	4.7	mg/kg	
Holloman 29 Sites	SW6010	S	30	30	DET	4.6	mg/kg	
Holloman 29 Sites	SW6010	S	250	250	DET	3.7	mg/kg	
Holloman 29 Sites	SW6010	S	180	180	DET	5.7	mg/kg	

N = 5

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,1-Trichloroethane --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,2,2-Tetrachloroethane

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,2-Trichloroethane --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1-Dichloroethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1-Dichloroethene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.120	0.120	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.022	0.022	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.140	0.140	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.018	0.018	DET	0.11	mg/kg	J
Holloman 29 Sites	SW8240	S	0.150	0.150	DET	0.15	mg/kg	

N = 5

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,2-Dichloroethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,2-Dichloropropane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Chloroethyl vinyl ether

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24	DET	0.24	mg/kg	
Holloman 29 Sites	SW8240	S	0.26	0.26	DET	0.26	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.23	0.23	DET	0.23	mg/kg	
Holloman 29 Sites	SW8240	S	0.30	0.30	DET	0.30	mg/kg	

N = 5

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Hexanone --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.2	1.2	DET	1.2	mg/kg	
Holloman 29 Sites	SW8240	S	1.3	1.3	DET	1.3	mg/kg	
Holloman 29 Sites	SW8240	S	1.4	1.4	DET	1.4	mg/kg	
Holloman 29 Sites	SW8240	S	1.1	1.1	DET	1.1	mg/kg	
Holloman 29 Sites	SW8240	S	1.5	1.5	DET	1.5	mg/kg	

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.2	1.2	DET	1.2	mg/kg	
Holloman 29 Sites	SW8240	S	1.3	1.3	DET	1.3	mg/kg	
Holloman 29 Sites	SW8240	S	1.4	1.4	DET	1.4	mg/kg	
Holloman 29 Sites	SW8240	S	1.1	1.1	DET	1.1	mg/kg	
Holloman 29 Sites	SW8240	S	1.5	1.5	DET	1.5	mg/kg	

N = 5

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Acetone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.4	2.4	DET	2.4	mg/kg	
Holloman 29 Sites	SW8240	S	2.6	2.6	DET	2.6	mg/kg	
Holloman 29 Sites	SW8240	S	2.8	2.8	DET	2.8	mg/kg	
Holloman 29 Sites	SW8240	S	2.3	2.3	DET	2.3	mg/kg	
Holloman 29 Sites	SW8240	S	3.0	3.0	DET	3.0	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Acetophenone -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	19.9412	ND	19.3	ug/kg	
Holloman Table 2	SW8270	S	.	19.0637	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	21.6491	ND	22.5	ug/kg	
Holloman Table 2	SW8270	S	.	4.3197	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	0.6906	ND	18.4	ug/kg	
Holloman Table 2	SW8270	S	23.4	23.4000	DET	17.0	ug/kg	
Holloman Table 2	SW8270	S	.	10.6549	ND	18.5	ug/kg	

N = 7

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Anthracene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	7.9542	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	4.1913	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	.	18.8165	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	20.8481	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	3.6546	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	24	24.0000	DET	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	23.0434	ND	25.1	ug/kg	

N = 7

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzene ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzo(a)anthracene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	110.359	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	41.124	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	91.909	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	.	61.438	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	7.632	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	119	119.000	DET	21.6	ug/kg	
Holloman Table 2	SW8270	S	.	35.385	ND	23.5	ug/kg	

N = 7

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzo(a)pyrene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	58.0028	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	92.8330	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	20.3595	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	72.8888	ND	38.8	ug/kg	
Holloman Table 2	SW8270	S	.	83.2011	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	98.5	98.5000	DET	27.3	ug/kg	
Holloman Table 2	SW8270	S	.	78.4071	ND	29.7	ug/kg	

N = 7

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzo(b)fluoranthene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	30.4235	ND	31.3	ug/kg	
Holloman Table 2	SW8270	S	.	48.1493	ND	46.7	ug/kg	
Holloman Table 2	SW8270	S	.	82.5756	ND	46.0	ug/kg	

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzo(b)fluoranthene ---
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	162.942	ND	51.3	ug/kg	
Holloman Table 2	SW8270	S	.	82.400	ND	29.8	ug/kg	
Holloman Table 2	SW8270	S	170	170.000	DET	27.6	ug/kg	F
Holloman Table 2	SW8270	S	.	8.793	ND	30.0	ug/kg	

N = 7

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzo(g,h,i)perylene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	8.9462	ND	30.1	ug/kg	
Holloman Table 2	SW8270	S	.	3.3921	ND	50.2	ug/kg	
Holloman Table 2	SW8270	S	.	14.9849	ND	49.5	ug/kg	
Holloman Table 2	SW8270	S	.	19.0402	ND	55.1	ug/kg	
Holloman Table 2	SW8270	S	.	13.0669	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	23.2	23.2000	DET	26.6	ug/kg	J
Holloman Table 2	SW8270	S	.	19.0183	ND	28.8	ug/kg	

N = 7

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzo(k)fluoranthene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	38.906	ND	39.3	ug/kg	
Holloman Table 2	SW8270	S	.	94.113	ND	48.9	ug/kg	
Holloman Table 2	SW8270	S	.	76.611	ND	48.2	ug/kg	
Holloman Table 2	SW8270	S	.	21.504	ND	53.7	ug/kg	
Holloman Table 2	SW8270	S	.	45.060	ND	37.5	ug/kg	
Holloman Table 2	SW8270	S	170	170.000	DET	34.7	ug/kg	F
Holloman Table 2	SW8270	S	.	103.736	ND	37.7	ug/kg	

N = 7

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromodichloromethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromodichloromethane ---
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromomethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24	DET	0.24	mg/kg	
Holloman 29 Sites	SW8240	S	0.26	0.26	DET	0.26	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.23	0.23	DET	0.23	mg/kg	
Holloman 29 Sites	SW8240	S	0.30	0.30	DET	0.30	mg/kg	

N = 5

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Carbon disulfide -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Carbon tetrachloride ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chlorobenzene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloroethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24	DET	0.24	mg/kg	
Holloman 29 Sites	SW8240	S	0.26	0.26	DET	0.26	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.23	0.23	DET	0.23	mg/kg	
Holloman 29 Sites	SW8240	S	0.30	0.30	DET	0.30	mg/kg	

N = 5

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloroform --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloromethane ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24	DET	0.24	mg/kg	
Holloman 29 Sites	SW8240	S	0.26	0.26	DET	0.26	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.23	0.23	DET	0.23	mg/kg	
Holloman 29 Sites	SW8240	S	0.30	0.30	DET	0.30	mg/kg	

N = 5

-------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Chrysene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	3.113	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	16.261	ND	44.1	ug/kg	
Holloman Table 2	SW8270	S	16.7	16.700	DET	43.4	ug/kg	J
Holloman Table 2	SW8270	S	.	12.698	ND	48.4	ug/kg	
Holloman Table 2	SW8270	S	.	8.079	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	152.0	152.000	DET	28.6	ug/kg	
Holloman Table 2	SW8270	S	.	7.449	ND	31.1	ug/kg	

N = 7

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Di-n-octylphthalate ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	70.80	ND	35.5	ug/kg	
Holloman Table 2	SW8270	S	.	258.96	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	770.59	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	526.54	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	337.60	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	1020	1020.00	DET	31.3	ug/kg	
Holloman Table 2	SW8270	S	.	794.18	ND	34.0	ug/kg	

N = 7

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Dibromochloromethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Ethyl benzene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.1200	0.1200	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.0059	0.0059	DET	0.13	mg/kg	J

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Ethyl benzene ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	14.464	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	5.728	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	16.9	16.900	DET	25.8	ug/kg	J
Holloman Table 2	SW8270	S	.	1.647	ND	28.8	ug/kg	
Holloman Table 2	SW8270	S	.	16.742	NO	26.6	ug/kg	
Holloman Table 2	SW8270	S	230.0	230.000	DET	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	7.184	ND	26.7	ug/kg	

N = 7

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Hydrocarbons -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	E418.1	S	20700.0	20700.0	DET	610.0	mg/kg	
Holloman 29 Sites	E418.1	S	95.6	95.6	DET	12.4	mg/kg	
Holloman 29 Sites	E418.1	S	50.2	50.2	DET	13.4	mg/kg	
Holloman 29 Sites	E418.1	S	660.0	660.0	DET	24.0	mg/kg	
Holloman 29 Sites	E418.1	S	811.0	811.0	DET	35.0	mg/kg	

N = 5

- SWMUs Group=165/177/179/181 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	5.4892	ND	23.6	ug/kg	
Holloman Table 2	SW8270	S	.	19.3883	ND	39.3	ug/kg	
Holloman Table 2	SW8270	S	.	29.5266	ND	38.7	ug/kg	
Holloman Table 2	SW8270	S	.	21.7127	ND	43.1	ug/kg	
Holloman Table 2	SW8270	S	.	21.8675	ND	22.5	ug/kg	

- SWMUs Group=165/177/179/181 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene --
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	35.1	35.1000	DET	20.8	ug/kg	
Holloman Table 2	SW8270	S	.	24.5876	ND	22.6	ug/kg	

N = 7

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Methyl ethyl ketone ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.4	2.4	DET	2.4	mg/kg	
Holloman 29 Sites	SW8240	S	2.6	2.6	DET	2.6	mg/kg	
Holloman 29 Sites	SW8240	S	2.8	2.8	DET	2.8	mg/kg	
Holloman 29 Sites	SW8240	S	2.3	2.3	DET	2.3	mg/kg	
Holloman 29 Sites	SW8240	S	3.0	3.0	DET	3.0	mg/kg	

N = 5

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Methylene Chloride ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.054	0.054	DET	0.12	mg/kg	J
Holloman 29 Sites	SW8240	S	0.260	0.260	DET	0.13	mg/kg	@
Holloman 29 Sites	SW8240	S	0.720	0.720	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.350	0.350	DET	0.11	mg/kg	@
Holloman 29 Sites	SW8240	S	0.036	0.036	DET	0.15	mg/kg	J

N = 5

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Percent moisture -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	D2216	S	17	17	DET	.	percent	
Holloman 29 Sites	D2216	S	23	23	DET	.	percent	
Holloman 29 Sites	D2216	S	29	29	DET	.	percent	
Holloman 29 Sites	D2216	S	12	12	DET	.	percent	
Holloman 29 Sites	D2216	S	34	34	DET	.	percent	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Phenanthrene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	62.675	ND	36.2	ug/kg	
Holloman Table 2	SW8270	S	.	70.610	NO	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	73.116	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	51.716	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	33.638	ND	34.6	ug/kg	
Holloman Table 2	SW8270	S	124	124.000	DET	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	24.712	ND	34.7	ug/kg	

N = 7

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	10.320	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	.	13.025	ND	31.5	ug/kg	
Holloman Table 2	SW8270	S	15.9	15.900	DET	31.0	ug/kg	J
Holloman Table 2	SW8270	S	.	1.168	ND	34.5	ug/kg	
Holloman Table 2	SW8270	S	.	8.620	ND	18.9	ug/kg	
Holloman Table 2	SW8270	S	206.0	206.000	DET	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	6.787	ND	19.0	ug/kg	

N = 7

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Styrene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Tetrachloroethene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.120	0.120	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.028	0.028	DET	0.13	mg/kg	J

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Tetrachloroethene ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Toluene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	.0089	.0089	DET	0.12	mg/kg	J
Holloman 29 Sites	SW8240	S	.0093	.0093	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	.0091	.0091	DET	0.14	mg/kg	J
Holloman 29 Sites	SW8240	S	.0080	.0080	DET	0.11	mg/kg	J
Holloman 29 Sites	SW8240	S	.0091	.0091	DET	0.15	mg/kg	J

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=Tribromomethane(Bromoform)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Trichloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl Chloride ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24	DET	0.24	mg/kg	
Holloman 29 Sites	SW8240	S	0.26	0.26	DET	0.26	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.23	0.23	DET	0.23	mg/kg	
Holloman 29 Sites	SW8240	S	0.30	0.30	DET	0.30	mg/kg	

N = 5

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl acetate ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Xylene (total) ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.038	0.038	DET	0.12	mg/kg	J
Holloman 29 Sites	SW8240	S	0.013	0.013	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.140	0.140	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.110	0.110	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.150	0.150	DET	0.15	mg/kg	

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	168.408	ND	66.3	ug/kg	
Holloman Table 2	SW8270	S	.	236.190	ND	118.0	ug/kg	
Holloman Table 2	SW8270	S	.	149.092	ND	116.0	ug/kg	
Holloman Table 2	SW8270	S	.	24.666	ND	130.0	ug/kg	
Holloman Table 2	SW8270	S	.	226.632	ND	63.3	ug/kg	
Holloman Table 2	SW8270	S	281	281.000	DET	58.5	ug/kg	

SWMUs Group=165/177/179/181 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate (continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	45.1820	ND	63.5	ug/kg	

N = 7

- SWMUs Group=165/177/179/181 Method=Organics Analyte=cis-1,3-Dichloropropene -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=trans-1,2-Dichloroethene

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

SWMUs Group=165/177/179/181 Method=Organics Analyte=trans-1,3-Dichloropropene

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12	DET	0.12	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.11	0.11	DET	0.11	mg/kg	
Holloman 29 Sites	SW8240	S	0.15	0.15	DET	0.15	mg/kg	

N = 5

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Arsenic --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	3.16	3.16	DET	0.311	mg/kg	
Holloman Table 2	SW7060	S	3.49	3.49	DET	0.313	mg/kg	
Holloman Table 2	SW7060	S	2.35	2.35	DET	0.281	mg/kg	
Holloman Table 2	SW7060	S	3.50	3.50	DET	0.245	mg/kg	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Barium ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	65.5	65.5	DET	0.0510	mg/kg	B
Holloman Table 2	SW6010	S	77.4	77.4	DET	0.0471	mg/kg	B
Holloman Table 2	SW6010	S	59.6	59.6	DET	0.0466	mg/kg	B
Holloman Table 2	SW6010	S	44.3	44.3	DET	0.0384	mg/kg	B

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Cadmium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.919	0.919	DET	0.253	mg/kg	B
Holloman Table 2	SW6010	S	2.310	2.310	DET	0.234	mg/kg	B
Holloman Table 2	SW6010	S	0.119	0.119	DET	0.231	mg/kg	BJ
Holloman Table 2	SW6010	S	0.776	0.776	DET	0.191	mg/kg	B

N = 4

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Chromium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	16.00	16.00	DET	0.240	mg/kg	B
Holloman Table 2	SW6010	S	27.80	27.80	DET	0.222	mg/kg	B
Holloman Table 2	SW6010	S	9.75	9.75	DET	0.220	mg/kg	B
Holloman Table 2	SW6010	S	11.30	11.30	DET	0.181	mg/kg	B

N = 4

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	60.50	60.50	DET	1.33	mg/kg	SB
Holloman Table 2	SW7421	S	220.00	220.00	DET	13.40	mg/kg	SB
Holloman Table 2	SW7421	S	7.52	7.52	DET	0.12	mg/kg	SB
Holloman Table 2	SW7421	S	95.70	95.70	DET	5.26	mg/kg	SB

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Mercury --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.0169	-0.0169	DET	0.0135	mg/kg	J
Holloman Table 2	SW7471	S	0.0135	0.0135	DET	0.0130	mg/kg	
Holloman Table 2	SW7471	S	-0.0181	-0.0181	DET	0.0145	mg/kg	J
Holloman Table 2	SW7471	S	-0.0147	-0.0147	DET	0.0141	mg/kg	J

N = 4

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Selenium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.930	1.930	DET	0.236	mg/kg	
Holloman Table 2	SW7740	S	0.896	0.896	DET	0.237	mg/kg	
Holloman Table 2	SW7740	S	2.000	2.000	DET	0.212	mg/kg	
Holloman Table 2	SW7740	S	1.830	1.830	DET	0.186	mg/kg	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Silver ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.736	-0.736	DET	0.161	mg/kg	J
Holloman Table 2	SW6010	S	-0.326	-0.326	DET	0.149	mg/kg	J
Holloman Table 2	SW6010	S	-0.426	-0.426	DET	0.147	mg/kg	J
Holloman Table 2	SW6010	S	0.366	0.366	DET	0.122	mg/kg	

N = 4

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2-Methylnaphthalene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	201	201.000	DET	142.00	ug/kg	
Walk Hydell	SW8270	S	.	160.429	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	192.023	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	118.727	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	194.182	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	101.643	ND	726.07	ug/kg	

N = 6

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Acetone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.001686	ND	0.00141	mg/kg	
Holloman Table 2	SW8240	S	0.02180	0.021800	DET	0.00136	mg/kg	B
Holloman Table 2	SW8240	S	0.01220	0.012200	DET	0.00151	mg/kg	B
Holloman Table 2	SW8240	S	0.00868	0.008680	DET	0.02880	mg/kg	BJ
Walk Hydell	SW8240	S	.	0.001610	ND	0.00533	mg/kg	
Walk Hydell	SW8240	S	.	0.008646	ND	0.00556	mg/kg	
Walk Hydell	SW8240	S	.	0.006808	ND	0.00517	mg/kg	
Walk Hydell	SW8240	S	.	0.004735	ND	0.00551	mg/kg	

N = 8

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Benzo(a)anthracene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	83.7	83.7000	DET	107.00	ug/kg	FJ
Walk Hydell	SW8270	S	.	65.3047	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	35.7446	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	67.2024	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	23.8645	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	2.2192	ND	726.07	ug/kg	

N = 6

-------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Chrysene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	83.7	83.7	DET	142	ug/kg	FJ

-------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Chrysene ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW8270	S	.	81.7252	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	36.2212	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	32.7160	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	37.6788	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	72.0701	ND	726.07	ug/kg	

N = 6

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Hydrocarbons -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	338.00	338.00	DET	28.2	mg/kg	B
Holloman Table 2	E418.1	S	1810.00	1810.00	DET	27.1	mg/kg	
Holloman Table 2	E418.1	S	10300.00	10300.00	DET	147.0	mg/kg	
Holloman Table 2	E418.1	S	9.70	9.70	DET	30.0	mg/kg	BJ
Holloman Table 2	E418.1	S	183.00	183.00	DET	29.6	mg/kg	B
Walk Hydell	E418.1	S	53.91	53.91	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	.	5.71	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	104.73	104.73	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	130.61	130.61	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	49.45	49.45	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	.	1.69	ND	15.0	mg/kg	

N = 11

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Methylene Chloride ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00233	.0023300	DET	.00245	mg/kg	J
Holloman Table 2	SW8240	S	.00230	.0023000	DET	.00236	mg/kg	J
Holloman Table 2	SW8240	S	.00382	.0038200	DET	.00262	mg/kg	
Holloman Table 2	SW8240	S	.00186	.0018600	DET	.00162	mg/kg	
Walk Hydell	SW8240	S	.	.0003189	ND	.00533	mg/kg	
Walk Hydell	SW8240	S	.	.0017895	ND	.00556	mg/kg	
Walk Hydell	SW8240	S	.	.0002884	ND	.00517	mg/kg	
Walk Hydell	SW8240	S	.	.0005064	ND	.00551	mg/kg	

N = 8

------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Naphthalene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	93.1	93.1000	DET	123.00	ug/kg	J
Walk Hydell	SW8270	S	.	4.3411	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	54.4380	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	0.6161	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	68.8920	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	87.9758	ND	726.07	ug/kg	

N = 6

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Phenanthrene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	69.5	69.5000	DET	159.00	ug/kg	J
Walk Hydell	SW8270	S	.	3.6404	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	48.8389	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	16.9327	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	4.5349	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	41.8942	ND	726.07	ug/kg	

N = 6

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	43.8	43.8000	DET	86.90	ug/kg	J
Walk Hydell	SW8270	S	.	7.8841	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	22.0633	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	16.3294	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	17.9619	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	34.3578	ND	726.07	ug/kg	

N = 6

SWMUs Group=54/55/21/22/123 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	541	541.000	DET	290.00	ug/kg	
Walk Hydell	SW8270	S	.	256.252	ND	704.38	ug/kg	
Walk Hydell	SW8270	S	.	264.110	ND	10.00	ug/kg	

SWMUs Group=54/55/21/22/123 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW8270	S	.	107.609	ND	734.15	ug/kg	
Walk Hydell	SW8270	S	.	341.063	ND	682.52	ug/kg	
Walk Hydell	SW8270	S	.	355.663	ND	726.07	ug/kg	

N = 6

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	5.72	5.72	DET	0.342	mg/kg	
Holloman Table 2	SW7060	S	3.66	3.66	DET	0.271	mg/kg	

N = 2

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	306	306	DET	0.0574	mg/kg	B
Holloman Table 2	SW6010	S	134	134	DET	0.0501	mg/kg	B

N = 2

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	27.90	27.90	DET	0.285	mg/kg	B
Holloman Table 2	SW6010	S	4.07	4.07	DET	0.248	mg/kg	B

N = 2

--------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	93.6	93.6	DET	0.271	mg/kg	B
Holloman Table 2	SW6010	S	15.0	15.0	DET	0.236	mg/kg	B

N = 2

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	327	327	DET	8.66	mg/kg	S
Holloman Table 2	SW7421	S	34	34	DET	1.37	mg/kg	S

N = 2

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.7790	0.7790	DET	0.0171	mg/kg	
Holloman Table 2	SW7471	S	-0.0432	-0.0432	DET	0.0148	mg/kg	J

N = 2

--------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	3.31	3.31	DET	0.306	mg/kg	B
Holloman Table 2	SW7740	S	2.42	2.42	DET	0.243	mg/kg	B

N = 2

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.2400	-0.2400	DET	0.182	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0727	-0.0727	DET	0.158	mg/kg	BJ

N = 2

---------- SWMUs Group=040/128/138 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	5.24347	ND	0.021	mg/kg	X
Holloman Table 2	SW8240	S	9.21	9.21D00	DET	0.718	mg/kg	

N = 2

---- SWMUs Group=040/128/138 Method=Organics Analyte=Benzo(g,h,i)perylene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	656	656.000	DET	939.0	ug/kg	J
Holloman Table 2	SW8270	S	.	253.985	ND	27.7	ug/kg	

N = 2

-------- ,s Group=040/128/138 Method=Organics Analyte=Fluoranthene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	7.04457	ND	870.0	ug/kg	
Holloman Table 2	SW8270	S	7.82	7.82000	DET	25.7	ug/kg	J

N = 2

-------- SWMUs Group=040/128/138 Method=Organics Analyte=Hydrocarbons ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	13400	13400	DET	714.0	mg/kg	B
Holloman Table 2	E418.1	S	298	298	DET	30.7	mg/kg	B

N = 2

--- SWMUs Group=040/128/138 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	338	338.000	DET	736.0	ug/kg	J
Holloman Table 2	SW8270	S	.	103.800	ND	21.7	ug/kg	

N = 2

----- SWMUs Group=040/128/138 Method=Organics Analyte=Methylene Chloride ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.002580	.002580	DET	.00298	mg/kg	BXJ
Holloman Table 2	SW8240	S	.000691	.000691	DET	.00255	mg/kg	BJ

N = 2

---------- SWMUs Group=040/128/138 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	5.3523	ND	619.0	ug/kg	
Holloman Table 2	SW8270	S	10.6	10.6000	DET	18.3	ug/kg	J

N = 2

- SWMUs Group=040/128/138 Method=Organics Analyte=bis(2-Ethylhex, .chalate --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	3410	3410	DET	2070	ug/kg	
Holloman Table 2	SW8270	S	507	507	DET	61	ug/kg	

N = 2

--------- SWMUs Group=124 Method=Organics Analyte=Benzo(a)anthracene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	20.9	20.9	DET	67.3	ug/kg	J

N = 1

---------- SWMUs Group=124 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	20.4	20.4	DET	89	ug/kg	J

N = 1

---------- SWMUs Group=124 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	840	840	DET	30.9	mg/kg	B

N = 1

--------- SWMUs Group=124 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000963	.000963	DET	.00261	mg/kg	BJ

N = 1

---------- SWMUs Group=124 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000735	.000735	DET	.00248	mg/kg	J

N = 1

---------- SWMUs Group=124 Method=Organics Analyte=Trichloroethene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00532	.00532	DET	.00399	mg/kg	

N = 1

----- SWMUs Group=124 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	970	970	DET	182	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	2.190	2.190	DET	0.276	mg/kg	S
Holloman Table 2	SW7060	S	0.825	0.825	DET	0.318	mg/kg	S

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	120.0	120.0	DET	0.0554	mg/kg	
Holloman Table 2	SW6010	S	43.6	43.6	DET	0.0506	mg/kg	

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.5270	0.5270	DET	0.275	mg/kg	B
Holloman Table 2	SW6010	S	0.0691	0.0691	DET	0.251	mg/kg	BJ

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	16.10	16.10	DET	0.261	mg/kg	B
Holloman Table 2	SW6010	S	4.15	4.15	DET	0.239	mg/kg	B

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	17.60	17.60	DET	0.9620	mg/kg	S
Holloman Table 2	SW7421	S	1.64	1.64	DET	0.0804	mg/kg	SB

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	.00562	.00562	DET	0.0135	mg/kg	J
Holloman Table 2	SW7471	S	.00000	.00000	DET	0.0152	mg/kg	J

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.48	1.48	DET	0.247	mg/kg	S
Holloman Table 2	SW7740	S	1.32	1.32	DET	0.284	mg/kg	SB

N = 2

---------- SWMUs Group=136 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.692	-0.692	DET	0.175	mg/kg	J
Holloman Table 2	SW6010	S	-0.110	-0.110	DET	0.160	mg/kg	BJ

N = 2

-------- SWMUs Group=136 Method=Organics Analyte=1,1,1-Trichloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00475	.0047500	DET	.00233	mg/kg	
Holloman Table 2	SW8240	S	.	.0043897	ND	.00283	mg/kg	

N = 2

---------- SWMUs Group=136 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.8940	0.8940	DET	0.0812	mg/kg	B
Holloman Table 2	SW8240	S	0.0129	0.0129	DET	0.0312	mg/kg	BJ

N = 2

---------- SWMUs Group=136 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00041	.00041000	DET	.00107	mg/kg	J
Holloman Table 2	SW8240	S	.	.00036849	ND	.00202	mg/kg	

N = 2

---------- SWMUs Group=136 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	445	445	DET	28.0	mg/kg	
Holloman Table 2	E418.1	S	329	329	DET	31.7	mg/kg	B

N = 2

--------- SWMUs Group=136 Method=Organics Analyte=Methylene Chloride ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0017479	ND	.00231	mg/kg	
Holloman Table 2	SW8240	S	.00357	.0035700	DET	.00175	mg/kg	

N = 2

---------- SWMUs Group=136 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00107	.0010700	DET	.00220	mg/kg	J
Holloman Table 2	SW8240	S	.	.0006082	ND	.00189	mg/kg	

N = 2

---------- SWMUs Group=136 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.0014	.0014000	DET	.00496	mg/kg	J
Holloman Table 2	SW8240	S	.	.0000886	ND	.00409	mg/kg	

N = 2

---------- SWMUs Group=155 Method=Inorganics Analyte=Antimony ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-11.70	-11.70	DET	1.61	mg/kg	J
Holloman Table 2	SW6010	S	-10.60	-10.60	DET	1.71	mg/kg	J
Holloman Table 2	SW6010	S	-8.76	-8.76	DET	1.79	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.65	1.65	DET	0.633	mg/kg	
Holloman Table 2	SW7060	S	3.76	3.76	DET	0.787	mg/kg	
Holloman Table 2	SW7060	S	2.70	2.70	DET	0.752	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	50.5	50.5	DET	0.0484	mg/kg	B
Holloman Table 2	SW6010	S	40.6	40.6	DET	0.0514	mg/kg	B
Holloman Table 2	SW6010	S	63.0	63.0	DET	0.0536	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Beryllium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.205	0.205	DET	0.0493	mg/kg	
Holloman Table 2	SW6010	S	0.126	0.126	DET	0.0523	mg/kg	
Holloman Table 2	SW6010	S	0.164	0.164	DET	0.0545	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.130	-0.130	DET	0.240	mg/kg	J
Holloman Table 2	SW6010	S	-0.142	-0.142	DET	0.255	mg/kg	J
Holloman Table 2	SW6010	S	0.163	0.163	DET	0.266	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	5.46	5.46	DET	0.228	mg/kg	B
Holloman Table 2	SW6010	S	4.82	4.82	DET	0.242	mg/kg	B
Holloman Table 2	SW6010	S	6.10	6.10	DET	0.253	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Cobalt ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	1.00	1.00	DET	0.437	mg/kg	
Holloman Table 2	SW6010	S	1.38	1.38	DET	0.463	mg/kg	
Holloman Table 2	SW6010	S	1.23	1.23	DET	0.483	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Copper ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	1.72	1.72	DET	0.207	mg/kg	B
Holloman Table 2	SW6010	S	1.46	1.46	DET	0.219	mg/kg	B
Holloman Table 2	SW6010	S	4.58	4.58	DET	0.229	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Cyanide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW9012	S	0.1080	0.1080	DET	0.339	mg/kg	BJ
Holloman Table 2	SW9012	S	0.0751	0.0751	DET	0.313	mg/kg	BJ
Holloman Table 2	SW9012	S	0.0659	0.0659	DET	0.314	mg/kg	BJ

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	1.76	1.76	DET	0.305	mg/kg	B
Holloman Table 2	SW7421	S	9.76	9.76	DET	0.321	mg/kg	B
Holloman Table 2	SW7421	S	2.70	2.70	DET	0.313	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.02700	-0.02700	DET	0.0162	mg/kg	J
Holloman Table 2	SW7471	S	0.00694	0.00694	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	-0.01370	-0.01370	DET	0.0164	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.86	1.86	DET	0.226	mg/kg	
Holloman Table 2	SW7740	S	2.61	2.61	DET	0.281	mg/kg	
Holloman Table 2	SW7740	S	2.61	2.61	DET	0.269	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.7490	-0.7490	DET	0.153	mg/kg	J
Holloman Table 2	SW6010	S	-0.0222	-0.0222	DET	0.162	mg/kg	J
Holloman Table 2	SW6010	S	1.9800	1.9800	DET	0.169	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Sulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW9030	S	-13.9	-13.9	DET	33.8	mg/kg	J
Holloman Table 2	SW9030	S	31.4	31.4	DET	34.5	mg/kg	J
Holloman Table 2	SW9030	S	-14.1	-14.1	DET	34.0	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Vanadium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	16.8	16.8	DET	0.360	mg/kg	
Holloman Table 2	SW6010	S	13.4	13.4	DET	0.382	mg/kg	
Holloman Table 2	SW6010	S	14.8	14.8	DET	0.398	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	8.95	8.95	DET	0.243	mg/kg	
Holloman Table 2	SW6010	S	6.26	6.26	DET	0.258	mg/kg	
Holloman Table 2	SW6010	S	8.82	8.82	DET	0.269	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=2,4,5-T ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.00540	.00540	DET	0.0172	mg/kg	PJ
Holloman Table 2	SW8150	S	.00643	.00643	DET	0.0178	mg/kg	PJ
Holloman Table 2	SW8150	S	.00617	.00617	DET	0.0175	mg/kg	PJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=4,4'-DDD ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.0004286	ND	0.02160	mg/kg	
Holloman Table 2	SW8080	S	.	.0004421	ND	0.00221	mg/kg	
Holloman Table 2	SW8080	S	.00143	.0014300	DET	0.00218	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=4,4'-DDE ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.00023183	ND
Holloman Table 2	SW8080	S	.	.00061269	NO
Holloman Table 2	SW8080	S	.000877	.00087700	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.004320	mg/kg	
Holloman Table 2	SW8080	.000441	mg/kg	
Holloman Table 2	SW8080	.000436	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=4,4'-DDT ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.0002928	ND	.006210	mg/kg	
Holloman Table 2	SW8080	S	.	.0004631	ND	.000634	mg/kg	
Holloman Table 2	SW8080	S	.00151	.0015100	DET	.000627	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0156	0.0156	DET	0.03310	mg/kg	J
Holloman Table 2	SW8240	S	0.0186	0.0186	DET	0.00175	mg/kg	B
Holloman Table 2	SW8240	S	0.0224	0.0224	DET	0.00173	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0030161	ND	.00541	mg/kg	
Holloman Table 2	SW8240	S	.00469	.0046900	DET	.00302	mg/kg	
Holloman Table 2	SW8240	S	.00441	.0044100	DET	.00299	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Chloromethane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.00002302	ND	.00292	mg/kg	
Holloman Table 2	SW8240	S	.000593	.00059300	DET	.00284	mg/kg	J
Holloman Table 2	SW8240	S	.	.00052899	ND	.00281	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Diazinon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0009355	ND	0.0128	mg/kg	
Holloman Table 2	SW8140	S	.00212	.0021200	DET	0.0133	mg/kg	J
Holloman Table 2	SW8140	S	.00134	.0013400	DET	0.0129	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Dichloroprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	0.0292	0.0292	DET	0.0468	mg/kg	PJ
Holloman Table 2	SW8150	S	0.0224	0.0224	DET	0.0485	mg/kg	PJ
Holloman Table 2	SW8150	S	0.0197	0.0197	DET	0.0475	mg/kg	PJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Dieldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.00031644	ND
Holloman Table 2	SW8080	S	.	.00020061	ND
Holloman Table 2	SW8080	S	.000888	.00088800	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.004320	mg/kg	
Holloman Table 2	SW8080	.000524	mg/kg	
Holloman Table 2	SW8080	.000518	mg/kg	

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=Endosulfan II ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.000018009	ND
Holloman Table 2	SW8080	S	.	.000012629	ND
Holloman Table 2	SW8080	S	.0000252	.000025200	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	0.016200	mg/kg	
Holloman Table 2	SW8080	0.001660	mg/kg	
Holloman Table 2	SW8080	0.000409	mg/kg	KJ

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=Endosulfan Sulfate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc
Holloman Table 2	SW8080	S	.	.000066004
Holloman Table 2	SW8080	S	.	.000005193
Holloman Table 2	SW8080	S	.0000905	.000090500

Data Source	Analytical Method	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	ND	0.01170	mg/kg	
Holloman Table 2	SW8080	ND	0.00129	mg/kg	
Holloman Table 2	SW8080	DET	0.00118	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Endrin Aldehyde ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.00017388	ND
Holloman Table 2	SW8080	S	.	.00021535	ND
Holloman Table 2	SW8080	S	.000235	.00023500	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.009890	mg/kg	
Holloman Table 2	SW8080	.001010	mg/kg	
Holloman Table 2	SW8080	.000999	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Ethoprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0006696	ND	0.01020	mg/kg	
Holloman Table 2	SW8140	S	.00819	.0081900	DET	0.00878	mg/kg	KJ
Holloman Table 2	SW8140	S	.00363	.0036300	DET	0.00852	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Fensulfothion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00493	.00493	DET	0.0144	mg/kg	PJ
Holloman Table 2	SW8140	S	.00430	.00430	DET	0.0136	mg/kg	KJ
Holloman Table 2	SW8140	S	.00323	.00323	DET	0.0132	mg/kg	KJ

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=Heptachlor epoxide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.0000537	ND
Holloman Table 2	SW8080	S	.0036400	.0036400	DET
Holloman Table 2	SW8080	S	.0000613	.0000613	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.002970	mg/kg	
Holloman Table 2	SW8080	.000303	mg/kg	P
Holloman Table 2	SW8080	.000300	mg/kg	PJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=MCPA ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	5.1	5.10000	DET	8.57	mg/kg	KJ
Holloman Table 2	SW8150	S	.	4.53721	ND	8.87	mg/kg	
Holloman Table 2	SW8150	S	.	3.97845	ND	8.69	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Methyl azinphos ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.0021	.0021000	DET	0.0120	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0004504	ND	0.0124	mg/kg	
Holloman Table 2	SW8140	S	.	.0008940	ND	0.0121	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Methyl ethyl ketone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00707	.0070700	DET	.00440	mg/kg	
Holloman Table 2	SW8240	S	.	.0038598	ND	.00178	mg/kg	
Holloman Table 2	SW8240	S	.	.0056166	ND	.00176	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Methyl parathion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	0.03616	ND	0.0111	mg/kg	
Holloman Table 2	SW8140	S	0.1120	0.11200	DET	0.2300	mg/kg	KJ
Holloman Table 2	SW8140	S	0.0719	0.07190	DET	0.2230	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Naled ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0034960	ND	0.5630	mg/kg	
Holloman Table 2	SW8140	S	.	.0075667	ND	0.0117	mg/kg	
Holloman Table 2	SW8140	S	.00951	.0095100	DET	0.0151	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Phorate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0009736	ND	0.0254	mg/kg	
Holloman Table 2	SW8140	S	.00101	.0010100	DET	0.0229	mg/kg	KJ
Holloman Table 2	SW8140	S	.00103	.0010300	DET	0.0222	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Tetrachlorvinphos ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00137	.0013700	DET	0.0115	mg/kg	KJ
Holloman Table 2	SW8140	S	.00101	.0010100	DET	0.0119	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0009068	ND	0.0116	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Thallium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7841	S	0.0481	0.0481	DET	0.186	mg/kg	BJ
Holloman Table 2	SW7841	S	0.1990	0.1990	DET	0.231	mg/kg	BJ
Holloman Table 2	SW7841	S	0.1710	0.1710	DET	0.221	mg/kg	BJ

N = 3

-------- SWMUs Group=155 Method=Organics Analyte=gamma-Chlordane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.00010242	ND
Holloman Table 2	SW8080	S	.	.00003617	ND
Holloman Table 2	SW8080	S	.000195	.00019500	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.003240	mg/kg	
Holloman Table 2	SW8080	.000248	mg/kg	
Holloman Table 2	SW8080	.000245	mg/kg	PJ

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.156	0.156	DET	0.262	mg/kg	J
Holloman Table 2	SW7060	S	-3.010	-3.010	DET	0.256	mg/kg	J
Holloman Table 2	SW7060	S	-0.326	-0.326	DET	0.274	mg/kg	J

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	47.6	47.6	DET	0.0463	mg/kg	
Holloman Table 2	SW6010	S	45.0	45.0	DET	0.0496	mg/kg	
Holloman Table 2	SW6010	S	47.7	47.7	DET	0.0443	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0104	0.0104	DET	0.229	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2670	0.2670	DET	0.246	mg/kg	B
Holloman Table 2	SW6010	S	0.2670	0.2670	DET	0.220	mg/kg	B

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	13.80	13.80	DET	0.218	mg/kg	B
Holloman Table 2	SW6010	S	9.64	9.64	DET	0.234	mg/kg	B
Holloman Table 2	SW6010	S	10.40	10.40	DET	0.209	mg/kg	B

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	4.15	4.15	DET	0.183	mg/kg	SB
Holloman Table 2	SW7421	S	5.18	5.18	DET	0.178	mg/kg	SB
Holloman Table 2	SW7421	S	8.16	8.16	DET	0.191	mg/kg	SB

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.00949	-0.00949	DET	0.0152	mg/kg	J
Holloman Table 2	SW7471	S	0.01790	0.01790	DET	0.0143	mg/kg	
Holloman Table 2	SW7471	S	0.00547	0.00547	DET	0.0131	mg/kg	J

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	0.402	0.402	DET	0.235	mg/kg	S
Holloman Table 2	SW7740	S	1.040	1.040	DET	0.229	mg/kg	S
Holloman Table 2	SW7740	S	3.540	3.540	DET	0.245	mg/kg	S

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.492	-0.492	DET	0.146	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.534	-0.534	DET	0.157	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.500	-0.500	DET	0.140	mg/kg	BJ

N = 3

-------- SWMUs Group=56 Method=Organics Analyte=1,1,1-Trichloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.014386	ND	.00265	mg/kg	
Holloman Table 2	SW8240	S	0.0146	0.014600	DET	.00250	mg/kg	
Holloman Table 2	SW8240	S	.	0.007180	ND	.00228	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0759	0.0759	DET	0.0186	mg/kg	B
Holloman Table 2	SW8240	S	0.0194	0.0194	DET	0.0175	mg/kg	B
Holloman Table 2	SW8240	S	0.0691	0.0691	DET	0.0160	mg/kg	B

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0032291	ND	.00336	mg/kg	
Holloman Table 2	SW8240	S	.	.0015396	ND	.00317	mg/kg	
Holloman Table 2	SW8240	S	.00399	.0039900	DET	.00289	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0007557	ND	.00122	mg/kg	
Holloman Table 2	SW8240	S	.00215	.0021500	DET	.00115	mg/kg	
Holloman Table 2	SW8240	S	.00218	.0021800	DET	.00105	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	106	106	DET	31.6	mg/kg	
Holloman Table 2	E418.1	S	464	464	DET	29.8	mg/kg	
Holloman Table 2	E418.1	S	333	333	DET	27.3	mg/kg	

N = 3

--------- SWMUs Group=56 Method=Organics Analyte=Methyl ethyl ketone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0012008	ND	.00894	mg/kg	
Holloman Table 2	SW8240	S	.	.0002602	ND	.00843	mg/kg	
Holloman Table 2	SW8240	S	.00372	.0037200	DET	.00768	mg/kg	J

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.01250	0.01250	DET	.00264	mg/kg	
Holloman Table 2	SW8240	S	0.00907	0.00907	DET	.00249	mg/kg	
Holloman Table 2	SW8240	S	0.00125	0.00125	DET	.00227	mg/kg	BJ

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000505	.0005050	DET	.00251	mg/kg	J
Holloman Table 2	SW8240	S	.001060	.0010600	DET	.00237	mg/kg	J
Holloman Table 2	SW8240	S	.	.0003716	ND	.00216	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0009268	ND	.00565	mg/kg	
Holloman Table 2	SW8240	S	.00217	.0021700	DET	.00533	mg/kg	J
Holloman Table 2	SW8240	S	.00466	.0046600	DET	.00485	mg/kg	J

N = 3

---------- SWMUs Group=63 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	4.09	4.09	DET	0.347	mg/kg	
Holloman Table 2	SW7060	S	3.94	3.94	DET	0.319	mg/kg	
Holloman Table 2	SW7060	S	3.80	3.80	DET	0.382	mg/kg	
Holloman Table 2	SW7060	S	3.23	3.23	DET	0.335	mg/kg	
Holloman Table 2	SW7060	S	2.98	2.98	DET	0.362	mg/kg	

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	27.9	27.9	DET	0.0584	mg/kg	B
Holloman Table 2	SW6010	S	35.9	35.9	DET	0.0538	mg/kg	B
Holloman Table 2	SW6010	S	22.4	22.4	DET	0.0526	mg/kg	B
Holloman Table 2	SW6010	S	24.8	24.8	DET	0.0593	mg/kg	B
Holloman Table 2	SW6010	S	41.7	41.7	DET	0.0553	mg/kg	B

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.340	0.340	DET	0.289	mg/kg	B
Holloman Table 2	SW6010	S	0.187	0.187	DET	0.267	mg/kg	BJ
Holloman Table 2	SW6010	S	0.106	0.106	DET	0.261	mg/kg	BJ
Holloman Table 2	SW6010	S	0.134	0.134	DET	0.294	mg/kg	BJ
Holloman Table 2	SW6010	S	0.164	0.164	DET	0.274	mg/kg	BJ

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	7.10	7.10	DET	0.275	mg/kg	B
Holloman Table 2	SW6010	S	5.71	5.71	DET	0.254	mg/kg	B
Holloman Table 2	SW6010	S	3.78	3.78	DET	0.248	mg/kg	B
Holloman Table 2	SW6010	S	3.23	3.23	DET	0.280	mg/kg	B
Holloman Table 2	SW6010	S	5.04	5.04	DET	0.261	mg/kg	B

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	13.50	13.50	DET	0.409	mg/kg	S
Holloman Table 2	SW7421	S	16.70	16.70	DET	0.941	mg/kg	S
Holloman Table 2	SW7421	S	3.14	3.14	DET	0.112	mg/kg	S
Holloman Table 2	SW7421	S	6.28	6.28	DET	0.198	mg/kg	S
Holloman Table 2	SW7421	S	2.49	2.49	DET	0.107	mg/kg	S

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.00974	0.00974	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.00649	-0.00649	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.01300	-0.01300	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.03120	-0.03120	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	-0.00962	-0.00962	DET	0.0154	mg/kg	J

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.92	1.92	DET	0.262	mg/kg	S
Holloman Table 2	SW7740	S	2.05	2.05	DET	0.242	mg/kg	S
Holloman Table 2	SW7740	S	2.44	2.44	DET	0.289	mg/kg	S
Holloman Table 2	SW7740	S	2.11	2.11	DET	0.254	mg/kg	S
Holloman Table 2	SW7740	S	1.86	1.86	DET	0.274	mg/kg	S

N = 5

---------- SWMUs Group=63 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.774	-0.774	DET	0.184	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.030	-1.030	DET	0.170	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.260	-1.260	DET	0.166	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.100	-0.100	DET	0.187	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.898	-0.898	DET	0.175	mg/kg	BJ

N = 5

---------- SWMUs Group=63 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.2010	0.2010	DET	0.0319	mg/kg	B
Holloman Table 2	SW8240	S	0.1940	0.1940	DET	0.0319	mg/kg	B
Holloman Table 2	SW8240	S	0.5690	0.5690	DET	0.1450	mg/kg	B
Holloman Table 2	SW8240	S	0.1590	0.1590	DET	0.0339	mg/kg	B
Holloman Table 2	SW8240	S	0.0977	0.0977	DET	0.0314	mg/kg	B

N = 5

---------- SWMUs Group=63 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	6.2315	ND	43.2	ug/kg	
Holloman Table 2	SW8270	S	33.4	33.4000	DET	43.3	ug/kg	J
Holloman Table 2	SW8270	S	.	1.7087	ND	43.1	ug/kg	
Holloman Table 2	SW8270	S	.	11.2181	ND	46.2	ug/kg	
Holloman Table 2	SW8270	S	17.7	17.7000	DET	42.8	ug/kg	J

N = 5

---------- SWMUs Group=63 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	25.5850	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	26	26.0000	DET	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	4.0035	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	25.6264	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	17.1631	NO	25.5	ug/kg	

N = 5

---------- SWMUs Group=63 Method=Organics Analyte=Isopropanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	1.90	1.90000	DET	3.49	mg/kg	J
Holloman Table 2	SW8015	S	.	1.13254	ND	3.49	mg/kg	
Holloman Table 2	SW8015	S	2.96	2.96000	DET	3.48	mg/kg	J
Holloman Table 2	SW8015	S	2.19	2.19000	DET	3.89	mg/kg	J
Holloman Table 2	SW8015	S	.	1.22996	ND	3.43	mg/kg	

N = 5

---------- SWMUs Group=63 Method=Organics Analyte=Methanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	.	9.2529	ND	3.69	mg/kg	
Holloman Table 2	SW8015	S	.	8.4380	ND	3.69	mg/kg	
Holloman Table 2	SW8015	S	10.3	10.3000	DET	3.69	mg/kg	
Holloman Table 2	SW8015	S	.	0.5016	ND	4.12	mg/kg	
Holloman Table 2	SW8015	S	.	0.8982	ND	3.63	mg/kg	

N = 5

---------- SWMUs Group=63 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00405	.0040500	DET	.00179	mg/kg	
Holloman Table 2	SW8240	S	.00334	.0033400	DET	.00179	mg/kg	
Holloman Table 2	SW8240	S	.	.0025608	ND	.00178	mg/kg	
Holloman Table 2	SW8240	S	.00397	.0039700	DET	.00190	mg/kg	
Holloman Table 2	SW8240	S	.00268	.0026800	DET	.00176	mg/kg	

N = 5

--- SWMUs Group=63 Method=Organics Analyte=Pyrene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	7.9678	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	31.3	31.3000	DET	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	3.9915	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	16.7392	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	6.6421	ND	30.6	ug/kg	

N = 5

--- SWMUs Group=63 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	20.6030	ND	116	ug/kg	
Holloman Table 2	SW8270	S	.	18.2421	ND	116	ug/kg	
Holloman Table 2	SW8270	S	.	8.9015	ND	115	ug/kg	
Holloman Table 2	SW8270	S	.	18.8464	ND	124	ug/kg	
Holloman Table 2	SW8270	S	28	28.0000	DET	115	ug/kg	J

N = 5

--- SWMUs Group=71 Method=Inorganics Analyte=Arsenic ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	10.4000	10.4000	DET	0.310	mg/kg	S
Holloman Table 2	SW7060	S	1.7300	1.7300	DET	0.325	mg/kg	S
Holloman Table 2	SW7060	S	0.0012	0.0012	DET	0.307	mg/kg	SJ
Holloman Table 2	SW7060	S	3.6800	3.6800	DET	0.303	mg/kg	S
Holloman Table 2	SW7060	S	9.5300	9.5300	DET	0.314	mg/kg	S

N = 5

--- SWMUs Group=71 Method=Inorganics Analyte=Barium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	29.9	29.9	DET	0.0412	mg/kg	
Holloman Table 2	SW6010	S	24.9	24.9	DET	0.0605	mg/kg	
Holloman Table 2	SW6010	S	34.2	34.2	DET	0.0543	mg/kg	
Holloman Table 2	SW6010	S	32.6	32.6	DET	0.0543	mg/kg	
Holloman Table 2	SW6010	S	43.6	43.6	DET	0.0566	mg/kg	

N = 5

--- SWMUs Group=71 Method=Inorganics Analyte=Cadmium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.07900	0.07900	DET	0.204	mg/kg	BJ
Holloman Table 2	SW6010	S	0.14700	0.14700	DET	0.300	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.07500	-0.07500	DET	0.269	mg/kg	BJ
Holloman Table 2	SW6010	S	0.17700	0.17700	DET	0.269	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.00685	-0.00685	DET	0.281	mg/kg	BJ

N = 5

--- SWMUs Group=71 Method=Inorganics Analyte=Chromium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	3.57	3.57	DET	0.194	mg/kg	B
Holloman Table 2	SW6010	S	3.25	3.25	DET	0.285	mg/kg	B
Holloman Table 2	SW6010	S	3.42	3.42	DET	0.256	mg/kg	B
Holloman Table 2	SW6010	S	3.50	3.50	DET	0.256	mg/kg	B
Holloman Table 2	SW6010	S	4.97	4.97	DET	0.267	mg/kg	B

N = 5

--- SWMUs Group=71 Method=Inorganics Analyte=Lead ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	30.700	30.700	DET	1.9500	mg/kg	SB
Holloman Table 2	SW7421	S	30.800	30.800	DET	2.3000	mg/kg	SB
Holloman Table 2	SW7421	S	0.931	0.931	DET	0.0779	mg/kg	SB
Holloman Table 2	SW7421	S	32.400	32.400	DET	1.8400	mg/kg	SB
Holloman Table 2	SW7421	S	42.400	42.400	DET	1.9100	mg/kg	SB

N = 5

--- SWMUs Group=71 Method=Inorganics Analyte=Mercury ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.00329	-0.00329	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.01390	-0.01390	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	0.00333	0.00333	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.01320	-0.01320	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.00329	-0.00329	DET	0.0158	mg/kg	J

N = 5

---------- SWMUs Group=71 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	3.75	3.75	DET	0.277	mg/kg	S
Holloman Table 2	SW7740	S	3.40	3.40	DET	0.293	mg/kg	S
Holloman Table 2	SW7740	S	3.06	3.06	DET	0.274	mg/kg	SB
Holloman Table 2	SW7740	S	2.72	2.72	DET	0.271	mg/kg	SB
Holloman Table 2	SW7740	S	3.21	3.21	DET	0.280	mg/kg	S

N = 5

---------- SWMUs Group=71 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.167	-0.167	DET	0.130	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.397	-0.397	DET	0.191	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.288	-0.288	DET	0.172	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.016	-0.016	DET	0.172	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.681	-0.681	DET	0.179	mg/kg	BJ

N = 5

---------- SWMUs Group=71 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.1240	0.1240	DET	0.0325	mg/kg	B
Holloman Table 2	SW8240	S	0.2760	0.2760	DET	0.0339	mg/kg	B
Holloman Table 2	SW8240	S	0.0134	0.0134	DET	0.0197	mg/kg	BJ
Holloman Table 2	SW8240	S	0.1960	0.1960	DET	0.0318	mg/kg	B
Holloman Table 2	SW8240	S	0.0433	0.0433	DET	0.0321	mg/kg	B

N = 5

---------- SWMUs Group=71 Method=Organics Analyte=Ethanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	1.73	1.73	DET	6.97	mg/kg	KJ
Holloman Table 2	SW8015	S	1.66	1.66	DET	7.45	mg/kg	KJ
Holloman Table 2	SW8015	S	2.12	2.12	DET	6.97	mg/kg	KJ
Holloman Table 2	SW8015	S	2.11	2.11	DET	6.83	mg/kg	KJ
Holloman Table 2	SW8015	S	1.70	1.70	DET	6.81	mg/kg	KJ

N = 5

---------- SWMUs Group=71 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-5.38	-5.38	DET	33.1	mg/kg	J
Holloman Table 2	E418.1	S	-9.29	-9.29	DET	34.7	mg/kg	J
Holloman Table 2	E418.1	S	-5.40	-5.40	DET	33.3	mg/kg	J
Holloman Table 2	E418.1	S	3.60	3.60	DET	32.9	mg/kg	BJ
Holloman Table 2	E418.1	S	-5.32	-5.32	DET	32.8	mg/kg	J

N = 5

---------- SWMUs Group=71 Method=Organics Analyte=Isopropanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	1.26	1.26000	DET	1.30	mg/kg	KJ
Holloman Table 2	SW8015	S	.	0.99904	ND	3.88	mg/kg	
Holloman Table 2	SW8015	S	.	0.49125	ND	3.63	mg/kg	
Holloman Table 2	SW8015	S	2.28	2.28000	DET	3.55	mg/kg	J
Holloman Table 2	SW8015	S	.	0.75177	ND	3.54	mg/kg	

N = 5

--------- SWMUs Group=71 Method=Organics Analyte=Methyl ethyl ketone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0037286	ND	.00431	mg/kg	
Holloman Table 2	SW8240	S	.	.0025429	ND	.00451	mg/kg	
Holloman Table 2	SW8240	S	.004	.0040000	DET	.00948	mg/kg	J
Holloman Table 2	SW8240	S	.	.0035909	ND	.00422	mg/kg	
Holloman Table 2	SW8240	S	.	.0002090	ND	.00427	mg/kg	

N = 5

---------- SWMUs Group=71 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00364	.00364	DET	.00182	mg/kg	
Holloman Table 2	SW8240	S	.00513	.00513	DET	.00190	mg/kg	
Holloman Table 2	SW8240	S	.00109	.00109	DET	.00280	mg/kg	BJ
Holloman Table 2	SW8240	S	.00307	.00307	DET	.00178	mg/kg	
Holloman Table 2	SW8240	S	.00465	.00465	DET	.00180	mg/kg	

N = 5

--------- - SWMUs Group=78 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	3.65	3.65	DET	0.286	mg/kg	
Holloman Table 2	SW7060	S	4.16	4.16	DET	0.334	mg/kg	
Holloman Table 2	SW7060	S	4.90	4.90	DET	0.394	mg/kg	
Holloman Table 2	SW7060	S	3.69	3.69	DET	0.319	mg/kg	

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	33.4	33.4	DET	0.0461	mg/kg	B
Holloman Table 2	SW6010	S	49.9	49.9	DET	0.0410	mg/kg	B
Holloman Table 2	SW6010	S	67.7	67.7	DET	0.0624	mg/kg	B
Holloman Table 2	SW6010	S	36.8	36.8	DET	0.0531	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0867	0.0867	DET	0.228	mg/kg	BJ
Holloman Table 2	SW6010	S	0.3350	0.3350	DET	0.203	mg/kg	B
Holloman Table 2	SW6010	S	0.2210	0.2210	DET	0.309	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2690	0.2690	DET	0.263	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	3.85	3.85	DET	0.217	mg/kg	B
Holloman Table 2	SW6010	S	9.34	9.34	DET	0.193	mg/kg	B
Holloman Table 2	SW6010	S	7.18	7.18	DET	0.294	mg/kg	B
Holloman Table 2	SW6010	S	7.69	7.69	DET	0.251	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	2.68	2.68	DET	0.0613	mg/kg	SB
Holloman Table 2	SW7421	S	10.40	10.40	DET	0.2870	mg/kg	SB
Holloman Table 2	SW7421	S	2.83	2.83	DET	0.0845	mg/kg	SB
Holloman Table 2	SW7421	S	6.94	6.94	DET	0.1880	mg/kg	SB

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.00333	-0.00333	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.00649	-0.00649	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.03040	-0.03040	DET	0.0162	mg/kg	J
Holloman Table 2	SW7471	S	-0.00641	-0.00641	DET	0.0154	mg/kg	J

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.210	1.210	DET	0.217	mg/kg	
Holloman Table 2	SW7740	S	2.400	2.400	DET	0.254	mg/kg	
Holloman Table 2	SW7740	S	-0.229	-0.229	DET	0.300	mg/kg	J
Holloman Table 2	SW7740	S	2.960	2.960	DET	0.240	mg/kg	

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.3240	-0.3240	DET	0.146	mg/kg	J
Holloman Table 2	SW6010	S	-0.4840	-0.4840	DET	0.130	mg/kg	J
Holloman Table 2	SW6010	S	-0.1100	-0.1100	DET	0.197	mg/kg	J
Holloman Table 2	SW6010	S	0.0211	0.0211	DET	0.168	mg/kg	BJ

N = 4

---------- SWMUs Group=78 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.07740	0.077400	DET	.00167	mg/kg	B
Holloman Table 2	SW8240	S	0.00612	0.006120	DET	.00164	mg/kg	B
Holloman Table 2	SW8240	S	0.01890	0.018900	DET	.00171	mg/kg	B
Holloman Table 2	SW8240	S	.	0.000533	ND	.00161	mg/kg	

N = 4

---------- SWMUs Group=78 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	28.7	28.7	DET	33.4	mg/kg	BJ
Holloman Table 2	E418.1	S	21.0	21.0	DET	32.6	mg/kg	BJ
Holloman Table 2	E418.1	S	32.8	32.8	DET	34.0	mg/kg	BJ
Holloman Table 2	E418.1	S	71.7	71.7	DET	31.9	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00338	.00338	DET	.00290	mg/kg	
Holloman Table 2	SW8240	S	.00405	.00405	DET	.00286	mg/kg	
Holloman Table 2	SW8240	S	.00434	.00434	DET	.00298	mg/kg	
Holloman Table 2	SW8240	S	.00429	.00429	DET	.00280	mg/kg	

N = 4

---------- SWMUs Group=91 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	5.16	5.16	DET	0.376	mg/kg	
Holloman Table 2	SW7060	S	4.12	4.12	DET	0.320	mg/kg	

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	101	101	DET	0.0525	mg/kg	B
Holloman Table 2	SW6010	S	89	89	DET	0.0496	mg/kg	B

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.428	0.428	DET	0.260	mg/kg	B
Holloman Table 2	SW6010	S	0.427	0.427	DET	0.246	mg/kg	B

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	12.6	12.6	DET	0.248	mg/kg	B
Holloman Table 2	SW6010	S	11.6	11.6	DET	0.234	mg/kg	B

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	8.01	8.01	DET	0.443	mg/kg	SB
Holloman Table 2	SW7421	S	6.45	6.45	DET	0.377	mg/kg	SB

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-.00641	-.00641	DET	0.0154	mg/kg	J
Holloman Table 2	SW7471	S	-.00602	-.00602	DET	0.0145	mg/kg	J

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	0.942	0.942	DET	0.284	mg/kg	S
Holloman Table 2	SW7740	S	0.319	0.319	DET	0.242	mg/kg	S

N = 2

---------- SWMUs Group=91 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-1.400	-1.400	DET	0.166	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.689	-0.689	DET	0.157	mg/kg	BJ

N = 2

---------- SWMUs Group=91 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0707	0.0707	DET	0.0186	mg/kg	B
Holloman Table 2	SW8240	S	0.0875	0.0875	DET	0.0176	mg/kg	B

N = 2

---------- SWMUs Group=91 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	10.30	10.30	DET	32	mg/kg	BJ
Holloman Table 2	E418.1	S	9.71	9.71	DET	30	mg/kg	BJ

N = 2

---------- SWMUs Group=91 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00349	.00349	DET	.00264	mg/kg	B
Holloman Table 2	SW8240	S	.00359	.00359	DET	.00250	mg/kg	B

N = 2

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	3.6700	3.6700	DET	0.323	mg/kg	
Holloman Table 2	SW7060	S	-0.5640	-0.5640	DET	0.376	mg/kg	J
Holloman Table 2	SW7060	S	-0.2580	-0.2580	DET	0.402	mg/kg	J
Holloman Table 2	SW7060	S	-1.0100	-1.0100	DET	0.376	mg/kg	J
Holloman Table 2	SW7060	S	0.1980	0.1980	DET	0.370	mg/kg	J
Holloman Table 2	SW7060	S	-0.9090	-0.9090	DET	0.326	mg/kg	J
Holloman Table 2	SW7060	S	1.7200	1.7200	DET	0.356	mg/kg	
Holloman Table 2	SW7060	S	-0.3310	-0.3310	DET	0.343	mg/kg	J
Holloman Table 2	SW7060	S	0.0925	0.0925	DET	0.252	mg/kg	SJ
Holloman Table 2	SW7060	S	1.2700	1.2700	DET	0.382	mg/kg	S
Holloman Table 2	SW7060	S	6.9900	6.9900	DET	0.363	mg/kg	
Holloman Table 2	SW7060	S	6.3900	6.3900	DET	0.306	mg/kg	
Holloman Table 2	SW7060	S	7.3600	7.3600	DET	0.280	mg/kg	
Holloman Table 2	SW7060	S	7.2400	7.2400	DET	0.373	mg/kg	
Holloman Table 2	SW7060	S	0.2300	0.2300	DET	0.267	mg/kg	SJ

N = 15

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	65.3	65.3	DET	0.0508	mg/kg	B
Holloman Table 2	SW6010	S	29.8	29.8	DET	0.0567	mg/kg	B
Holloman Table 2	SW6010	S	34.7	34.7	DET	0.0576	mg/kg	B
Holloman Table 2	SW6010	S	24.9	24.9	DET	0.0584	mg/kg	B
Holloman Table 2	SW6010	S	37.5	37.5	DET	0.0530	mg/kg	B
Holloman Table 2	SW6010	S	31.9	31.9	DET	0.0577	mg/kg	B
Holloman Table 2	SW6010	S	45.8	45.8	DET	0.0542	mg/kg	B
Holloman Table 2	SW6010	S	32.5	32.5	DET	0.0561	mg/kg	B
Holloman Table 2	SW6010	S	36.8	36.8	DET	0.0541	mg/kg	B
Holloman Table 2	SW6010	S	24.6	24.6	DET	0.0663	mg/kg	B
Holloman Table 2	SW6010	S	139.0	139.0	DET	0.0484	mg/kg	B
Holloman Table 2	SW6010	S	94.1	94.1	DET	0.0512	mg/kg	B
Holloman Table 2	SW6010	S	143.0	143.0	DET	0.0575	mg/kg	B
Holloman Table 2	SW6010	S	149.0	149.0	DET	0.0570	mg/kg	B
Holloman Table 2	SW6010	S	64.7	64.7	DET	0.0540	mg/kg	B

N = 15

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.39200	0.39200	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	-0.09110	-0.09110	DET	0.281	mg/kg	BJ
Holloman Table 2	SW6010	S	0.30400	0.30400	DET	0.286	mg/kg	B
Holloman Table 2	SW6010	S	0.12400	0.12400	DET	0.289	mg/kg	BJ
Holloman Table 2	SW6010	S	0.28600	0.28600	DET	0.263	mg/kg	B
Holloman Table 2	SW6010	S	-0.30700	-0.30700	DET	0.286	mg/kg	BJ
Holloman Table 2	SW6010	S	0.01970	0.01970	DET	0.269	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.02810	-0.02810	DET	0.278	mg/kg	BJ
Holloman Table 2	SW6010	S	0.12400	0.12400	DET	0.268	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.00458	-0.00458	DET	0.329	mg/kg	BJ
Holloman Table 2	SW6010	S	0.06600	0.06600	DET	0.240	mg/kg	BJ
Holloman Table 2	SW6010	S	0.26600	0.26600	DET	0.254	mg/kg	B
Holloman Table 2	SW6010	S	0.17200	0.17200	DET	0.285	mg/kg	BJ
Holloman Table 2	SW6010	S	0.09560	0.09560	DET	0.283	mg/kg	BJ
Holloman Table 2	SW6010	S	0.43100	0.43100	DET	0.267	mg/kg	B

N = 15

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	9.12	9.12	DET	0.239	mg/kg	B
Holloman Table 2	SW6010	S	5.19	5.19	DET	0.268	mg/kg	B
Holloman Table 2	SW6010	S	4.65	4.65	DET	0.272	mg/kg	B
Holloman Table 2	SW6010	S	4.62	4.62	DET	0.275	mg/kg	B
Holloman Table 2	SW6010	S	5.79	5.79	DET	0.250	mg/kg	B
Holloman Table 2	SW6010	S	3.48	3.48	DET	0.272	mg/kg	B
Holloman Table 2	SW6010	S	5.67	5.67	DET	0.256	mg/kg	B
Holloman Table 2	SW6010	S	3.83	3.83	DET	0.264	mg/kg	B
Holloman Table 2	SW6010	S	4.90	4.90	DET	0.255	mg/kg	B
Holloman Table 2	SW6010	S	4.04	4.04	DET	0.313	mg/kg	B
Holloman Table 2	SW6010	S	26.20	26.20	DET	0.228	mg/kg	B
Holloman Table 2	SW6010	S	16.80	16.80	DET	0.241	mg/kg	B
Holloman Table 2	SW6010	S	28.60	28.60	DET	0.271	mg/kg	B
Holloman Table 2	SW6010	S	28.50	28.50	DET	0.269	mg/kg	B
Holloman Table 2	SW6010	S	12.50	12.50	DET	0.254	mg/kg	B

N = 15

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	20.100	20.100	DET	0.9510	mg/kg	S
Holloman Table 2	SW7421	S	1.850	1.850	DET	0.1110	mg/kg	S
Holloman Table 2	SW7421	S	5.180	5.180	DET	0.2370	mg/kg	S
Holloman Table 2	SW7421	S	0.557	0.557	DET	0.1110	mg/kg	S
Holloman Table 2	SW7421	S	6.770	6.770	DET	0.2180	mg/kg	S
Holloman Table 2	SW7421	S	1.800	1.800	DET	0.0956	mg/kg	S
Holloman Table 2	SW7421	S	1.570	1.570	DET	0.1050	mg/kg	S
Holloman Table 2	SW7421	S	0.929	0.929	DET	0.1010	mg/kg	S
Holloman Table 2	SW7421	S	1.020	1.020	DET	0.0638	mg/kg	
Holloman Table 2	SW7421	S	-0.249	-0.249	DET	0.0968	mg/kg	J
Holloman Table 2	SW7421	S	16.300	16.300	DET	0.4270	mg/kg	S
Holloman Table 2	SW7421	S	13.500	13.500	DET	0.3600	mg/kg	S
Holloman Table 2	SW7421	S	17.300	17.300	DET	0.8260	mg/kg	S
Holloman Table 2	SW7421	S	15.700	15.700	DET	0.4400	mg/kg	S
Holloman Table 2	SW7421	S	6.990	6.990	DET	0.2710	mg/kg	

N = 15

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.0463	-0.0463	DET	0.0148	mg/kg	BJ
Holloman Table 2	SW7471	S	-0.0179	-0.0179	DET	0.0171	mg/kg	BJ
Holloman Table 2	SW7471	S	-0.0507	-0.0507	DET	0.0174	mg/kg	BJ
Holloman Table 2	SW7471	S	-0.0588	-0.0588	DET	0.0176	mg/kg	BJ
Holloman Table 2	SW7471	S	0.0250	0.0250	DET	0.0171	mg/kg	B
Holloman Table 2	SW7471	S	0.0273	0.0273	DET	0.0188	mg/kg	B
Holloman Table 2	SW7471	S	-0.0580	-0.0580	DET	0.0174	mg/kg	BJ
Holloman Table 2	SW7471	S	0.0437	0.0437	DET	0.0190	mg/kg	B
Holloman Table 2	SW7471	S	-0.0346	-0.0346	DET	0.0185	mg/kg	J
Holloman Table 2	SW7471	S	0.0424	0.0424	DET	0.0203	mg/kg	
Holloman Table 2	SW7471	S	-0.0139	-0.0139	DET	0.0167	mg/kg	BJ
Holloman Table 2	SW7471	S	-0.0217	-0.0217	DET	0.0174	mg/kg	BJ
Holloman Table 2	SW7471	S	-0.0101	-0.0101	DET	0.0162	mg/kg	BJ
Holloman Table 2	SW7471	S	-0.0590	-0.0590	DET	0.0167	mg/kg	BJ
Holloman Table 2	SW7471	S	0.0486	0.0486	DET	0.0167	mg/kg	

N = 15

--------- SWMUs Group=AOC-U Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.850	1.850	DET	0.244	mg/kg	S
Holloman Table 2	SW7740	S	5.080	5.080	DET	0.285	mg/kg	S
Holloman Table 2	SW7740	S	4.880	4.880	DET	0.304	mg/kg	S
Holloman Table 2	SW7740	S	3.700	3.700	DET	0.285	mg/kg	S
Holloman Table 2	SW7740	S	3.080	3.080	DET	0.280	mg/kg	S
Holloman Table 2	SW7740	S	3.550	3.550	DET	0.247	mg/kg	S
Holloman Table 2	SW7740	S	1.750	1.750	DET	0.270	mg/kg	S
Holloman Table 2	SW7740	S	2.050	2.050	DET	0.259	mg/kg	S
Holloman Table 2	SW7740	S	2.780	2.780	DET	0.225	mg/kg	S
Holloman Table 2	SW7740	S	4.670	4.670	DET	0.342	mg/kg	S
Holloman Table 2	SW7740	S	2.080	2.080	DET	0.274	mg/kg	S
Holloman Table 2	SW7740	S	1.740	1.740	DET	0.231	mg/kg	S
Holloman Table 2	SW7740	S	2.480	2.480	DET	0.212	mg/kg	S
Holloman Table 2	SW7740	S	0.168	0.168	DET	0.282	mg/kg	SJ
Holloman Table 2	SW7740	S	4.100	4.100	DET	0.239	mg/kg	S

N = 15

---------- SWMUs Group=AOC-U Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.910	-0.910	DET	0.160	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.547	-0.547	DET	0.179	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.562	-0.562	DET	0.182	mg/kg	BJ
Holloman Table 2	SW6010	S	0.521	0.521	DET	0.185	mg/kg	B
Holloman Table 2	SW6010	S	0.400	0.400	DET	0.168	mg/kg	B
Holloman Table 2	SW6010	S	-0.784	-0.784	DET	0.182	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.270	-1.270	DET	0.171	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.400	-0.400	DET	0.177	mg/kg	BJ
Holloman Table 2	SW6010	S	0.103	0.103	DET	0.171	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.151	-0.151	DET	0.210	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.790	-1.790	DET	0.153	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.510	-1.510	DET	0.162	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.870	-1.870	DET	0.182	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.870	-1.870	DET	0.180	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.419	-0.419	DET	0.171	mg/kg	BJ

N = 15

---------- SWMUs Group=AOC-U Method=Organics Analyte=Acetone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.99000	0.99000	DET	0.0290	mg/kg	
Holloman Table 2	SW8240	S	0.15400	0.15400	DET	0.0058	mg/kg	
Holloman Table 2	SW8240	S	.	0.00169	ND	0.0059	mg/kg	
Holloman Table 2	SW8240	S	0.03120	0.03120	DET	0.0061	mg/kg	
Holloman Table 2	SW8240	S	0.00912	0.00912	DET	0.0225	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00536	0.00536	DET	0.0250	mg/kg	BJ
Holloman Table 2	SW8240	S	0.04080	0.04080	DET	0.0054	mg/kg	
Holloman Table 2	SW8240	S	3.34000	3.34000	DET	0.0060	mg/kg	
Holloman Table 2	SW8240	S	0.00997	0.00997	DET	0.0203	mg/kg	BJ

N = 9

--------- SWMUs Group=AOC-U Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.004221	ND	.00140	mg/kg	
Holloman Table 2	SW8240	S	.	0.016464	ND	.00140	mg/kg	
Holloman Table 2	SW8240	S	.	0.021772	ND	.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.004833	ND	.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.018354	ND	.00408	mg/kg	
Holloman Table 2	SW8240	S	.	0.014400	ND	.00453	mg/kg	
Holloman Table 2	SW8240	S	.	0.015472	ND	.00140	mg/kg	
Holloman Table 2	SW8240	S	0.0254	0.025400	DET	.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.008009	ND	.00367	mg/kg	

N = 9

---------- SWMUs Group=AOC-U Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	6.94	6.94	DET	36.1	mg/kg	BJ
Holloman Table 2	E418.1	S	7.03	7.03	DET	36.5	mg/kg	BJ
Holloman Table 2	E418.1	S	6.98	6.98	DET	36.3	mg/kg	BJ
Holloman Table 2	E418.1	S	3.46	3.46	DET	39.9	mg/kg	BJ
Holloman Table 2	E418.1	S	10.80	10.80	DET	38.3	mg/kg	BJ
Holloman Table 2	E418.1	S	3.05	3.05	DET	42.7	mg/kg	BJ
Holloman Table 2	E418.1	S	14.70	14.70	DET	36.4	mg/kg	BJ
Holloman Table 2	E418.1	S	10.30	10.30	DET	34.5	mg/kg	BJ
Holloman Table 2	E418.1	S	2.46	2.46	DET	34.5	mg/kg	BJ

N = 9

-------- SWMUs Group=AOC-U Method=Organics Analyte=Methylene Chloride ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00600	.00600	DET	.00140	mg/kg	B
Holloman Table 2	SW8240	S	.00570	.00570	DET	.00140	mg/kg	B
Holloman Table 2	SW8240	S	.00560	.00560	DET	.00150	mg/kg	B
Holloman Table 2	SW8240	S	.00520	.00520	DET	.00150	mg/kg	B
Holloman Table 2	SW8240	S	.00102	.00102	DET	.00320	mg/kg	BJ
Holloman Table 2	SW8240	S	.00125	.00125	DET	.00355	mg/kg	BJ
Holloman Table 2	SW8240	S	.00470	.00470	DET	.00140	mg/kg	B
Holloman Table 2	SW8240	S	.00560	.00560	DET	.00150	mg/kg	B
Holloman Table 2	SW8240	S	.00119	.00119	DET	.00288	mg/kg	BJ

N = 9

---------- SWMUs Group=AOC-U Method=Organics Analyte=Trichloroethene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.0085	.0085000	DET	.00290	mg/kg	
Holloman Table 2	SW8240	S	.	.0034497	ND	.00290	mg/kg	
Holloman Table 2	SW8240	S	.	.0064327	ND	.00290	mg/kg	
Holloman Table 2	SW8240	S	.	.0065544	ND	.00300	mg/kg	
Holloman Table 2	SW8240	S	.	.0033929	ND	.00489	mg/kg	
Holloman Table 2	SW8240	S	.	.0019962	ND	.00542	mg/kg	
Holloman Table 2	SW8240	S	.	.0002420	ND	.00270	mg/kg	
Holloman Table 2	SW8240	S	.	.0073954	ND	.00300	mg/kg	
Holloman Table 2	SW8240	S	.	.0070491	ND	.00440	mg/kg	

N = 9

Attachment B.3: Subsurface Soil Raw Data For COPCs

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,1-Trichloroethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.01212	ND	0.00212	mg/kg	
Holloman Table 2	SW8240	S	.	0.09273	ND	0.00297	mg/kg	
Holloman Table 2	SW8240	S	.	0.06184	ND	0.00298	mg/kg	
Holloman Table 2	SW8240	S	.	0.01719	ND	0.00308	mg/kg	
Holloman Table 2	SW8240	S	.	0.09976	ND	0.00316	mg/kg	
Holloman Table 2	SW8240	S	.	0.11409	ND	0.00293	mg/kg	
Holloman Table 2	SW8240	S	.	0.10306	ND	0.00933	mg/kg	
Holloman Table 2	SW8240	S	.	0.00003	ND	0.00421	mg/kg	
Holloman Table 2	SW8240	S	.	0.06720	ND	0.00980	mg/kg	
Holloman Table 2	SW8240	S	.	0.00042	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.08781	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.00639	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.05450	ND	0.00195	mg/kg	
Holloman Table 2	SW8240	S	.	0.06666	ND	0.00188	mg/kg	

N = 15

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,2,2-Tetrachloroethane -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07129	ND	0.00576	mg/kg	
Holloman Table 2	SW8240	S	.	0.11991	ND	0.00476	mg/kg	
Holloman Table 2	SW8240	S	.	0.06950	ND	0.00479	mg/kg	
Holloman Table 2	SW8240	S	.	0.09476	ND	0.00495	mg/kg	
Holloman Table 2	SW8240	S	.	0.04507	ND	0.00507	mg/kg	
Holloman Table 2	SW8240	S	.	0.08922	ND	0.00470	mg/kg	
Holloman Table 2	SW8240	S	.	0.02398	ND	0.02530	mg/kg	
Holloman Table 2	SW8240	S	.	0.04986	ND	0.01140	mg/kg	
Holloman Table 2	SW8240	S	.	0.03034	ND	0.02660	mg/kg	
Holloman Table 2	SW8240	S	.	0.07154	ND	0.00577	mg/kg	
Holloman Table 2	SW8240	S	.	0.02034	ND	0.00537	mg/kg	
Holloman Table 2	SW8240	S	.	0.05963	ND	0.00537	mg/kg	
Holloman Table 2	SW8240	S	.	0.05528	ND	0.00530	mg/kg	
Holloman Table 2	SW8240	S	.	0.01618	ND	0.00510	mg/kg	

N = 15

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1,2-Trichloroethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08763	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.01508	ND	0.00110	mg/kg	
Holloman Table 2	SW8240	S	.	0.11921	ND	0.00111	mg/kg	
Holloman Table 2	SW8240	S	.	0.10339	ND	0.00115	mg/kg	
Holloman Table 2	SW8240	S	.	0.11449	ND	0.00117	mg/kg	
Holloman Table 2	SW8240	S	.	0.09045	ND	0.00109	mg/kg	
Holloman Table 2	SW8240	S	.	0.03202	ND	0.00762	mg/kg	
Holloman Table 2	SW8240	S	.	0.04922	ND	0.00344	mg/kg	
Holloman Table 2	SW8240	S	.	0.04168	ND	0.00800	mg/kg	
Holloman Table 2	SW8240	S	.	0.08414	ND	0.00174	mg/kg	
Holloman Table 2	SW8240	S	.	0.11896	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.02449	ND	0.00162	mg/kg	
Holloman Table 2	SW8240	S	.	0.05119	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.07399	ND	0.00153	mg/kg	

N = 15

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1-Dichloroethane -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02271	ND	0.00195	mg/kg	
Holloman Table 2	SW8240	S	.	0.02364	ND	0.00230	mg/kg	
Holloman Table 2	SW8240	S	.	0.00492	ND	0.00231	mg/kg	
Holloman Table 2	SW8240	S	.	0.03414	ND	0.00239	mg/kg	
Holloman Table 2	SW8240	S	.	0.04200	ND	0.00245	mg/kg	
Holloman Table 2	SW8240	S	.	0.04527	ND	0.00227	mg/kg	
Holloman Table 2	SW8240	S	.	0.04083	ND	0.00857	mg/kg	
Holloman Table 2	SW8240	S	.	0.00722	ND	0.00386	mg/kg	
Holloman Table 2	SW8240	S	.	0.11271	ND	0.00899	mg/kg	
Holloman Table 2	SW8240	S	.	0.06720	ND	0.00195	mg/kg	
Holloman Table 2	SW8240	S	.	0.08704	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.09395	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.02676	ND	0.00179	mg/kg	
Holloman Table 2	SW8240	S	.	0.09092	ND	0.00172	mg/kg	

N = 15

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,1-Dichloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.01686	ND	0.00291	mg/kg	
Holloman Table 2	SW8240	S	.	0.08729	ND	0.00364	mg/kg	
Holloman Table 2	SW8240	S	.	0.02572	ND	0.00367	mg/kg	
Holloman Table 2	SW8240	S	.	0.03158	ND	0.00379	mg/kg	
Holloman Table 2	SW8240	S	.	0.03632	ND	0.00388	mg/kg	
Holloman Table 2	SW8240	S	.	0.03218	ND	0.00360	mg/kg	
Holloman Table 2	SW8240	S	.	0.08817	ND	0.01280	mg/kg	
Holloman Table 2	SW8240	S	.	0.00999	ND	0.00578	mg/kg	
Holloman Table 2	SW8240	S	.	0.11079	ND	0.01350	mg/kg	
Holloman Table 2	SW8240	S	.	0.06102	ND	0.00292	mg/kg	
Holloman Table 2	SW8240	S	.	0.05241	ND	0.00272	mg/kg	
Holloman Table 2	SW8240	S	.	0.04532	ND	0.00272	mg/kg	
Holloman Table 2	SW8240	S	.	0.08848	ND	0.00268	mg/kg	
Holloman Table 2	SW8240	S	.	0.06083	ND	0.00258	mg/kg	

N = 15

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichloroethane -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.10917	ND	0.00197	mg/kg	
Holloman Table 2	SW8240	S	.	0.11886	ND	0.00116	mg/kg	
Holloman Table 2	SW8240	S	.	0.08304	ND	0.00116	mg/kg	
Holloman Table 2	SW8240	S	.	0.09363	ND	0.00120	mg/kg	
Holloman Table 2	SW8240	S	.	0.11888	ND	0.00123	mg/kg	
Holloman Table 2	SW8240	S	.	0.05194	ND	0.00114	mg/kg	
Holloman Table 2	SW8240	S	.	0.01652	ND	0.00868	mg/kg	
Holloman Table 2	SW8240	S	.	0.09752	ND	0.00392	mg/kg	
Holloman Table 2	SW8240	S	.	0.09709	ND	0.00911	mg/kg	
Holloman Table 2	SW8240	S	.	0.00885	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.01252	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.00585	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.10075	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.10510	ND	0.00175	mg/kg	

N = 15

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=1,2-Dichloropropane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08449	ND	0.00298	mg/kg	
Holloman Table 2	SW8240	S	.	0.00795	ND	0.00197	mg/kg	
Holloman Table 2	SW8240	S	.	0.09816	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.01361	ND	0.00205	mg/kg	
Holloman Table 2	SW8240	S	.	0.01728	ND	0.00210	mg/kg	
Holloman Table 2	SW8240	S	.	0.07853	ND	0.00194	mg/kg	
Holloman Table 2	SW8240	S	.	0.03169	ND	0.01310	mg/kg	
Holloman Table 2	SW8240	S	.	0.08261	ND	0.00592	mg/kg	
Holloman Table 2	SW8240	S	.	0.10688	ND	0.01380	mg/kg	
Holloman Table 2	SW8240	S	.	0.10888	ND	0.00299	mg/kg	
Holloman Table 2	SW8240	S	.	0.05577	ND	0.00278	mg/kg	
Holloman Table 2	SW8240	S	.	0.00228	ND	0.00278	mg/kg	
Holloman Table 2	SW8240	S	.	0.09179	ND	0.00275	mg/kg	
Holloman Table 2	SW8240	S	.	0.04798	ND	0.00264	mg/kg	

N = 15

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4,5-T ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8150	S	0.01200	0.012000	DET
Holloman Table 2	SW8150	S	0.00274	0.002740	DET
Holloman Table 2	SW8150	S	.	0.000544	ND
Holloman Table 2	SW8150	S	.	0.000080	ND
Holloman Table 2	SW8150	S	0.00079	0.000790	DET
Holloman Table 2	SW8150	S	0.00762	0.007620	DET
Holloman Table 2	SW8150	S	0.00290	0.002900	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	0.01200	mg/kg	
Holloman Table 2	SW8150	0.01760	mg/kg	PJ
Holloman Table 2	SW8150	0.00343	mg/kg	
Holloman Table 2	SW8150	0.01700	mg/kg	
Holloman Table 2	SW8150	0.01780	mg/kg	PJ
Holloman Table 2	SW8150	0.00369	mg/kg	P
Holloman Table 2	SW8150	0.00340	mg/kg	KJ

N = 7

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4,5-TP (Silvex) -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8150	S	0.01000	0.010000	DET
Holloman Table 2	SW8150	S	.	0.000668	ND
Holloman Table 2	SW8150	S	.	0.002453	ND
Holloman Table 2	SW8150	S	0.00299	0.002990	DET
Holloman Table 2	SW8150	S	.	0.002699	ND
Holloman Table 2	SW8150	S	.	0.000016	ND
Holloman Table 2	SW8150	S	.	0.002583	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	0.01000	mg/kg	
Holloman Table 2	SW8150	0.00305	mg/kg	
Holloman Table 2	SW8150	0.00298	mg/kg	
Holloman Table 2	SW8150	0.00295	mg/kg	P
Holloman Table 2	SW8150	0.00309	mg/kg	
Holloman Table 2	SW8150	0.00320	mg/kg	
Holloman Table 2	SW8150	0.00295	mg/kg	

N = 7

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4-D ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.0740	0.074000	DET	0.0740	mg/kg	
Holloman Table 2	SW8150	S	.	0.035828	ND	0.0415	mg/kg	
Holloman Table 2	SW8150	S	.	0.036199	ND	0.0406	mg/kg	
Holloman Table 2	SW8150	S	.	0.015583	ND	0.0403	mg/kg	
Holloman Table 2	SW8150	S	.	0.014772	ND	0.0213	mg/kg	
Holloman Table 2	SW8150	S	0.0474	0.047400	DET	0.0436	mg/kg	
Holloman Table 2	SW8150	S	.	0.043112	ND	0.0401	mg/kg	

N = 7

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4-DB ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.0560	0.056000	DET	0.0560	mg/kg	
Holloman Table 2	SW8150	S	.	0.000887	ND	0.0245	mg/kg	
Holloman Table 2	SW8150	S	.	0.000207	ND	0.0267	mg/kg	
Holloman Table 2	SW8150	S	0.0060	0.006000	DET	0.0237	mg/kg	KJ
Holloman Table 2	SW8150	S	0.0232	0.023200	DET	0.0276	mg/kg	KJ

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2,4-DB ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	0.01500	0.01500	DET	0.0286	mg/kg	J
Holloman Table 2	SW8150	S	0.00167	0.00167	DET	0.0264	mg/kg	KJ

N = 7

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Chloroethyl vinyl ether -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24000	DET	0.24000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00610	ND	0.00325	mg/kg	
Holloman Table 2	SW8240	S	.	0.01156	ND	0.00669	mg/kg	
Holloman Table 2	SW8240	S	.	0.21268	ND	0.00673	mg/kg	
Holloman Table 2	SW8240	S	.	0.04785	ND	0.00696	mg/kg	
Holloman Table 2	SW8240	S	.	0.22551	ND	0.00712	mg/kg	
Holloman Table 2	SW8240	S	.	0.11188	ND	0.00661	mg/kg	
Holloman Table 2	SW8240	S	.	0.06526	ND	0.01430	mg/kg	
Holloman Table 2	SW8240	S	.	0.23307	ND	0.00645	mg/kg	
Holloman Table 2	SW8240	S	.	0.23281	ND	0.01500	mg/kg	
Holloman Table 2	SW8240	S	.	0.11614	ND	0.00326	mg/kg	
Holloman Table 2	SW8240	S	.	0.21489	ND	0.00303	mg/kg	
Holloman Table 2	SW8240	S	.	0.19130	ND	0.00303	mg/kg	
Holloman Table 2	SW8240	S	.	0.21332	ND	0.00299	mg/kg	
Holloman Table 2	SW8240	S	.	0.19652	ND	0.00288	mg/kg	

N = 15

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Hexanone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.2	1.20000	DET	1.20000	mg/kg	
Holloman Table 2	SW8240	S	.	0.12810	ND	0.00109	mg/kg	
Holloman Table 2	SW8240	S	.	0.42172	ND	0.00382	mg/kg	
Holloman Table 2	SW8240	S	.	0.68494	ND	0.00384	mg/kg	
Holloman Table 2	SW8240	S	.	0.24157	ND	0.00397	mg/kg	
Holloman Table 2	SW8240	S	.	0.82583	ND	0.00406	mg/kg	
Holloman Table 2	SW8240	S	.	0.25100	ND	0.00377	mg/kg	
Holloman Table 2	SW8240	S	.	0.65250	ND	0.00479	mg/kg	
Holloman Table 2	SW8240	S	.	0.06127	ND	0.00216	mg/kg	
Holloman Table 2	SW8240	S	.	1.14485	ND	0.00503	mg/kg	
Holloman Table 2	SW8240	S	.	0.16202	ND	0.00109	mg/kg	
Holloman Table 2	SW8240	S	.	0.04344	ND	0.00102	mg/kg	

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=2-Hexanone ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.27907	ND	.001020	mg/kg	
Holloman Table 2	SW8240	S	.	0.26022	ND	.001000	mg/kg	
Holloman Table 2	SW8240	S	.	0.33600	ND	.000965	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDD ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	0.000600	0.000600	DET
Holloman Table 2	SW8080	S	0.010800	0.010800	DET
Holloman Table 2	SW8080	S	.	0.000412	ND
Holloman Table 2	SW8080	S	.	0.000378	ND
Holloman Table 2	SW8080	S	.	0.000445	ND
Holloman Table 2	SW8080	S	0.004270	0.004270	DET
Holloman Table 2	SW8080	S	0.005210	0.005210	DET
Holloman Table 2	SW8080	S	0.000445	0.000445	DET
Holloman Table 2	SW8080	S	0.003030	0.003030	DET
Holloman Table 2	SW8080	S	0.001470	0.001470	DET
Holloman Table 2	SW8080	S	0.003220	0.003220	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	0.000600	mg/kg	
Holloman Table 2	SW8080	0.010900	mg/kg	J
Holloman Table 2	SW8080	0.010800	mg/kg	
Holloman Table 2	SW8080	0.010700	mg/kg	
Holloman Table 2	SW8080	0.003350	mg/kg	
Holloman Table 2	SW8080	0.011400	mg/kg	J
Holloman Table 2	SW8080	0.010700	mg/kg	KJ
Holloman Table 2	SW8080	0.000978	mg/kg	J
Holloman Table 2	SW8080	0.001910	mg/kg	Z
Holloman Table 2	SW8080	0.001930	mg/kg	ZJ
Holloman Table 2	SW8080	0.000962	mg/kg	P

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDE ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	.000600	.0006000	DET
Holloman Table 2	SW8080	S	.003890	.0038900	DET
Holloman Table 2	SW8080	S	.	.0001143	ND
Holloman Table 2	SW8080	S	.	.0002341	ND
Holloman Table 2	SW8080	S	.	.0003259	ND
Holloman Table 2	SW8080	S	.003100	.0031000	DET
Holloman Table 2	SW8080	S	.003300	.0033000	DET
Holloman Table 2	SW8080	S	.000385	.0003850	DET
Holloman Table 2	SW8080	S	.001000	.0010000	DET
Holloman Table 2	SW8080	S	.000685	.0006850	DET
Holloman Table 2	SW8080	S	.	.0002752	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.000600	mg/kg	
Holloman Table 2	SW8080	.002180	mg/kg	
Holloman Table 2	SW8080	.002150	mg/kg	
Holloman Table 2	SW8080	.002140	mg/kg	
Holloman Table 2	SW8080	.002230	mg/kg	
Holloman Table 2	SW8080	.002280	mg/kg	
Holloman Table 2	SW8080	.002130	mg/kg	
Holloman Table 2	SW8080	.000196	mg/kg	
Holloman Table 2	SW8080	.000381	mg/kg	PZ
Holloman Table 2	SW8080	.000387	mg/kg	PZ
Holloman Table 2	SW8080	.000192	mg/kg	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDT ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	0.001200	0.001200	DET
Holloman Table 2	SW8080	S	0.051100	0.051100	DET
Holloman Table 2	SW8080	S	.	0.000609	ND
Holloman Table 2	SW8080	S	0.000925	0.000925	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.00120	mg/kg	
Holloman Table 2	SW8080	.00313	mg/kg	
Holloman Table 2	SW8080	.00310	mg/kg	
Holloman Table 2	SW8080	.00282	mg/kg	KJ

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=4,4'-DDT ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	0.000230	ND	.002930	mg/kg	
Holloman Table 2	SW8080	S	.	0.000308	ND	.003280	mg/kg	
Holloman Table 2	SW8080	S	.	0.000089	ND	.003060	mg/kg	
Holloman Table 2	SW8080	S	0.00131	0.001310	DET	.000281	mg/kg	
Holloman Table 2	SW8080	S	0.01620	0.016200	DET	.000500	mg/kg	PZ
Holloman Table 2	SW8080	S	0.00978	0.009780	DET	.000507	mg/kg	PZ
Holloman Table 2	SW8080	S	.	0.000573	ND	.000252	mg/kg	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.2	1.20000	DET	1.20000	mg/kg	
Holloman Table 2	SW8240	S	.	0.33701	ND	0.00104	mg/kg	
Holloman Table 2	SW8240	S	.	0.27023	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.99049	ND	0.00214	mg/kg	
Holloman Table 2	SW8240	S	.	0.37314	ND	0.00221	mg/kg	
Holloman Table 2	SW8240	S	.	0.20792	ND	0.00227	mg/kg	
Holloman Table 2	SW8240	S	.	1.03902	ND	0.00210	mg/kg	
Holloman Table 2	SW8240	S	.	0.75474	ND	0.00457	mg/kg	
Holloman Table 2	SW8240	S	.	0.26229	ND	0.00206	mg/kg	
Holloman Table 2	SW8240	S	.	0.05255	ND	0.00480	mg/kg	
Holloman Table 2	SW8240	S	.	0.17849	ND	0.00104	mg/kg	
Holloman Table 2	SW8240	S	.	1.14197	ND	0.00097	mg/kg	
Holloman Table 2	SW8240	S	.	0.93679	ND	0.00097	mg/kg	
Holloman Table 2	SW8240	S	.	0.52138	ND	0.00096	mg/kg	
Holloman Table 2	SW8240	S	.	0.59277	ND	0.00092	mg/kg	

N = 15

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.4000	2.4000	DET	2.40000	mg/kg	
Holloman Table 2	SW8240	S	0.0395	0.0395	DET	0.00170	mg/kg	B
Holloman Table 2	SW8240	S	0.1200	0.1200	DET	0.03270	mg/kg	B
Holloman Table 2	SW8240	S	0.1240	0.1240	DET	0.03290	mg/kg	B
Holloman Table 2	SW8240	S	0.1500	0.1500	DET	0.03400	mg/kg	B
Holloman Table 2	SW8240	S	1.1600	1.1600	DET	0.11900	mg/kg	X
Holloman Table 2	SW8240	S	0.7180	0.7180	DET	0.00837	mg/kg	B

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Acetone ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0773	0.0773	DET	.00750	mg/kg	B
Holloman Table 2	SW8240	S	0.0340	0.0340	DET	.00338	mg/kg	B
Holloman Table 2	SW8240	S	0.0861	0.0861	DET	.00787	mg/kg	B
Holloman Table 2	SW8240	S	0.1050	0.1050	DET	.00171	mg/kg	B
Holloman Table 2	SW8240	S	0.0107	0.0107	DET	.00159	mg/kg	B
Holloman Table 2	SW8240	S	0.0324	0.0324	DET	.00159	mg/kg	B
Holloman Table 2	SW8240	S	0.0382	0.0382	DET	.00157	mg/kg	B
Holloman Table 2	SW8240	S	0.0301	0.0301	DET	.00151	mg/kg	B

N = 15

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Aldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	0.000600	0.000600	DET
Holloman Table 2	SW8080	S	0.002880	0.002880	DET
Holloman Table 2	SW8080	S	.	0.000069	ND
Holloman Table 2	SW8080	S	.	0.000087	ND
Holloman Table 2	SW8080	S	0.013700	0.013700	DET
Holloman Table 2	SW8080	S	0.034100	0.034100	DET
Holloman Table 2	SW8080	S	0.004230	0.004230	DET
Holloman Table 2	SW8080	S	0.000260	0.000260	DET
Holloman Table 2	SW8080	S	0.000668	0.000668	DET
Holloman Table 2	SW8080	S	0.000482	0.000482	DET
Holloman Table 2	SW8080	S	.	0.000204	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.0006000	mg/kg	
Holloman Table 2	SW8080	.0010900	mg/kg	
Holloman Table 2	SW8080	.0010800	mg/kg	
Holloman Table 2	SW8080	.0010700	mg/kg	
Holloman Table 2	SW8080	.0011200	mg/kg	P
Holloman Table 2	SW8080	.0011400	mg/kg	P
Holloman Table 2	SW8080	.0010700	mg/kg	P
Holloman Table 2	SW8080	.0000978	mg/kg	
Holloman Table 2	SW8080	.0001910	mg/kg	
Holloman Table 2	SW8080	.0001930	mg/kg	P
Holloman Table 2	SW8080	.0000962	mg/kg	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03226	ND	0.00196	mg/kg	
Holloman Table 2	SW8240	S	.	0.01587	ND	0.00201	mg/kg	
Holloman Table 2	SW8240	S	.	0.07406	ND	0.00202	mg/kg	
Holloman Table 2	SW8240	S	.	0.00202	ND	0.00209	mg/kg	
Holloman Table 2	SW8240	S	.	0.10397	ND	0.00214	mg/kg	
Holloman Table 2	SW8240	S	.	0.05002	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.05346	ND	0.00862	mg/kg	
Holloman Table 2	SW8240	S	.	0.00562	ND	0.00389	mg/kg	
Holloman Table 2	SW8240	S	.	0.09949	ND	0.00905	mg/kg	
Holloman Table 2	SW8240	S	.	0.04554	ND	0.00196	mg/kg	
Holloman Table 2	SW8240	S	.	0.05567	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.09101	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.00683	ND	0.00181	mg/kg	
Holloman Table 2	SW8240	S	.	0.05096	ND	0.00174	mg/kg	

N = 15

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Bromodichloromethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07320	ND	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.01201	ND	0.00452	mg/kg	
Holloman Table 2	SW8240	S	.	0.04468	ND	0.00455	mg/kg	
Holloman Table 2	SW8240	S	.	0.03063	ND	0.00470	mg/kg	
Holloman Table 2	SW8240	S	.	0.06599	ND	0.00481	mg/kg	
Holloman Table 2	SW8240	S	.	0.08515	ND	0.00446	mg/kg	
Holloman Table 2	SW8240	S	.	0.01118	ND	0.00815	mg/kg	
Holloman Table 2	SW8240	S	.	0.00260	ND	0.00368	mg/kg	
Holloman Table 2	SW8240	S	.	0.05668	ND	0.00856	mg/kg	
Holloman Table 2	SW8240	S	.	0.03767	ND	0.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.11392	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.09352	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.00666	ND	0.00171	mg/kg	
Holloman Table 2	SW8240	S	.	0.05783	ND	0.00164	mg/kg	

N = 15

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Bromome[illegible]e --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24000	DET	0.24000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00278	ND	0.00228	mg/kg	
Holloman Table 2	SW8240	S	.	0.07177	ND	0.00328	mg/kg	
Holloman Table 2	SW8240	S	.	0.12908	ND	0.00330	mg/kg	
Holloman Table 2	SW8240	S	.	0.06548	ND	0.00342	mg/kg	
Holloman Table 2	SW8240	S	.	0.19846	ND	0.00350	mg/kg	
Holloman Table 2	SW8240	S	.	0.01417	ND	0.00324	mg/kg	
Holloman Table 2	SW8240	S	.	0.01653	ND	0.01000	mg/kg	
Holloman Table 2	SW8240	S	.	0.14128	ND	0.00453	mg/kg	
Holloman Table 2	SW8240	S	.	0.23240	ND	0.01050	mg/kg	
Holloman Table 2	SW8240	S	.	0.11393	ND	0.00229	mg/kg	
Holloman Table 2	SW8240	S	.	0.20196	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.08235	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.17298	ND	0.00210	mg/kg	
Holloman Table 2	SW8240	S	.	0.12163	ND	0.00202	mg/kg	

N = 15

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Carbon disulfide ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.1200	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00397	ND	0.00294	mg/kg	
Holloman Table 2	SW8240	S	.	0.01166	ND	0.00535	mg/kg	
Holloman Table 2	SW8240	S	.	0.00456	ND	0.00538	mg/kg	
Holloman Table 2	SW8240	S	.	0.00549	ND	0.00556	mg/kg	
Holloman Table 2	SW8240	S	.	0.00380	ND	0.00569	mg/kg	
Holloman Table 2	SW8240	S	.	0.00060	ND	0.00528	mg/kg	
Holloman Table 2	SW8240	S	0.0175	0.01750	DET	0.01290	mg/kg	
Holloman Table 2	SW8240	S	.	0.00769	ND	0.00584	mg/kg	
Holloman Table 2	SW8240	S	0.0131	0.01310	DET	0.01360	mg/kg	J
Holloman Table 2	SW8240	S	.	0.00480	ND	0.00295	mg/kg	
Holloman Table 2	SW8240	S	.	0.00617	ND	0.00274	mg/kg	
Holloman Table 2	SW8240	S	.	0.01263	ND	0.00274	mg/kg	
Holloman Table 2	SW8240	S	.	0.01130	ND	0.00271	mg/kg	
Holloman Table 2	SW8240	S	.	0.00668	ND	0.00261	mg/kg	

N = 15

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Carbon tetrachloride ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00737	ND	0.00227	mg/kg	
Holloman Table 2	SW8240	S	.	0.10695	ND	0.00259	mg/kg	
Holloman Table 2	SW8240	S	.	0.04785	ND	0.00261	mg/kg	
Holloman Table 2	SW8240	S	.	0.11640	ND	0.00270	mg/kg	
Holloman Table 2	SW8240	S	.	0.08681	ND	0.00276	mg/kg	
Holloman Table 2	SW8240	S	.	0.01423	ND	0.00256	mg/kg	
Holloman Table 2	SW8240	S	.	0.00330	ND	0.00998	mg/kg	
Holloman Table 2	SW8240	S	.	0.03878	ND	0.00450	mg/kg	
Holloman Table 2	SW8240	S	.	0.01790	ND	0.01050	mg/kg	
Holloman Table 2	SW8240	S	.	0.06563	ND	0.00227	mg/kg	
Holloman Table 2	SW8240	S	.	0.07647	ND	0.00212	mg/kg	
Holloman Table 2	SW8240	S	.	0.02573	ND	0.00212	mg/kg	
Holloman Table 2	SW8240	S	.	0.11592	ND	0.00209	mg/kg	
Holloman Table 2	SW8240	S	.	0.03231	ND	0.00201	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlordane ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.003	.0030000	DET	0.00300	mg/kg	
Holloman Table 2	SW8080	S	.	.0014579	ND	0.01360	mg/kg	X
Holloman Table 2	SW8080	S	.	.0010892	ND	0.01350	mg/kg	
Holloman Table 2	SW8080	S	.	.0013489	ND	0.01340	mg/kg	
Holloman Table 2	SW8080	S	.	.0026515	ND	0.01400	mg/kg	X
Holloman Table 2	SW8080	S	.	.0003976	ND	0.01420	mg/kg	
Holloman Table 2	SW8080	S	.	.0013235	ND	0.01330	mg/kg	X
Holloman Table 2	SW8080	S	.	.0001915	ND	0.00122	mg/kg	
Holloman Table 2	SW8080	S	.	.0023783	ND	0.00238	mg/kg	
Holloman Table 2	SW8080	S	.	.0013084	ND	0.00242	mg/kg	
Holloman Table 2	SW8080	S	.	.0011368	ND	0.00120	mg/kg	

N = 11

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorobenzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03986	ND	0.00527	mg/kg	
Holloman Table 2	SW8240	S	.	0.08389	ND	0.00154	mg/kg	
Holloman Table 2	SW8240	S	.	0.03933	ND	0.00155	mg/kg	

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorobenzene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.09890	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.04263	ND	0.00164	mg/kg	
Holloman Table 2	SW8240	S	.	0.05959	ND	0.00152	mg/kg	
Holloman Table 2	SW8240	S	.	0.06070	ND	0.02320	mg/kg	
Holloman Table 2	SW8240	S	.	0.00527	ND	0.01050	mg/kg	
Holloman Table 2	SW8240	S	.	0.07021	ND	0.02440	mg/kg	
Holloman Table 2	SW8240	S	.	0.06260	ND	0.00529	mg/kg	
Holloman Table 2	SW8240	S	.	0.11399	ND	0.00492	mg/kg	
Holloman Table 2	SW8240	S	.	0.05722	ND	0.00492	mg/kg	
Holloman Table 2	SW8240	S	.	0.06804	ND	0.00486	mg/kg	
Holloman Table 2	SW8240	S	.	0.00440	ND	0.00467	mg/kg	

N = 15

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24000	DET	0.24000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03453	ND	0.00232	mg/kg	
Holloman Table 2	SW8240	S	.	0.22347	ND	0.00307	mg/kg	
Holloman Table 2	SW8240	S	.	0.16952	ND	0.00309	mg/kg	
Holloman Table 2	SW8240	S	.	0.13890	ND	0.00319	mg/kg	
Holloman Table 2	SW8240	S	.	0.23845	ND	0.00327	mg/kg	
Holloman Table 2	SW8240	S	.	0.08665	ND	0.00303	mg/kg	
Holloman Table 2	SW8240	S	.	0.21463	ND	0.01020	mg/kg	
Holloman Table 2	SW8240	S	.	0.08394	ND	0.00461	mg/kg	
Holloman Table 2	SW8240	S	.	0.15637	ND	0.01070	mg/kg	
Holloman Table 2	SW8240	S	.	0.13968	ND	0.00233	mg/kg	
Holloman Table 2	SW8240	S	.	0.10613	ND	0.00217	mg/kg	
Holloman Table 2	SW8240	S	.	0.08904	ND	0.00217	mg/kg	
Holloman Table 2	SW8240	S	.	0.07345	ND	0.00214	mg/kg	
Holloman Table 2	SW8240	S	.	0.16744	ND	0.00206	mg/kg	

N = 15

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroform ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07428	ND	0.00237	mg/kg	
Holloman Table 2	SW8240	S	.	0.05282	ND	0.00169	mg/kg	

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloroform ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.07430	ND	0.00170	mg/kg	
Holloman Table 2	SW8240	S	.	0.00734	ND	0.00176	mg/kg	
Holloman Table 2	SW8240	S	.	0.09987	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	0.11769	ND	0.00167	mg/kg	
Holloman Table 2	SW8240	S	.	0.07604	ND	0.01050	mg/kg	
Holloman Table 2	SW8240	S	.	0.04538	ND	0.00472	mg/kg	
Holloman Table 2	SW8240	S	.	0.07950	ND	0.01100	mg/kg	
Holloman Table 2	SW8240	S	.	0.08272	ND	0.00238	mg/kg	
Holloman Table 2	SW8240	S	.	0.09398	ND	0.00222	mg/kg	
Holloman Table 2	SW8240	S	.	0.01074	ND	0.00222	mg/kg	
Holloman Table 2	SW8240	S	.	0.09142	ND	0.00219	mg/kg	
Holloman Table 2	SW8240	S	.	0.11339	ND	0.00211	mg/kg	

N = 15

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chloromethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24000	0.24000	DET	0.24000	mg/kg	
Holloman Table 2	SW8240	S	0.00266	0.00266	DET	0.00276	mg/kg	BJ
Holloman Table 2	SW8240	S	.	0.00021	ND	0.00289	mg/kg	
Holloman Table 2	SW8240	S	.	0.00033	ND	0.00290	mg/kg	
Holloman Table 2	SW8240	S	.	0.00169	ND	0.00300	mg/kg	
Holloman Table 2	SW8240	S	.	0.00024	ND	0.00307	mg/kg	
Holloman Table 2	SW8240	S	.	0.00039	ND	0.00285	mg/kg	
Holloman Table 2	SW8240	S	.	0.00050	ND	0.01220	mg/kg	
Holloman Table 2	SW8240	S	.	0.00197	ND	0.00549	mg/kg	
Holloman Table 2	SW8240	S	0.00601	0.00601	DET	0.01280	mg/kg	BJ
Holloman Table 2	SW8240	S	.	0.00106	ND	0.00277	mg/kg	
Holloman Table 2	SW8240	S	.	0.00046	ND	0.00258	mg/kg	
Holloman Table 2	SW8240	S	.	0.00153	ND	0.00258	mg/kg	
Holloman Table 2	SW8240	S	.	0.00051	ND	0.00255	mg/kg	
Holloman Table 2	SW8240	S	.	0.00048	ND	0.00245	mg/kg	

N = 15

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorpyrifos (Dursban) ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.01220	0.01220	DET	0.09220	mg/kg	J
Holloman Table 2	SW8140	S	0.00228	0.00228	DET	0.00807	mg/kg	KJ

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chlorpyrifos (Dursban) ---
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.00424	0.00424	DET	0.0904	mg/kg	J
Holloman Table 2	SW8140	S	0.00416	0.00416	DET	0.0934	mg/kg	J
Holloman Table 2	SW8140	S	2.70000	2.70000	DET	0.9690	mg/kg	
Holloman Table 2	SW8140	S	0.02400	0.02400	DET	0.0900	mg/kg	J

N = 6

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	71.5	71.5000	DET	119	ug/kg	J
Holloman Table 2	SW8270	S	.	56.9045	ND	127	ug/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dalapon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.36	0.36000	DET	0.360	mg/kg	
Holloman Table 2	SW8150	S	.	0.09486	ND	0.253	mg/kg	
Holloman Table 2	SW8150	S	.	0.15387	ND	0.247	mg/kg	
Holloman Table 2	SW8150	S	.	0.24989	ND	0.245	mg/kg	
Holloman Table 2	SW8150	S	.	0.07867	ND	0.256	mg/kg	
Holloman Table 2	SW8150	S	.	0.24421	ND	0.265	mg/kg	
Holloman Table 2	SW8150	S	.	0.06156	ND	0.244	mg/kg	

N = 7

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Demeton O ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.091	0.091000	DET	0.0910	mg/kg	
Holloman Table 2	SW8140	S	.	0.082727	ND	0.0499	mg/kg	
Holloman Table 2	SW8140	S	.	0.079499	ND	0.0480	mg/kg	
Holloman Table 2	SW8140	S	.	0.020974	ND	0.0490	mg/kg	
Holloman Table 2	SW8140	S	.	0.019928	ND	0.0506	mg/kg	
Holloman Table 2	SW8140	S	.	0.020679	ND	0.0525	mg/kg	
Holloman Table 2	SW8140	S	.	0.042391	ND	0.0487	mg/kg	

N = 7

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Demeton S ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.091	0.091000	DET	0.0910	mg/kg	
Holloman Table 2	SW8140	S	.	0.009135	ND	0.0744	mg/kg	
Holloman Table 2	SW8140	S	.	0.035696	ND	0.0716	mg/kg	
Holloman Table 2	SW8140	S	.	0.040612	ND	0.0730	mg/kg	
Holloman Table 2	SW8140	S	.	0.083729	ND	0.0754	mg/kg	
Holloman Table 2	SW8140	S	.	0.009313	ND	0.0782	mg/kg	
Holloman Table 2	SW8140	S	.	0.088027	ND	0.0727	mg/kg	

N = 7

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Diazinon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.005560	0.005560	DET	0.0132	mg/kg	BJ
Holloman Table 2	SW8140	S	0.001790	0.001790	DET	0.0127	mg/kg	BJ
Holloman Table 2	SW8140	S	0.001290	0.001290	DET	0.0129	mg/kg	BJ
Holloman Table 2	SW8140	S	0.000905	0.000905	DET	0.0133	mg/kg	BJ
Holloman Table 2	SW8140	S	0.032900	0.032900	DET	0.0138	mg/kg	B
Holloman Table 2	SW8140	S	0.002080	0.002080	DET	0.0129	mg/kg	BJ

N = 6

--- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dibromochloromethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.11681	ND	0.00208	mg/kg	
Holloman Table 2	SW8240	S	.	0.06959	ND	0.00113	mg/kg	
Holloman Table 2	SW8240	S	.	0.11483	ND	0.00114	mg/kg	
Holloman Table 2	SW8240	S	.	0.11410	ND	0.00118	mg/kg	
Holloman Table 2	SW8240	S	.	0.08107	ND	0.00121	mg/kg	
Holloman Table 2	SW8240	S	.	0.07582	ND	0.00112	mg/kg	
Holloman Table 2	SW8240	S	.	0.07811	ND	0.00916	mg/kg	
Holloman Table 2	SW8240	S	.	0.03392	ND	0.00413	mg/kg	
Holloman Table 2	SW8240	S	.	0.06210	ND	0.00961	mg/kg	
Holloman Table 2	SW8240	S	.	0.08672	ND	0.00209	mg/kg	
Holloman Table 2	SW8240	S	.	0.09426	ND	0.00194	mg/kg	
Holloman Table 2	SW8240	S	.	0.08646	ND	0.00194	mg/kg	
Holloman Table 2	SW8240	S	.	0.08514	ND	0.00192	mg/kg	
Holloman Table 2	SW8240	S	.	0.04119	ND	0.00184	mg/kg	

N = 15

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dicamba ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.01700	0.017000	DET	0.01700	mg/kg	
Holloman Table 2	SW8150	S	0.00186	0.001860	DET	0.00268	mg/kg	KJ
Holloman Table 2	SW8150	S	0.00242	0.002420	DET	0.00261	mg/kg	KJ
Holloman Table 2	SW8150	S	0.00199	0.001990	DET	0.00259	mg/kg	KJ
Holloman Table 2	SW8150	S	0.00025	0.000250	DET	0.00213	mg/kg	PJ
Holloman Table 2	SW8150	S	.	0.000134	ND	0.00221	mg/kg	
Holloman Table 2	SW8150	S	.	0.000027	ND	0.00203	mg/kg	

N = 7

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dichloroprop --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.04000	0.04000	DET	0.0400	mg/kg	
Holloman Table 2	SW8150	S	0.00270	0.00270	DET	0.0478	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00612	0.00612	DET	0.5470	mg/kg	J
Holloman Table 2	SW8150	S	0.11400	0.11400	DET	0.5430	mg/kg	KJ
Holloman Table 2	SW8150	S	0.19500	0.19500	DET	0.5680	mg/kg	J
Holloman Table 2	SW8150	S	0.06030	0.06030	DET	0.0501	mg/kg	P
Holloman Table 2	SW8150	S	0.01130	0.01130	DET	0.0462	mg/kg	PJ

N = 7

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dieldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0006	.00060000	DET	.00060	mg/kg	
Holloman Table 2	SW8080	S	.	.00006006	ND	.00218	mg/kg	
Holloman Table 2	SW8080	S	.	.00004609	ND	.00256	mg/kg	
Holloman Table 2	SW8080	S	.	.00025414	ND	.00255	mg/kg	
Holloman Table 2	SW8080	S	.	.00024375	ND	.00223	mg/kg	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dieldrin ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.0002363	ND	.002280	mg/kg	
Holloman Table 2	SW8080	S	.	.0001714	ND	.002530	mg/kg	
Holloman Table 2	SW8080	S	.	.0001423	ND	.000196	mg/kg	
Holloman Table 2	SW8080	S	.	.0001752	ND	.000381	mg/kg	
Holloman Table 2	SW8080	S	.001750	.0017500	DET	.000459	mg/kg	Z
Holloman Table 2	SW8080	S	.000267	.0002670	DET	.000192	mg/kg	P

N = 11

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dimethoate ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.037	0.037	DET	0.037	mg/kg	

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Dinoseb ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	.0092	.0092000	DET	0.0092	mg/kg	
Holloman Table 2	SW8150	S	.	.0072393	ND	0.0269	mg/kg	
Holloman Table 2	SW8150	S	.	.0002927	ND	0.0263	mg/kg	
Holloman Table 2	SW8150	S	.	.0000514	ND	0.0261	mg/kg	
Holloman Table 2	SW8150	S	.	.0016518	ND	0.0272	mg/kg	
Holloman Table 2	SW8150	S	.	.0091228	ND	0.0282	mg/kg	
Holloman Table 2	SW8150	S	.	.0085458	ND	0.0260	mg/kg	

N = 7

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Disulfoton ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.037	0.037000	DET	0.0370	mg/kg	
Holloman Table 2	SW8140	S	.	0.008212	ND	0.0701	mg/kg	
Holloman Table 2	SW8140	S	.	0.000641	ND	0.0674	mg/kg	
Holloman Table 2	SW8140	S	.	0.014614	ND	0.0688	mg/kg	
Holloman Table 2	SW8140	S	.	0.026847	ND	0.0711	mg/kg	
Holloman Table 2	SW8140	S	.	0.004521	ND	0.0737	mg/kg	

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Disulfoton ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	0.027297	ND	0.0684	mg/kg	

N = 7

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan I -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	.000600	.0006000	DET
Holloman Table 2	SW8080	S	.	.0000736	ND
Holloman Table 2	SW8080	S	.	.0001081	ND
Holloman Table 2	SW8080	S	.	.0000554	ND
Holloman Table 2	SW8080	S	.	.0001089	ND
Holloman Table 2	SW8080	S	.	.0000413	ND
Holloman Table 2	SW8080	S	.001440	.0014400	DET
Holloman Table 2	SW8080	S	.000114	.0001140	DET
Holloman Table 2	SW8080	S	.000282	.0002820	DET
Holloman Table 2	SW8080	S	.000193	.0001930	DET
Holloman Table 2	SW8080	S	.	.0000453	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.000600	mg/kg	
Holloman Table 2	SW8080	.002180	mg/kg	
Holloman Table 2	SW8080	.002150	mg/kg	
Holloman Table 2	SW8080	.002140	mg/kg	
Holloman Table 2	SW8080	.002230	mg/kg	
Holloman Table 2	SW8080	.002280	mg/kg	
Holloman Table 2	SW8080	.002130	mg/kg	KJ
Holloman Table 2	SW8080	.000196	mg/kg	KJ
Holloman Table 2	SW8080	.000286	mg/kg	KJ
Holloman Table 2	SW8080	.000290	mg/kg	KJ
Holloman Table 2	SW8080	.000192	mg/kg	

N = 11

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan II -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	0.001800	0.001800	DET
Holloman Table 2	SW8080	S	0.007340	0.007340	DET
Holloman Table 2	SW8080	S	0.001200	0.001200	DET
Holloman Table 2	SW8080	S	.	0.000192	ND
Holloman Table 2	SW8080	S	0.005190	0.005190	DET
Holloman Table 2	SW8080	S	0.003000	0.003000	DET
Holloman Table 2	SW8080	S	0.002100	0.002100	DET
Holloman Table 2	SW8080	S	0.000229	0.000229	DET
Holloman Table 2	SW8080	S	0.021000	0.021000	DET
Holloman Table 2	SW8080	S	0.013100	0.013100	DET
Holloman Table 2	SW8080	S	0.002270	0.002270	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.001800	mg/kg	
Holloman Table 2	SW8080	.008160	mg/kg	J
Holloman Table 2	SW8080	.008080	mg/kg	KJ
Holloman Table 2	SW8080	.008040	mg/kg	
Holloman Table 2	SW8080	.008380	mg/kg	PJ
Holloman Table 2	SW8080	.008550	mg/kg	KJ
Holloman Table 2	SW8080	.007990	mg/kg	KJ
Holloman Table 2	SW8080	.000734	mg/kg	PJ
Holloman Table 2	SW8080	.001430	mg/kg	Z
Holloman Table 2	SW8080	.001450	mg/kg	Z
Holloman Table 2	SW8080	.000721	mg/kg	

N = 11

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan Sulfate -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00300	.0030000	DET	.00300	mg/kg	
Holloman Table 2	SW8080	S	.00154	.0015400	DET	.00590	mg/kg	KJ
Holloman Table 2	SW8080	S	.	.0012823	ND	.00583	mg/kg	
Holloman Table 2	SW8080	S	.	.0005475	ND	.00581	mg/kg	

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endosulfan Sulfate -----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.0007607	ND	.006050	mg/kg	
Holloman Table 2	SW8080	S	.	.0010367	ND	.006170	mg/kg	
Holloman Table 2	SW8080	S	.	.0007736	ND	.005770	mg/kg	
Holloman Table 2	SW8080	S	.	.0012996	ND	.000571	mg/kg	
Holloman Table 2	SW8080	S	.	.0003815	ND	.001110	mg/kg	
Holloman Table 2	SW8080	S	.	.0010440	ND	.001130	mg/kg	
Holloman Table 2	SW8080	S	.	.0008571	ND	.000561	mg/kg	

N = 11

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.00060	0.00060	DET	.000600	mg/kg	
Holloman Table 2	SW8080	S	0.00132	0.00132	DET	.004350	mg/kg	PJ
Holloman Table 2	SW8080	S	.	0.00009	ND	.007630	mg/kg	
Holloman Table 2	SW8080	S	.	0.00049	ND	.007600	mg/kg	
Holloman Table 2	SW8080	S	0.16100	0.16100	DET	.007910	mg/kg	P
Holloman Table 2	SW8080	S	.	0.00018	ND	.008070	mg/kg	
Holloman Table 2	SW8080	S	0.00516	0.00516	DET	.007550	mg/kg	PJ
Holloman Table 2	SW8080	S	0.00056	0.00056	DET	.000693	mg/kg	KJ
Holloman Table 2	SW8080	S	0.01100	0.01100	DET	.000762	mg/kg	PZ
Holloman Table 2	SW8080	S	0.00657	0.00657	DET	.000773	mg/kg	PZ
Holloman Table 2	SW8080	S	0.01400	0.01400	DET	.000681	mg/kg	

N = 11

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin Aldehyde ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	0.001200	0.001200	DET
Holloman Table 2	SW8080	S	.	0.000005	ND
Holloman Table 2	SW8080	S	.	0.000139	ND
Holloman Table 2	SW8080	S	.	0.000060	ND
Holloman Table 2	SW8080	S	.	0.000223	ND
Holloman Table 2	SW8080	S	0.001130	0.001130	DET
Holloman Table 2	SW8080	S	0.001180	0.001180	DET
Holloman Table 2	SW8080	S	0.000224	0.000224	DET
Holloman Table 2	SW8080	S	0.048600	0.048600	DET
Holloman Table 2	SW8080	S	0.029600	0.029600	DET
Holloman Table 2	SW8080	S	0.004080	0.004080	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.001200	mg/kg	
Holloman Table 2	SW8080	.004080	mg/kg	
Holloman Table 2	SW8080	.004930	mg/kg	
Holloman Table 2	SW8080	.004920	mg/kg	
Holloman Table 2	SW8080	.004190	mg/kg	
Holloman Table 2	SW8080	.005220	mg/kg	KJ
Holloman Table 2	SW8080	.004880	mg/kg	KJ
Holloman Table 2	SW8080	.000448	mg/kg	PJ
Holloman Table 2	SW8080	.000873	mg/kg	Z
Holloman Table 2	SW8080	.000886	mg/kg	Z
Holloman Table 2	SW8080	.000441	mg/kg	P

N = 11

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Endrin Ketone -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.003	.003	DET	.003	mg/kg	

N = 1

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethoprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00157	.00157	DET	.00871	mg/kg	KJ
Holloman Table 2	SW8140	S	.00139	.00139	DET	.00839	mg/kg	KJ
Holloman Table 2	SW8140	S	.00328	.00328	DET	.00855	mg/kg	KJ

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethoprop ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00185	.00185	DET	.00883	mg/kg	KJ
Holloman Table 2	SW8140	S	.00539	.00539	DET	.00916	mg/kg	KJ
Holloman Table 2	SW8140	S	.00339	.00339	DET	.00851	mg/kg	KJ

N = 6

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethyl benzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.014	0.014000	DET	0.12000	mg/kg	J
Holloman Table 2	SW8240	S	.	0.009468	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.006268	ND	0.00211	mg/kg	
Holloman Table 2	SW8240	S	.	0.000306	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.004851	ND	0.00220	mg/kg	
Holloman Table 2	SW8240	S	.	0.005103	ND	0.00225	mg/kg	
Holloman Table 2	SW8240	S	.	0.013197	ND	0.00209	mg/kg	
Holloman Table 2	SW8240	S	.	0.009880	ND	0.00827	mg/kg	
Holloman Table 2	SW8240	S	.	0.002199	ND	0.00373	mg/kg	
Holloman Table 2	SW8240	S	.	0.007695	ND	0.00868	mg/kg	
Holloman Table 2	SW8240	S	.	0.008195	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.013130	ND	0.00175	mg/kg	
Holloman Table 2	SW8240	S	.	0.003166	ND	0.00175	mg/kg	
Holloman Table 2	SW8240	S	.	0.003829	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.013260	ND	0.00167	mg/kg	

N = 15

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ethyl parathion ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.027	0.027	DET	0.027	mg/kg	

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Famphur ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.091	0.091	DET	0.091	mg/kg	

N = 1

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fensulfothion -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.27000	0.27000	DET	0.2700	mg/kg	
Holloman Table 2	SW8140	S	0.00465	0.00465	DET	0.0135	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.00197	ND	0.0142	mg/kg	
Holloman Table 2	SW8140	S	0.00385	0.00385	DET	0.0133	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00456	0.00456	DET	0.0137	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.00176	ND	0.0155	mg/kg	
Holloman Table 2	SW8140	S	0.00539	0.00539	DET	0.0132	mg/kg	KJ

N = 7

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fenthion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00454	.0045400	DET	0.0330	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0002665	ND	0.0326	mg/kg	
Holloman Table 2	SW8140	S	.	.0009041	ND	0.0332	mg/kg	
Holloman Table 2	SW8140	S	.00550	.0055000	DET	0.0335	mg/kg	KJ
Holloman Table 2	SW8140	S	.00177	.0017700	DET	0.0356	mg/kg	PJ
Holloman Table 2	SW8140	S	.00170	.0017000	DET	0.0322	mg/kg	KJ

N = 6

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fluoranthene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	28.9108	ND	70.8	ug/kg	
Holloman Table 2	SW8270	S	55.4	55.4000	DET	75.5	ug/kg	J

N = 2

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Fluorene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	3027.39	ND	55.1	ug/kg	
Holloman Table 2	SW8270	S	3110	3110.00	DET	58.8	ug/kg	

N = 2

-------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	.0006000	.0006000	DET
Holloman Table 2	SW8080	S	.	.0000301	ND
Holloman Table 2	SW8080	S	.	.0000238	ND
Holloman Table 2	SW8080	S	.	.0000068	ND
Holloman Table 2	SW8080	S	.	.0000085	ND
Holloman Table 2	SW8080	S	.0013600	.0013600	DET
Holloman Table 2	SW8080	S	.	.0000210	ND
Holloman Table 2	SW8080	S	.	.0000247	ND
Holloman Table 2	SW8080	S	.0000546	.0000546	DET
Holloman Table 2	SW8080	S	.	.0000039	ND
Holloman Table 2	SW8080	S	.0000344	.0000344	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.000600	mg/kg	
Holloman Table 2	SW8080	.001320	mg/kg	
Holloman Table 2	SW8080	.001300	mg/kg	
Holloman Table 2	SW8080	.001300	mg/kg	
Holloman Table 2	SW8080	.001210	mg/kg	
Holloman Table 2	SW8080	.001380	mg/kg	KJ
Holloman Table 2	SW8080	.001150	mg/kg	
Holloman Table 2	SW8080	.000106	mg/kg	
Holloman Table 2	SW8080	.000206	mg/kg	KJ
Holloman Table 2	SW8080	.000234	mg/kg	
Holloman Table 2	SW8080	.000104	mg/kg	PJ

N = 11

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor epoxide -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	.000600	.00060000	DET
Holloman Table 2	SW8080	S	.000322	.00032200	DET
Holloman Table 2	SW8080	S	.	.00003844	ND
Holloman Table 2	SW8080	S	.000764	.00076400	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.00060	mg/kg	
Holloman Table 2	SW8080	.00109	mg/kg	PJ
Holloman Table 2	SW8080	.00148	mg/kg	
Holloman Table 2	SW8080	.00147	mg/kg	KJ

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Heptachlor epoxide -----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.0060900	.0060900	DET
Holloman Table 2	SW8080	S	.0029800	.0029800	DET
Holloman Table 2	SW8080	S	.0014400	.0014400	DET
Holloman Table 2	SW8080	S	.0000681	.0000681	DET
Holloman Table 2	SW8080	S	.0013100	.0013100	DET
Holloman Table 2	SW8080	S	.0000820	.0000820	DET
Holloman Table 2	SW8080	S	.	.0000467	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.001540	mg/kg	P
Holloman Table 2	SW8080	.001570	mg/kg	P
Holloman Table 2	SW8080	.001460	mg/kg	PJ
Holloman Table 2	SW8080	.000135	mg/kg	KJ
Holloman Table 2	SW8080	.000262	mg/kg	
Holloman Table 2	SW8080	.000266	mg/kg	J
Holloman Table 2	SW8080	.000132	mg/kg	

N = 11

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Hydrocarbons --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	E418.1	S	12.50	12.50	DET	12.5	mg/kg	
Holloman Table 2	E418.1	S	43.80	43.80	DET	34.0	mg/kg	B
Holloman Table 2	E418.1	S	3.68	3.68	DET	33.6	mg/kg	BJ
Holloman Table 2	E418.1	S	7.25	7.25	DET	33.5	mg/kg	BJ
Holloman Table 2	E418.1	S	59.90	59.90	DET	34.9	mg/kg	B
Holloman Table 2	E418.1	S	30.60	30.60	DET	35.6	mg/kg	BJ
Holloman Table 2	E418.1	S	39.30	39.30	DET	33.3	mg/kg	B
Holloman Table 2	E418.1	S	10300.00	10300.00	DET	149.0	mg/kg	B

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Hydrocarbons --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	487.00	487.00	DET	34.1	mg/kg	B
Holloman Table 2	E418.1	S	18900.00	18900.00	DET	319.0	mg/kg	B
Holloman Table 2	E418.1	S	3.24	3.24	DET	33.5	mg/kg	BJ
Holloman Table 2	E418.1	S	16.20	16.20	DET	31.2	mg/kg	BJ
Holloman Table 2	E418.1	S	32.80	32.80	DET	31.2	mg/kg	B
Holloman Table 2	E418.1	S	39.60	39.60	DET	31.4	mg/kg	B
Holloman Table 2	E418.1	S	18.60	18.60	DET	29.8	mg/kg	BJ

N = 15

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPA ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	15.00	15.0000	DET	15.00	mg/kg	
Holloman Table 2	SW8150	S	.	4.6411	ND	8.75	mg/kg	
Holloman Table 2	SW8150	S	5.12	5.1200	DET	8.54	mg/kg	KJ
Holloman Table 2	SW8150	S	.	1.8117	ND	8.48	mg/kg	
Holloman Table 2	SW8150	S	.	0.0581	ND	2.71	mg/kg	
Holloman Table 2	SW8150	S	.	3.9628	ND	2.81	mg/kg	
Holloman Table 2	SW8150	S	.	1.3205	ND	8.45	mg/kg	

N = 7

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=MCPP ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	12	12.0000	DET	12.00	mg/kg	
Holloman Table 2	SW8150	S	.	10.3319	ND	2.46	mg/kg	
Holloman Table 2	SW8150	S	.	0.2770	ND	3.24	mg/kg	
Holloman Table 2	SW8150	S	.	10.7042	ND	2.39	mg/kg	
Holloman Table 2	SW8150	S	.	6.2398	ND	2.49	mg/kg	
Holloman Table 2	SW8150	S	.	6.3563	ND	2.58	mg/kg	
Holloman Table 2	SW8150	S	.	6.4337	ND	2.38	mg/kg	

N = 7

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Merphos B ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0017729	ND	0.0130	mg/kg	
Holloman Table 2	SW8140	S	.	.0019872	ND	0.0125	mg/kg	
Holloman Table 2	SW8140	S	.	.0027565	ND	0.0128	mg/kg	
Holloman Table 2	SW8140	S	.	.0002367	ND	0.0132	mg/kg	
Holloman Table 2	SW8140	S	.00283	.0028300	DET	0.0137	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0012095	ND	0.0127	mg/kg	

N = 6

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methoxychlor --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.00300	0.00300	DET	0.00300	mg/kg	
Holloman Table 2	SW8080	S	.	0.00008	ND	0.01770	mg/kg	
Holloman Table 2	SW8080	S	.	0.00025	ND	0.01750	mg/kg	
Holloman Table 2	SW8080	S	.	0.00019	ND	0.01740	mg/kg	
Holloman Table 2	SW8080	S	.	0.00018	ND	0.01820	mg/kg	
Holloman Table 2	SW8080	S	.	0.00030	ND	0.01850	mg/kg	
Holloman Table 2	SW8080	S	.	0.00012	ND	0.01730	mg/kg	
Holloman Table 2	SW8080	S	0.00034	0.00034	DET	0.00183	mg/kg	KJ
Holloman Table 2	SW8080	S	0.10300	0.10300	DET	0.00310	mg/kg	Z
Holloman Table 2	SW8080	S	0.06340	0.06340	DET	0.00314	mg/kg	Z
Holloman Table 2	SW8080	S	.	0.00003	ND	0.00156	mg/kg	

N = 11

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl azinphos ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.27000	0.27000	DET	0.2700	mg/kg	
Holloman Table 2	SW8140	S	.	0.00124	ND	0.0124	mg/kg	
Holloman Table 2	SW8140	S	.	0.00090	ND	0.0119	mg/kg	
Holloman Table 2	SW8140	S	.	0.00071	ND	0.0121	mg/kg	
Holloman Table 2	SW8140	S	.	0.00086	ND	0.0125	mg/kg	
Holloman Table 2	SW8140	S	0.00289	0.00289	DET	0.0130	mg/kg	PJ
Holloman Table 2	SW8140	S	0.00135	0.00135	DET	0.0121	mg/kg	KJ

N = 7

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl ethyl ketone ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.3	0.30000	DET	2.40000	mg/kg	J
Holloman Table 2	SW8240	S	.	0.12174	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.25035	ND	0.00435	mg/kg	
Holloman Table 2	SW8240	S	.	0.15443	ND	0.00437	mg/kg	
Holloman Table 2	SW8240	S	.	0.02135	ND	0.00452	mg/kg	
Holloman Table 2	SW8240	S	.	0.01054	ND	0.00463	mg/kg	
Holloman Table 2	SW8240	S	.	0.08459	ND	0.00429	mg/kg	
Holloman Table 2	SW8240	S	.	0.29849	ND	0.00762	mg/kg	
Holloman Table 2	SW8240	S	.	0.16148	ND	0.00344	mg/kg	
Holloman Table 2	SW8240	S	.	0.20103	ND	0.00800	mg/kg	
Holloman Table 2	SW8240	S	.	0.20363	ND	0.00174	mg/kg	
Holloman Table 2	SW8240	S	.	0.05668	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.09473	ND	0.00162	mg/kg	
Holloman Table 2	SW8240	S	.	0.04056	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.26511	ND	0.00153	mg/kg	

N = 15

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methyl parathion ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	.0055	.0055000	DET	0.0055	mg/kg	
Holloman Table 2	SW8140	S	.	.0026515	ND	0.0114	mg/kg	
Holloman Table 2	SW8140	S	.	.0006612	ND	0.0110	mg/kg	
Holloman Table 2	SW8140	S	.	.0040477	ND	0.0112	mg/kg	
Holloman Table 2	SW8140	S	.	.0052426	ND	0.0116	mg/kg	
Holloman Table 2	SW8140	S	.	.0017396	ND	0.0120	mg/kg	
Holloman Table 2	SW8140	S	.	.0005115	ND	0.0111	mg/kg	

N = 7

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methylene Chloride -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.20000	1.20000	DET	0.12000	mg/kg	B
Holloman Table 2	SW8240	S	0.00162	0.00162	DET	0.00297	mg/kg	J
Holloman Table 2	SW8240	S	0.00321	0.00321	DET	0.00184	mg/kg	
Holloman Table 2	SW8240	S	0.00617	0.00617	DET	0.00185	mg/kg	
Holloman Table 2	SW8240	S	0.00337	0.00337	DET	0.00191	mg/kg	
Holloman Table 2	SW8240	S	0.00514	0.00514	DET	0.00195	mg/kg	
Holloman Table 2	SW8240	S	0.00282	0.00282	DET	0.00181	mg/kg	
Holloman Table 2	SW8240	S	.	0.00119	ND	0.01310	mg/kg	

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Methylene Chloride -----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0001201	ND	0.00589	mg/kg	
Holloman Table 2	SW8240	S	.	.0007388	ND	0.01370	mg/kg	
Holloman Table 2	SW8240	S	.00122	.0012200	DET	0.00297	mg/kg	J
Holloman Table 2	SW8240	S	.	.0002356	ND	0.00277	mg/kg	
Holloman Table 2	SW8240	S	.	.0005552	ND	0.00277	mg/kg	
Holloman Table 2	SW8240	S	.	.0003520	ND	0.00273	mg/kg	
Holloman Table 2	SW8240	S	.	.0007144	ND	0.00263	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Mevinphos ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0010361	ND	.00622	mg/kg	
Holloman Table 2	SW8140	S	.	.0005603	ND	.00599	mg/kg	
Holloman Table 2	SW8140	S	.	.0014783	ND	.00611	mg/kg	
Holloman Table 2	SW8140	S	.	.0006549	ND	.00631	mg/kg	
Holloman Table 2	SW8140	S	.00368	.0036800	DET	.00654	mg/kg	J
Holloman Table 2	SW8140	S	.	.0012916	ND	.00608	mg/kg	

N = 6

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Naled ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.00431	0.00431	DET	0.0154	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00429	0.00429	DET	0.0148	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00690	0.00690	DET	0.0151	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00488	0.00488	DET	0.0156	mg/kg	KJ
Holloman Table 2	SW8140	S	0.01630	0.01630	DET	0.0162	mg/kg	
Holloman Table 2	SW8140	S	0.00745	0.00745	DET	0.0151	mg/kg	KJ

N = 6

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=PCB-1260 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	0.639	0.639	DET	.00405	mg/kg	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=PCB-1260 ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	0.406	0.406	DET	.00411	mg/kg	

N = 2

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Percent moisture ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	D2216	S	18	18	DET	.	percent	

N = 1

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Phenanthrene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	4750	4750.00	DET	79.2	ug/kg	
Holloman Table 2	SW8270	S	.	414.98	ND	84.6	ug/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Phorate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.02700	0.027000	DET	0.0270	mg/kg	
Holloman Table 2	SW8140	S	.	0.000217	ND	0.0261	mg/kg	
Holloman Table 2	SW8140	S	.	0.000939	ND	0.0251	mg/kg	
Holloman Table 2	SW8140	S	.	0.000529	ND	0.0256	mg/kg	
Holloman Table 2	SW8140	S	.	0.000000	ND	0.0265	mg/kg	
Holloman Table 2	SW8140	S	0.00799	0.007990	DET	0.0239	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00191	0.001910	DET	0.0222	mg/kg	KJ

N = 7

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	211	211	DET	84.9	ug/kg	
Holloman Table 2	SW8270	S	265	265	DET	90.6	ug/kg	

N = 2

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Ronnel ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.055	0.055000	DET	0.0550	mg/kg	
Holloman Table 2	SW8140	S	.	0.009805	ND	0.0142	mg/kg	
Holloman Table 2	SW8140	S	.	0.026798	ND	0.0117	mg/kg	
Holloman Table 2	SW8140	S	.	0.000893	ND	0.0120	mg/kg	
Holloman Table 2	SW8140	S	.	0.043130	ND	0.0124	mg/kg	
Holloman Table 2	SW8140	S	.	0.006033	ND	0.0128	mg/kg	
Holloman Table 2	SW8140	S	.	0.049718	ND	0.0119	mg/kg	

N = 7

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Styrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03412	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.04477	ND	0.00223	mg/kg	
Holloman Table 2	SW8240	S	.	0.02490	ND	0.00225	mg/kg	
Holloman Table 2	SW8240	S	.	0.08914	ND	0.00232	mg/kg	
Holloman Table 2	SW8240	S	.	0.05755	ND	0.00238	mg/kg	
Holloman Table 2	SW8240	S	.	0.03194	ND	0.00221	mg/kg	
Holloman Table 2	SW8240	S	.	0.09081	ND	0.00809	mg/kg	
Holloman Table 2	SW8240	S	.	0.04874	ND	0.00365	mg/kg	
Holloman Table 2	SW8240	S	.	0.08966	ND	0.00849	mg/kg	
Holloman Table 2	SW8240	S	.	0.09460	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.07421	ND	0.00172	mg/kg	
Holloman Table 2	SW8240	S	.	0.03568	ND	0.00172	mg/kg	
Holloman Table 2	SW8240	S	.	0.05384	ND	0.00169	mg/kg	
Holloman Table 2	SW8240	S	.	0.04868	ND	0.00163	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Sulfotepp ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.018	0.018	DET	0.018	mg/kg	

N = 1

---- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Sulprofos (Bolstar) ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0024705	ND	0.0342	mg/kg	
Holloman Table 2	SW8140	S	.	.0032441	ND	0.0329	mg/kg	
Holloman Table 2	SW8140	S	.	.0020840	ND	0.0336	mg/kg	
Holloman Table 2	SW8140	S	.	.0013002	ND	0.0347	mg/kg	
Holloman Table 2	SW8140	S	.00377	.0037700	DET	0.0360	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0029409	ND	0.0334	mg/kg	

N = 6

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tetrachloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07208	ND	0.00539	mg/kg	
Holloman Table 2	SW8240	S	.	0.09897	ND	0.00335	mg/kg	
Holloman Table 2	SW8240	S	.	0.06924	ND	0.00337	mg/kg	
Holloman Table 2	SW8240	S	.	0.05608	ND	0.00348	mg/kg	
Holloman Table 2	SW8240	S	.	0.10900	ND	0.00357	mg/kg	
Holloman Table 2	SW8240	S	.	0.01366	ND	0.00331	mg/kg	
Holloman Table 2	SW8240	S	.	0.04480	ND	0.02370	mg/kg	
Holloman Table 2	SW8240	S	.	0.05936	ND	0.01070	mg/kg	
Holloman Table 2	SW8240	S	.	0.00459	ND	0.02490	mg/kg	
Holloman Table 2	SW8240	S	.	0.07742	ND	0.00541	mg/kg	
Holloman Table 2	SW8240	S	.	0.02563	ND	0.00503	mg/kg	
Holloman Table 2	SW8240	S	.	0.08021	ND	0.00504	mg/kg	
Holloman Table 2	SW8240	S	.	0.04586	ND	0.00497	mg/kg	
Holloman Table 2	SW8240	S	.	0.11597	ND	0.00478	mg/kg	

N = 15

----- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tetrachlorvinphos -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.001290	.0012900	DET	0.0118	mg/kg	J
Holloman Table 2	SW8140	S	.	.0004823	ND	0.0114	mg/kg	
Holloman Table 2	SW8140	S	.	.0002527	ND	0.0116	mg/kg	
Holloman Table 2	SW8140	S	.000703	.0007030	DET	0.0120	mg/kg	KJ
Holloman Table 2	SW8140	S	.001240	.0012400	DET	0.0124	mg/kg	J
Holloman Table 2	SW8140	S	.000963	.0009630	DET	0.0115	mg/kg	J

N = 6

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Thionazin ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.18	0.18	DET	0.18	mg/kg	

N = 1

---------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	.009	.0090000	DET	0.12000	mg/kg	JB
Holloman Table 2	SW8240	S	.	.0062283	ND	0.00193	mg/kg	
Holloman Table 2	SW8240	S	.	.0072754	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	.0083199	ND	0.00199	mg/kg	
Holloman Table 2	SW8240	S	.	.0082780	ND	0.00206	mg/kg	
Holloman Table 2	SW8240	S	.	.0058864	ND	0.00211	mg/kg	
Holloman Table 2	SW8240	S	.	.0060244	ND	0.00196	mg/kg	
Holloman Table 2	SW8240	S	.	.0021099	ND	0.00851	mg/kg	
Holloman Table 2	SW8240	S	.	.0079808	ND	0.00384	mg/kg	
Holloman Table 2	SW8240	S	.	.0042551	ND	0.00893	mg/kg	
Holloman Table 2	SW8240	S	.	.0058401	ND	0.00194	mg/kg	
Holloman Table 2	SW8240	S	.	.0017455	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	.0059819	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	.0041459	ND	0.00178	mg/kg	
Holloman Table 2	SW8240	S	.	.0089065	ND	0.00171	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Toxaph... ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.03	0.030000	DET	0.03000	mg/kg	
Holloman Table 2	SW8080	S	.	0.017615	ND	0.04490	mg/kg	
Holloman Table 2	SW8080	S	.	0.018876	ND	0.04440	mg/kg	
Holloman Table 2	SW8080	S	.	0.019772	ND	0.04420	mg/kg	
Holloman Table 2	SW8080	S	.	0.015784	ND	0.04610	mg/kg	
Holloman Table 2	SW8080	S	.	0.026401	ND	0.04700	mg/kg	
Holloman Table 2	SW8080	S	.	0.028191	ND	0.04390	mg/kg	
Holloman Table 2	SW8080	S	.	0.019699	ND	0.00404	mg/kg	
Holloman Table 2	SW8080	S	.	0.014831	ND	0.00786	mg/kg	
Holloman Table 2	SW8080	S	.	0.018234	ND	0.00797	mg/kg	
Holloman Table 2	SW8080	S	.	0.027100	ND	0.00397	mg/kg	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=Tribromomethane(Bromoform)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07032	ND	0.00172	mg/kg	
Holloman Table 2	SW8240	S	.	0.08514	ND	0.00231	mg/kg	
Holloman Table 2	SW8240	S	.	0.09828	ND	0.00233	mg/kg	
Holloman Table 2	SW8240	S	.	0.06268	ND	0.00241	mg/kg	
Holloman Table 2	SW8240	S	.	0.08238	ND	0.00246	mg/kg	
Holloman Table 2	SW8240	S	.	0.08260	ND	0.00228	mg/kg	
Holloman Table 2	SW8240	S	.	0.01889	ND	0.00756	mg/kg	
Holloman Table 2	SW8240	S	.	0.09816	ND	0.00341	mg/kg	
Holloman Table 2	SW8240	S	.	0.04539	ND	0.00794	mg/kg	
Holloman Table 2	SW8240	S	.	0.11406	ND	0.00172	mg/kg	
Holloman Table 2	SW8240	S	.	0.00373	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.08769	ND	0.00160	mg/kg	
Holloman Table 2	SW8240	S	.	0.02733	ND	0.00158	mg/kg	
Holloman Table 2	SW8240	S	.	0.05993	ND	0.00152	mg/kg	

N = 15

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Trichloroethene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02698	ND	0.00551	mg/kg	
Holloman Table 2	SW8240	S	.	0.00754	ND	0.00370	mg/kg	
Holloman Table 2	SW8240	S	.	0.08160	ND	0.00372	mg/kg	

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Trichloroethene ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.11630	ND	0.00384	mg/kg	
Holloman Table 2	SW8240	S	.	0.06445	ND	0.00394	mg/kg	
Holloman Table 2	SW8240	S	.	0.00090	ND	0.00365	mg/kg	
Holloman Table 2	SW8240	S	.	0.05339	ND	0.02430	mg/kg	
Holloman Table 2	SW8240	S	.	0.09125	ND	0.01100	mg/kg	
Holloman Table 2	SW8240	S	.	0.05622	ND	0.02550	mg/kg	
Holloman Table 2	SW8240	S	.	0.00147	ND	0.00553	mg/kg	
Holloman Table 2	SW8240	S	.	0.08518	ND	0.00515	mg/kg	
Holloman Table 2	SW8240	S	.	0.00600	ND	0.00515	mg/kg	
Holloman Table 2	SW8240	S	.	0.07864	ND	0.00508	mg/kg	
Holloman Table 2	SW8240	S	.	0.00558	ND	0.00489	mg/kg	

N = 15

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Vinyl Chloride -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.24	0.24000	DET	0.24000	mg/kg	
Holloman Table 2	SW8240	S	.	0.20523	ND	0.00235	mg/kg	
Holloman Table 2	SW8240	S	.	0.05449	ND	0.00375	mg/kg	
Holloman Table 2	SW8240	S	.	0.10026	ND	0.00377	mg/kg	
Holloman Table 2	SW8240	S	.	0.22951	ND	0.00390	mg/kg	
Holloman Table 2	SW8240	S	.	0.02660	ND	0.00399	mg/kg	
Holloman Table 2	SW8240	S	.	0.03106	ND	0.00370	mg/kg	
Holloman Table 2	SW8240	S	.	0.00732	ND	0.01030	mg/kg	
Holloman Table 2	SW8240	S	.	0.16489	ND	0.00466	mg/kg	
Holloman Table 2	SW8240	S	.	0.18953	ND	0.01080	mg/kg	
Holloman Table 2	SW8240	S	.	0.21058	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.19069	ND	0.00219	mg/kg	
Holloman Table 2	SW8240	S	.	0.20286	ND	0.00219	mg/kg	
Holloman Table 2	SW8240	S	.	0.09094	ND	0.00216	mg/kg	
Holloman Table 2	SW8240	S	.	0.10209	ND	0.00208	mg/kg	

N = 15

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Vinyl acetate -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.01365	ND	0.01240	mg/kg	
Holloman Table 2	SW8240	S	.	0.11215	ND	0.00342	mg/kg	

------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=Vinyl acetate -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.063213	ND	0.00344	mg/kg	
Holloman Table 2	SW8240	S	.	0.052729	ND	0.00355	mg/kg	
Holloman Table 2	SW8240	S	.	0.072080	ND	0.00364	mg/kg	
Holloman Table 2	SW8240	S	.	0.011386	ND	0.00337	mg/kg	
Holloman Table 2	SW8240	S	.	0.044760	ND	0.05480	mg/kg	
Holloman Table 2	SW8240	S	.	0.070227	ND	0.02470	mg/kg	
Holloman Table 2	SW8240	S	.	0.000300	ND	0.05750	mg/kg	
Holloman Table 2	SW8240	S	.	0.061911	ND	0.01250	mg/kg	
Holloman Table 2	SW8240	S	.	0.027285	ND	0.01160	mg/kg	
Holloman Table 2	SW8240	S	.	0.086050	ND	0.01160	mg/kg	
Holloman Table 2	SW8240	S	.	0.093417	ND	0.01150	mg/kg	
Holloman Table 2	SW8240	S	.	0.077733	ND	0.01100	mg/kg	

N = 15

------ SWMUs Group=118/132/AOC-A Method=Organics Analyte=Xylene (total) -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.077	0.077000	DET	0.12000	mg/kg	JB
Holloman Table 2	SW8240	S	.	0.018352	ND	0.00413	mg/kg	
Holloman Table 2	SW8240	S	.	0.054156	ND	0.00430	mg/kg	
Holloman Table 2	SW8240	S	.	0.063217	ND	0.00432	mg/kg	
Holloman Table 2	SW8240	S	.	0.036845	ND	0.00447	mg/kg	
Holloman Table 2	SW8240	S	.	0.051156	ND	0.00457	mg/kg	
Holloman Table 2	SW8240	S	.	0.018684	ND	0.00424	mg/kg	
Holloman Table 2	SW8240	S	.	0.059446	ND	0.01820	mg/kg	
Holloman Table 2	SW8240	S	.	0.003156	ND	0.00821	mg/kg	
Holloman Table 2	SW8240	S	.	0.014357	ND	0.01910	mg/kg	
Holloman Table 2	SW8240	S	.	0.044306	ND	0.00415	mg/kg	
Holloman Table 2	SW8240	S	.	0.006744	ND	0.00386	mg/kg	
Holloman Table 2	SW8240	S	.	0.069204	ND	0.00386	mg/kg	
Holloman Table 2	SW8240	S	.	0.036601	ND	0.00381	mg/kg	
Holloman Table 2	SW8240	S	.	0.075972	ND	0.00366	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=alpha-BHC ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	.0006	.0006000	DET
Holloman Table 2	SW8080	S	.	.0002119	ND
Holloman Table 2	SW8080	S	.	.0001596	ND
Holloman Table 2	SW8080	S	.	.0000641	ND
Holloman Table 2	SW8080	S	.	.0001139	ND
Holloman Table 2	SW8080	S	.	.0002124	ND
Holloman Table 2	SW8080	S	.0045	.0045000	DET
Holloman Table 2	SW8080	S	.	.0000832	ND
Holloman Table 2	SW8080	S	.	.0000603	ND
Holloman Table 2	SW8080	S	.	.0001304	ND
Holloman Table 2	SW8080	S	.	.0002307	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.0006000	mg/kg	
Holloman Table 2	SW8080	.0009070	mg/kg	
Holloman Table 2	SW8080	.0008970	mg/kg	
Holloman Table 2	SW8080	.0008940	mg/kg	
Holloman Table 2	SW8080	.0009310	mg/kg	
Holloman Table 2	SW8080	.0009500	mg/kg	
Holloman Table 2	SW8080	.0008880	mg/kg	
Holloman Table 2	SW8080	.0000815	mg/kg	
Holloman Table 2	SW8080	.0001590	mg/kg	
Holloman Table 2	SW8080	.0001610	mg/kg	
Holloman Table 2	SW8080	.0000801	mg/kg	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=beta-BHC ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0006	.00060000	DET	0.0006	mg/kg	
Holloman Table 2	SW8080	S	.	.00020166	ND	0.0218	mg/kg	
Holloman Table 2	SW8080	S	.	.00031807	ND	0.0215	mg/kg	
Holloman Table 2	SW8080	S	.	.00059114	ND	0.0214	mg/kg	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=beta-BHC ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.00044716	ND	0.02230	mg/kg	
Holloman Table 2	SW8080	S	.	.00049780	ND	0.02280	mg/kg	
Holloman Table 2	SW8080	S	.	.00043020	ND	0.02130	mg/kg	
Holloman Table 2	SW8080	S	.	.00003772	ND	0.00196	mg/kg	
Holloman Table 2	SW8080	S	.	.00045874	ND	0.00381	mg/kg	
Holloman Table 2	SW8080	S	.	.00040772	ND	0.00387	mg/kg	
Holloman Table 2	SW8080	S	.	.00051557	ND	0.00192	mg/kg	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=bis(2-Ethylhexyl)phthalate

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	69.7657	ND	319	ug/kg	
Holloman Table 2	SW8270	S	87.7	87.7000	DET	340	ug/kg	J

N = 2

-- SWMUs Group=118/132/AOC-A Method=Organics Analyte=cis-1,3-Dichloropropene --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08969	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.07694	ND	0.00113	mg/kg	
Holloman Table 2	SW8240	S	.	0.04470	ND	0.00113	mg/kg	
Holloman Table 2	SW8240	S	.	0.05338	ND	0.00117	mg/kg	
Holloman Table 2	SW8240	S	.	0.03682	ND	0.00120	mg/kg	
Holloman Table 2	SW8240	S	.	0.01156	ND	0.00111	mg/kg	
Holloman Table 2	SW8240	S	.	0.09253	ND	0.00803	mg/kg	
Holloman Table 2	SW8240	S	.	0.08597	ND	0.00362	mg/kg	
Holloman Table 2	SW8240	S	.	0.06513	ND	0.00843	mg/kg	
Holloman Table 2	SW8240	S	.	0.10952	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.01922	ND	0.00170	mg/kg	
Holloman Table 2	SW8240	S	.	0.01559	ND	0.00170	mg/kg	
Holloman Table 2	SW8240	S	.	0.08627	ND	0.00168	mg/kg	
Holloman Table 2	SW8240	S	.	0.01284	ND	0.00162	mg/kg	

N = 15

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=delta-BHC ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman 29 Sites	SW8080	S	0.000600	0.000600	DET
Holloman Table 2	SW8080	S	.	0.000137	ND
Holloman Table 2	SW8080	S	.	0.000472	ND
Holloman Table 2	SW8080	S	.	0.000225	ND
Holloman Table 2	SW8080	S	0.060500	0.060500	DET
Holloman Table 2	SW8080	S	.	0.000514	ND
Holloman Table 2	SW8080	S	0.009880	0.009880	DET
Holloman Table 2	SW8080	S	0.000634	0.000634	DET
Holloman Table 2	SW8080	S	0.001690	0.001690	DET
Holloman Table 2	SW8080	S	0.002140	0.002140	DET
Holloman Table 2	SW8080	S	.	0.000470	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	.0006000	mg/kg	
Holloman Table 2	SW8080	.0008620	mg/kg	
Holloman Table 2	SW8080	.0008080	mg/kg	
Holloman Table 2	SW8080	.0008490	mg/kg	
Holloman Table 2	SW8080	.0008380	mg/kg	P
Holloman Table 2	SW8080	.0009020	mg/kg	
Holloman Table 2	SW8080	.0007990	mg/kg	
Holloman Table 2	SW8080	.0000734	mg/kg	
Holloman Table 2	SW8080	.0001430	mg/kg	
Holloman Table 2	SW8080	.0001450	mg/kg	
Holloman Table 2	SW8080	.0000721	mg/kg	

N = 11

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=gamma-BHC ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0006	.00060000	DET	.00060	mg/kg	
Holloman Table 2	SW8080	S	.	.00025530	ND	.00104	mg/kg	
Holloman Table 2	SW8080	S	.	.00004375	ND	.00103	mg/kg	
Holloman Table 2	SW8080	S	.	.00002961	ND	.00103	mg/kg	

--------- SWMUs Group=118/132/AOC-A Method=Organics Analyte=gamma-BHC ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.0001001	ND
Holloman Table 2	SW8080	S	.004360	.0043600	DET
Holloman Table 2	SW8080	S	.	.0000507	ND
Holloman Table 2	SW8080	S	.000344	.0003440	DET
Holloman Table 2	SW8080	S	.	.0000918	ND
Holloman Table 2	SW8080	S	.	.0002801	ND
Holloman Table 2	SW8080	S	.	.0003050	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.0010700	mg/kg	
Holloman Table 2	SW8080	.0010900	mg/kg	
Holloman Table 2	SW8080	.0010200	mg/kg	
Holloman Table 2	SW8080	.0000938	mg/kg	
Holloman Table 2	SW8080	.0003100	mg/kg	
Holloman Table 2	SW8080	.0003140	mg/kg	
Holloman Table 2	SW8080	.0000921	mg/kg	

N = 11

SWMUs Group=118/132/AOC-A Method=Organics Analyte=o,o,o-Triethylphosphorthioate

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.18	0.18	DET	0.18	mg/kg	

N = 1

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,2-Dichloroethene --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03750	ND	0.00264	mg/kg	
Holloman Table 2	SW8240	S	.	0.05463	ND	0.00356	mg/kg	
Holloman Table 2	SW8240	S	.	0.02626	ND	0.00359	mg/kg	
Holloman Table 2	SW8240	S	.	0.08799	ND	0.00371	mg/kg	
Holloman Table 2	SW8240	S	.	0.02997	ND	0.00379	mg/kg	
Holloman Table 2	SW8240	S	.	0.04682	ND	0.00352	mg/kg	
Holloman Table 2	SW8240	S	.	0.01401	ND	0.01160	mg/kg	
Holloman Table 2	SW8240	S	.	0.00094	ND	0.00525	mg/kg	
Holloman Table 2	SW8240	S	.	0.07931	ND	0.01220	mg/kg	

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,2-Dichloroethene -- (continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.020541	ND	.00265	mg/kg	
Holloman Table 2	SW8240	S	.	0.049069	ND	.00247	mg/kg	
Holloman Table 2	SW8240	S	.	0.037888	ND	.00247	mg/kg	
Holloman Table 2	SW8240	S	.	0.013438	ND	.00244	mg/kg	
Holloman Table 2	SW8240	S	.	0.053798	ND	.00234	mg/kg	

N = 15

- SWMUs Group=118/132/AOC-A Method=Organics Analyte=trans-1,3-Dichloropropene -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.04984	ND	0.00197	mg/kg	
Holloman Table 2	SW8240	S	.	0.04094	ND	0.00164	mg/kg	
Holloman Table 2	SW8240	S	.	0.11457	ND	0.00165	mg/kg	
Holloman Table 2	SW8240	S	.	0.01647	ND	0.00170	mg/kg	
Holloman Table 2	SW8240	S	.	0.04268	ND	0.00174	mg/kg	
Holloman Table 2	SW8240	S	.	0.03421	ND	0.00162	mg/kg	
Holloman Table 2	SW8240	S	.	0.04226	ND	0.00868	mg/kg	
Holloman Table 2	SW8240	S	.	0.02022	ND	0.00392	mg/kg	
Holloman Table 2	SW8240	S	.	0.00500	ND	0.00911	mg/kg	
Holloman Table 2	SW8240	S	.	0.07569	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.07362	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.09060	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.01232	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.06695	ND	0.00175	mg/kg	

N = 15

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Antimony ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	20	20	DET	20	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Arsenic ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7060	S	1.5	1.5	DET	1.5	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Beryllium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	0.4	0.4	DET	0.4	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	1	1	DET	1	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	3.3	3.3	DET	2	mg/kg	@

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Copper ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	4	4	DET	4	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7421	S	1.500	1.500	DET	0.2800	mg/kg	
Holloman Table 2	SW7421	S	7.680	7.680	DET	0.2060	mg/kg	S
Holloman Table 2	SW7421	S	4.610	4.610	DET	0.2110	mg/kg	S
Holloman Table 2	SW7421	S	9.870	9.870	DET	0.3970	mg/kg	S
Holloman Table 2	SW7421	S	4.110	4.110	DET	0.4030	mg/kg	B
Holloman Table 2	SW7421	S	6.940	6.940	DET	0.3120	mg/kg	S
Holloman Table 2	SW7421	S	4.900	4.900	DET	0.1530	mg/kg	S
Holloman Table 2	SW7421	S	4.730	4.730	DET	0.1410	mg/kg	S
Holloman Table 2	SW7421	S	1.240	1.240	DET	0.1380	mg/kg	S
Holloman Table 2	SW7421	S	4.950	4.950	DET	0.1300	mg/kg	SB
Holloman Table 2	SW7421	S	1.440	1.440	DET	0.1370	mg/kg	SB
Holloman Table 2	SW7421	S	4.990	4.990	DET	0.1260	mg/kg	S
Holloman Table 2	SW7421	S	0.441	0.441	DET	0.1280	mg/kg	S
Holloman Table 2	SW7421	S	3.280	3.280	DET	0.0684	mg/kg	SB
Holloman Table 2	SW7421	S	0.495	0.495	DET	0.0609	mg/kg	SB
Holloman Table 2	SW7421	S	4.270	4.270	DET	0.1300	mg/kg	SB
Holloman Table 2	SW7421	S	2.110	2.110	DET	0.0647	mg/kg	SB
Holloman Table 2	SW7421	S	7.070	7.070	DET	0.2070	mg/kg	SB
Holloman Table 2	SW7421	S	3.950	3.950	DET	0.0907	mg/kg	SB
Holloman Table 2	SW7421	S	2.290	2.290	DET	0.0655	mg/kg	
Holloman Table 2	SW7421	S	3.060	3.060	DET	0.0696	mg/kg	
Holloman Table 2	SW7421	S	3.230	3.230	DET	0.0592	mg/kg	
Holloman Table 2	SW7421	S	1.850	1.850	DET	0.0538	mg/kg	
Holloman Table 2	SW7421	S	4.290	4.290	DET	0.0703	mg/kg	
Holloman Table 2	SW7421	S	4.710	4.710	DET	0.0624	mg/kg	

N = 25

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7471	S	0.056	0.056	DET	0.056	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Nickel ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	4	4	DET	4	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7740	S	0.47	0.47	DET	0.47	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	2	2	DET	2	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Thallium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	20	20	DET	20	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	13	13	DET	4	mg/kg	@

N = 1

------ SWMUs Group=129/178 Method=Organics Analyte=1,1,1-Trichloroethane ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00033	ND	0.00269	mg/kg	
Holloman Table 2	SW8240	S	.	0.03149	ND	0.00279	mg/kg	
Holloman Table 2	SW8240	S	.	0.11354	ND	0.00263	mg/kg	
Holloman Table 2	SW8240	S	.	0.07909	ND	0.00199	mg/kg	
Holloman Table 2	SW8240	S	.	0.03945	ND	0.00264	mg/kg	
Holloman Table 2	SW8240	S	.	0.04766	ND	0.00274	mg/kg	

N = 7

---- SW. .up=129/178 Method=Organics Analyte=1,1,2,2-Tetrachloroethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.06011	ND	0.00432	mg/kg	
Holloman Table 2	SW8240	S	.	0.09491	ND	0.00449	mg/kg	
Holloman Table 2	SW8240	S	.	0.11175	ND	0.00423	mg/kg	
Holloman Table 2	SW8240	S	.	0.10181	ND	0.00542	mg/kg	
Holloman Table 2	SW8240	S	.	0.06622	ND	0.00566	mg/kg	
Holloman Table 2	SW8240	S	.	0.02951	ND	0.00588	mg/kg	

N = 7

------ SWMUs Group=129/178 Method=Organics Analyte=1,1,2-Trichloroethane ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02529	ND	0.00100	mg/kg	
Holloman Table 2	SW8240	S	.	0.03449	ND	0.00104	mg/kg	
Holloman Table 2	SW8240	S	.	0.06272	ND	0.00098	mg/kg	
Holloman Table 2	SW8240	S	.	0.02359	ND	0.00163	mg/kg	
Holloman Table 2	SW8240	S	.	0.00198	ND	0.00124	mg/kg	
Holloman Table 2	SW8240	S	.	0.01819	ND	0.00129	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=1,1-Dichloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08407	ND	0.00209	mg/kg	
Holloman Table 2	SW8240	S	.	0.09405	ND	0.00217	mg/kg	
Holloman Table 2	SW8240	S	.	0.11418	ND	0.00204	mg/kg	
Holloman Table 2	SW8240	S	.	0.03487	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.09215	ND	0.00288	mg/kg	
Holloman Table 2	SW8240	S	.	0.10070	ND	0.00299	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=1,1-Dichloroe. .e --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.11741	ND	0.00331	mg/kg	
Holloman Table 2	SW8240	S	.	0.10373	ND	0.00343	mg/kg	
Holloman Table 2	SW8240	S	.	0.10543	ND	0.00324	mg/kg	
Holloman Table 2	SW8240	S	.	0.09116	ND	0.00274	mg/kg	
Holloman Table 2	SW8240	S	.	0.00563	ND	0.00300	mg/kg	
Holloman Table 2	SW8240	S	.	0.02437	ND	0.00312	mg/kg	

N = 7

----- SWMUs Group=129/178 Method=Organics Analyte=1,2,4-Trichlorobenzene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	293.192	ND	35.4	ug/kg	
Holloman Table 2	SW8270	S	.	469.979	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	306.707	ND	34.5	ug/kg	
Holloman Table 2	SW8270	S	.	160.634	ND	36.7	ug/kg	
Holloman Table 2	SW8270	S	.	76.742	ND	36.6	ug/kg	
Holloman Table 2	SW8270	S	.	48.268	ND	38.3	ug/kg	
Holloman Table 2	SW8270	S	.	249.722	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	552.119	ND	39.9	ug/kg	
Holloman Table 2	SW8270	S	.	473.599	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	447.085	ND	40.3	ug/kg	
Holloman Table 2	SW8270	S	.	30.978	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	237.409	ND	40.2	ug/kg	
Holloman Table 2	SW8270	S	.	466.753	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	283.775	ND	39.8	ug/kg	
Holloman Table 2	SW8270	S	.	37.441	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	524.814	ND	39.5	ug/kg	
Holloman Table 2	SW8270	S	.	150.353	ND	18.9	ug/kg	
Holloman Table 2	SW8270	S	.	140.424	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	222.139	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	559.804	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	144.415	ND	18.5	ug/kg	
Holloman Table 2	SW8270	S	.	601.349	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	530.671	ND	19.1	ug/kg	
Holloman Table 2	SW8270	S	.	171.528	ND	18.6	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=1,2-Dichlorobenzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	308.579	ND	29.9	ug/kg	
Holloman Table 2	SW8270	S	.	180.838	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	126.307	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	115.091	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	333.394	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	301.325	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	439.603	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	269.170	ND	33.8	ug/kg	
Holloman Table 2	SW8270	S	.	165.101	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	523.506	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	.	439.857	ND	29.9	ug/kg	
Holloman Table 2	SW8270	S	.	407.173	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	398.124	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	53.929	ND	33.7	ug/kg	
Holloman Table 2	SW8270	S	.	567.103	ND	30.1	ug/kg	
Holloman Table 2	SW8270	S	.	609.493	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	130.736	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	485.204	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	163.110	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	25.631	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	236.754	ND	25.9	ug/kg	
Holloman Table 2	SW8270	S	.	202.412	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	14.824	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	352.031	ND	25.9	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=1,2-Dichloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.05182	ND	0.00105	mg/kg	
Holloman Table 2	SW8240	S	.	0.04411	ND	0.00109	mg/kg	
Holloman Table 2	SW8240	S	.	0.06519	ND	0.00103	mg/kg	
Holloman Table 2	SW8240	S	.	0.09627	ND	0.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.00119	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.01080	ND	0.00168	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=1,2-Dichloropropane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03685	ND	0.00179	mg/kg	
Holloman Table 2	SW8240	S	.	0.08376	ND	0.00185	mg/kg	
Holloman Table 2	SW8240	S	.	0.09379	ND	0.00175	mg/kg	
Holloman Table 2	SW8240	S	.	0.09299	ND	0.00280	mg/kg	
Holloman Table 2	SW8240	S	.	0.11028	ND	0.00131	mg/kg	
Holloman Table 2	SW8240	S	.	0.09428	ND	0.00137	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=1,3-Dichlorobenzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	260.010	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	204.977	ND	19.0	ug/kg	
Holloman Table 2	SW8270	S	.	390.422	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	497.027	ND	18.9	ug/kg	
Holloman Table 2	SW8270	S	.	10.045	ND	18.8	ug/kg	
Holloman Table 2	SW8270	S	.	592.883	ND	19.7	ug/kg	
Holloman Table 2	SW8270	S	.	344.571	ND	17.9	ug/kg	
Holloman Table 2	SW8270	S	.	507.910	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	327.758	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	299.098	ND	20.7	ug/kg	
Holloman Table 2	SW8270	S	.	506.630	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	468.538	ND	20.7	ug/kg	
Holloman Table 2	SW8270	S	.	95.990	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	117.651	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	604.670	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	240.246	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	304.371	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	414.842	ND	22.3	ug/kg	
Holloman Table 2	SW8270	S	.	173.353	ND	22.8	ug/kg	
Holloman Table 2	SW8270	S	.	252.408	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	430.306	ND	23.6	ug/kg	
Holloman Table 2	SW8270	S	.	469.660	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	449.528	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	414.347	ND	23.6	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=1,4-Dichlorobenzene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	477.833	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	244.250	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	.	525.041	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	164.161	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	364.417	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	218.501	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	368.784	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	523.654	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	578.982	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	133.684	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	.	154.438	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	275.541	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	13.868	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	281.855	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	512.264	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	282.711	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	70.581	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	179.030	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	179.893	ND	29.9	ug/kg	
Holloman Table 2	SW8270	S	.	155.246	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	495.743	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	205.961	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	230.245	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	353.835	ND	30.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=2,4,5-T ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.012	0.012	DET	0.012	mg/kg	

N = 1

-------- SWMUs Group=129/178 Method=Organics Analyte=2,4,5-TP (Silvex) --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.01	0.01	DET	0.01	mg/kg	

N = 1

------ SWMUs Group=129/178 Method=Organics Analyte=2,4,5-Trichloropnenol ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	454.416	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	4.514	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	386.248	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	435.074	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	599.666	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	519.218	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	340.270	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	608.493	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	575.115	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	544.889	ND	32.3	ug/kg	
Holloman Table 2	SW8270	S	.	179.499	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	.	427.679	ND	32.3	ug/kg	
Holloman Table 2	SW8270	S	.	337.286	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	176.141	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	457.294	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	590.577	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	134.237	ND	23.6	ug/kg	
Holloman Table 2	SW8270	S	.	150.109	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	491.916	ND	22.5	ug/kg	
Holloman Table 2	SW8270	S	.	23.821	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	507.296	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	478.847	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	407.521	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	196.640	ND	23.2	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=2,4,6-Trichlorophenol ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	42.717	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	276.497	ND	21.3	ug/kg	
Holloman Table 2	SW8270	S	.	541.986	ND	19.9	ug/kg	
Holloman Table 2	SW8270	S	.	424.820	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	329.537	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	240.413	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	360.677	ND	20.1	ug/kg	
Holloman Table 2	SW8270	S	.	576.132	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	.	25.762	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	79.147	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	470.577	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	296.127	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	368.715	ND	20.2	ug/kg	

------ SWMUs Group=129/178 Method=Organics Analyte=2,4,6-Trichlorophenol ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	136.287	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	.	606.821	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	505.386	ND	22.8	ug/kg	
Holloman Table 2	SW8270	S	.	54.509	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	108.736	ND	26.1	ug/kg	
Holloman Table 2	SW8270	S	.	559.673	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	38.603	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	.	17.287	ND	27.6	ug/kg	
Holloman Table 2	SW8270	S	.	49.914	ND	25.9	ug/kg	
Holloman Table 2	SW8270	S	.	90.492	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	328.356	ND	27.6	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=2,4-D ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.074	0.074	DET	0.074	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=2,4-DB ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.056	0.056	DET	0.056	mg/kg	

N = 1

------- SWMUs Group=129/178 Method=Organics Analyte=2,4-Dichlorophenol --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.00	ug/kg	
Holloman Table 2	SW8270	S	.	232.223	ND	9.14	ug/kg	
Holloman Table 2	SW8270	S	.	139.665	ND	9.52	ug/kg	
Holloman Table 2	SW8270	S	.	405.758	ND	8.91	ug/kg	
Holloman Table 2	SW8270	S	.	2.955	ND	9.47	ug/kg	
Holloman Table 2	SW8270	S	.	63.438	ND	9.46	ug/kg	
Holloman Table 2	SW8270	S	.	0.726	ND	9.88	ug/kg	

------- SWMUs Group=129/178 Method=Organics Analyte=2,4-Dichlorophenol --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	91.970	ND	9.00	ug/kg	
Holloman Table 2	SW8270	S	.	336.342	ND	10.30	ug/kg	
Holloman Table 2	SW8270	S	.	485.165	ND	9.04	ug/kg	
Holloman Table 2	SW8270	S	.	486.936	ND	10.40	ug/kg	
Holloman Table 2	SW8270	S	.	131.442	ND	9.12	ug/kg	
Holloman Table 2	SW8270	S	.	574.830	ND	10.40	ug/kg	
Holloman Table 2	SW8270	S	.	283.928	ND	9.05	ug/kg	
Holloman Table 2	SW8270	S	.	14.334	ND	10.30	ug/kg	
Holloman Table 2	SW8270	S	.	180.763	ND	9.19	ug/kg	
Holloman Table 2	SW8270	S	.	117.426	ND	10.20	ug/kg	
Holloman Table 2	SW8270	S	.	542.696	ND	37.40	ug/kg	
Holloman Table 2	SW8270	S	.	4.335	ND	34.70	ug/kg	
Holloman Table 2	SW8270	S	.	190.229	ND	35.60	ug/kg	
Holloman Table 2	SW8270	S	.	560.409	ND	36.20	ug/kg	
Holloman Table 2	SW8270	S	.	473.676	ND	36.70	ug/kg	
Holloman Table 2	SW8270	S	.	468.730	ND	34.50	ug/kg	
Holloman Table 2	SW8270	S	.	222.165	ND	37.80	ug/kg	
Holloman Table 2	SW8270	S	.	521.177	ND	36.70	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=2,4-Dimethylphenol --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	342.410	ND	35.7	ug/kg	
Holloman Table 2	SW8270	S	.	264.979	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	568.742	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	305.513	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	101.095	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	560.325	ND	38.6	ug/kg	
Holloman Table 2	SW8270	S	.	18.463	ND	35.1	ug/kg	
Holloman Table 2	SW8270	S	.	23.246	ND	40.2	ug/kg	
Holloman Table 2	SW8270	S	.	116.104	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	150.253	ND	40.6	ug/kg	
Holloman Table 2	SW8270	S	.	273.997	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	588.125	ND	40.5	ug/kg	
Holloman Table 2	SW8270	S	.	15.598	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	6.870	ND	40.1	ug/kg	
Holloman Table 2	SW8270	S	.	157.549	ND	35.9	ug/kg	
Holloman Table 2	SW8270	S	.	222.308	ND	39.8	ug/kg	
Holloman Table 2	SW8270	S	.	32.809	ND	34.7	ug/kg	
Holloman Table 2	SW8270	S	.	333.689	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	472.014	ND	33.0	ug/kg	

------- S. Group=129/178 Method=Organics Analyte=2,4-Dimethylphenol --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	417.121	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	279.690	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	293.936	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	468.367	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	261.575	ND	34.0	ug/kg	

N = 25

-------- SWMUs Group=129/178 Method=Organics Analyte=2,4-Dinitrophenol --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100.0	ug/kg	
Holloman Table 2	SW8270	S	.	1862.32	ND	113.0	ug/kg	
Holloman Table 2	SW8270	S	.	1274.29	ND	118.0	ug/kg	
Holloman Table 2	SW8270	S	.	2551.26	ND	110.0	ug/kg	
Holloman Table 2	SW8270	S	.	2283.04	ND	117.0	ug/kg	
Holloman Table 2	SW8270	S	.	2625.85	ND	117.0	ug/kg	
Holloman Table 2	SW8270	S	.	32.28	ND	122.0	ug/kg	
Holloman Table 2	SW8270	S	.	2111.34	ND	112.0	ug/kg	
Holloman Table 2	SW8270	S	.	1947.46	ND	128.0	ug/kg	
Holloman Table 2	SW8270	S	.	2340.21	ND	112.0	ug/kg	
Holloman Table 2	SW8270	S	.	2553.41	ND	129.0	ug/kg	
Holloman Table 2	SW8270	S	.	2245.37	ND	113.0	ug/kg	
Holloman Table 2	SW8270	S	.	2995.25	ND	129.0	ug/kg	
Holloman Table 2	SW8270	S	.	2649.23	ND	112.0	ug/kg	
Holloman Table 2	SW8270	S	.	968.85	ND	127.0	ug/kg	
Holloman Table 2	SW8270	S	.	2294.05	ND	114.0	ug/kg	
Holloman Table 2	SW8270	S	.	2602.49	ND	126.0	ug/kg	
Holloman Table 2	SW8270	S	.	1987.50	ND	48.1	ug/kg	
Holloman Table 2	SW8270	S	.	1839.55	ND	44.6	ug/kg	
Holloman Table 2	SW8270	S	.	160.01	ND	45.8	ug/kg	
Holloman Table 2	SW8270	S	.	127.27	ND	46.6	ug/kg	
Holloman Table 2	SW8270	S	.	2848.29	ND	47.2	ug/kg	
Holloman Table 2	SW8270	S	.	3037.66	ND	44.4	ug/kg	
Holloman Table 2	SW8270	S	.	1481.87	ND	48.6	ug/kg	
Holloman Table 2	SW8270	S	.	1474.65	ND	47.3	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=2,4-Dinitroto -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	476.378	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	359.764	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	11.967	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	.	347.978	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	.	421.209	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	.	558.929	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	298.868	ND	20.0	ug/kg	
Holloman Table 2	SW8270	S	.	189.677	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	235.921	ND	20.1	ug/kg	
Holloman Table 2	SW8270	S	.	212.291	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	419.806	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	279.239	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	261.718	ND	20.1	ug/kg	
Holloman Table 2	SW8270	S	.	179.004	ND	22.8	ug/kg	
Holloman Table 2	SW8270	S	.	34.363	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	295.258	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	109.618	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	512.073	ND	27.3	ug/kg	
Holloman Table 2	SW8270	S	.	380.789	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	426.413	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	98.372	ND	28.8	ug/kg	
Holloman Table 2	SW8270	S	.	320.667	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	447.184	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	.	437.410	ND	28.9	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=2,6-Dinitrotoluene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	548.848	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	214.332	ND	33.3	ug/kg	
Holloman Table 2	SW8270	S	.	159.634	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	147.907	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	462.353	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	376.038	ND	34.6	ug/kg	
Holloman Table 2	SW8270	S	.	43.868	ND	31.5	ug/kg	
Holloman Table 2	SW8270	S	.	528.275	ND	36.1	ug/kg	
Holloman Table 2	SW8270	S	.	156.053	ND	31.6	ug/kg	
Holloman Table 2	SW8270	S	.	26.285	ND	36.4	ug/kg	
Holloman Table 2	SW8270	S	.	565.225	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	519.300	ND	36.4	ug/kg	
Holloman Table 2	SW8270	S	.	396.508	ND	31.7	ug/kg	

------- SWMUs Group=129/178 Method=Organics Analyte=2,6-Dinitrotoluene --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	119.130	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	.	272.441	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	401.337	ND	35.7	ug/kg	
Holloman Table 2	SW8270	S	.	55.611	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	429.565	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	.	120.221	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	492.155	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	30.948	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	525.060	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	347.963	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	532.320	ND	31.4	ug/kg	

N = 25

---- SWMUs Group=129/178 Method=Organics Analyte=2-Chloroethyl vinyl ether ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25000	DET	0.25000	mg/kg	
Holloman Table 2	SW8240	S	.	0.10824	ND	0.00608	mg/kg	
Holloman Table 2	SW8240	S	.	0.11918	ND	0.00630	mg/kg	
Holloman Table 2	SW8240	S	.	0.00493	ND	0.00594	mg/kg	
Holloman Table 2	SW8240	S	.	0.08423	ND	0.00306	mg/kg	
Holloman Table 2	SW8240	S	.	0.07448	ND	0.00288	mg/kg	
Holloman Table 2	SW8240	S	.	0.02381	ND	0.00299	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=2-Chloronaphthalene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	527.834	ND	46.5	ug/kg	
Holloman Table 2	SW8270	S	.	340.543	ND	48.4	ug/kg	
Holloman Table 2	SW8270	S	.	35.714	ND	45.3	ug/kg	
Holloman Table 2	SW8270	S	.	184.362	ND	48.2	ug/kg	
Holloman Table 2	SW8270	S	.	13.642	ND	48.1	ug/kg	
Holloman Table 2	SW8270	S	.	608.528	ND	50.3	ug/kg	
Holloman Table 2	SW8270	S	.	36.072	ND	45.8	ug/kg	
Holloman Table 2	SW8270	S	.	597.299	ND	52.5	ug/kg	
Holloman Table 2	SW8270	S	.	582.805	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	97.140	ND	53.0	ug/kg	

------- SWMUs Group=129/178 Method=Organics Analyte=2-Chloronaphthalene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	352.432	ND	46.4	ug/kg	
Holloman Table 2	SW8270	S	.	553.206	ND	52.9	ug/kg	
Holloman Table 2	SW8270	S	.	119.216	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	397.436	ND	52.3	ug/kg	
Holloman Table 2	SW8270	S	.	377.661	ND	46.7	ug/kg	
Holloman Table 2	SW8270	S	.	511.998	ND	51.9	ug/kg	
Holloman Table 2	SW8270	S	.	322.045	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	547.712	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	0.234	ND	26.9	ug/kg	
Holloman Table 2	SW8270	S	.	87.730	ND	27.3	ug/kg	
Holloman Table 2	SW8270	S	.	57.244	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	135.425	ND	26.0	ug/kg	
Holloman Table 2	SW8270	S	.	223.921	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	607.876	ND	27.7	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=2-Chlorophenol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	258.200	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	568.915	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	319.416	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	216.419	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	253.524	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	.	484.202	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	293.108	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	.	377.113	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	601.882	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	37.425	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	13.126	ND	27.3	ug/kg	
Holloman Table 2	SW8270	S	.	258.266	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	14.336	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	533.742	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	218.068	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	483.436	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	89.856	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	307.247	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	56.960	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	360.969	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	151.523	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	606.035	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	192.296	ND	24.6	ug/kg	

--------- SWMUs Group=129/178 Method=Organics Analyte=2-Chlorophenol ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	360.104	ND	23.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=2-Hexanone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.2	1.20000	DET	1.20000	mg/kg	
Holloman Table 2	SW8240	S	.	0.23151	ND	0.00347	mg/kg	
Holloman Table 2	SW8240	S	.	0.64226	ND	0.00360	mg/kg	
Holloman Table 2	SW8240	S	.	0.11769	ND	0.00339	mg/kg	
Holloman Table 2	SW8240	S	.	0.69314	ND	0.00102	mg/kg	
Holloman Table 2	SW8240	S	.	0.74062	ND	0.00713	mg/kg	
Holloman Table 2	SW8240	S	.	0.32857	ND	0.00741	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=2-Methylnaphthalene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	103.976	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	330.962	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	319.989	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	532.451	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	61.978	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	441.094	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	481.030	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	393.641	ND	33.3	ug/kg	
Holloman Table 2	SW8270	S	.	336.309	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	426.772	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	243.856	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	506.656	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	364.748	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	6.537	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	551.007	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	454.664	ND	32.9	ug/kg	
Holloman Table 2	SW8270	S	.	127.725	ND	24.9	ug/kg	
Holloman Table 2	SW8270	S	.	593.654	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	105.841	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	580.662	ND	24.1	ug/kg	

------- SWMUs Group=129/178 Method=Organics Analyte=2-Methylnaphthalene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	448.789	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	559.845	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	.	74.505	ND	25.2	ug/kg	
Holloman Table 2	SW8270	S	.	38.444	ND	24.5	ug/kg	

N = 25

---- SWMUs Group=129/178 Method=Organics Analyte=2-Methylphenol(o-cresol) -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	492.475	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	542.457	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	415.451	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	479.244	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	4.092	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	87.411	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	607.310	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	438.000	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	173.130	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	549.278	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	179.677	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	396.612	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	220.006	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	487.967	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	115.171	ND	25.9	ug/kg	
Holloman Table 2	SW8270	S	.	506.361	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	338.018	ND	13.5	ug/kg	
Holloman Table 2	SW8270	S	.	504.959	ND	12.5	ug/kg	
Holloman Table 2	SW8270	S	.	356.611	ND	12.8	ug/kg	
Holloman Table 2	SW8270	S	.	7.019	ND	13.1	ug/kg	
Holloman Table 2	SW8270	S	.	171.246	ND	13.2	ug/kg	
Holloman Table 2	SW8270	S	.	305.534	ND	12.4	ug/kg	
Holloman Table 2	SW8270	S	.	383.655	ND	13.6	ug/kg	
Holloman Table 2	SW8270	S	.	557.814	ND	13.3	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=2-Nitroaniline ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100.0	ug/kg	
Holloman Table 2	SW8270	S	.	206.74	ND	46.5	ug/kg	
Holloman Table 2	SW8270	S	.	2378.19	ND	48.4	ug/kg	
Holloman Table 2	SW8270	S	.	1973.28	ND	45.3	ug/kg	
Holloman Table 2	SW8270	S	.	1164.26	ND	48.2	ug/kg	
Holloman Table 2	SW8270	S	.	519.15	ND	48.1	ug/kg	
Holloman Table 2	SW8270	S	.	2597.51	ND	50.3	ug/kg	
Holloman Table 2	SW8270	S	.	241.16	ND	45.8	ug/kg	
Holloman Table 2	SW8270	S	.	1935.25	ND	52.5	ug/kg	
Holloman Table 2	SW8270	S	.	2104.92	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	467.68	ND	53.0	ug/kg	
Holloman Table 2	SW8270	S	.	2334.33	ND	46.4	ug/kg	
Holloman Table 2	SW8270	S	.	2359.19	ND	52.9	ug/kg	
Holloman Table 2	SW8270	S	.	2415.29	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	435.40	ND	52.3	ug/kg	
Holloman Table 2	SW8270	S	.	370.03	ND	46.7	ug/kg	
Holloman Table 2	SW8270	S	.	2913.01	ND	51.9	ug/kg	
Holloman Table 2	SW8270	S	.	1125.88	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	886.81	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	417.29	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	598.11	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	2288.40	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	2102.27	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	2978.85	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	1160.98	ND	31.2	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=2-Nitrophenol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	26.326	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	418.053	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	325.028	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	.	460.626	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	538.026	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	431.654	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	274.272	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	265.597	ND	31.5	ug/kg	
Holloman Table 2	SW8270	S	.	505.111	ND	27.6	ug/kg	
Holloman Table 2	SW8270	S	.	260.610	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	431.317	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	475.877	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	523.958	ND	27.7	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=2-Nitrophenol ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	268.420	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	28.861	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	276.913	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	404.887	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	11.111	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	12.936	ND	30.3	ug/kg	
Holloman Table 2	SW8270	S	.	169.553	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	455.049	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	579.696	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	171.103	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	558.149	ND	31.3	ug/kg	

N = 25

----- SWMUs Group=129/178 Method=Organics Analyte=3,3'-Dichlorobenzidine ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	1200	1200.00	DET	1200.0	ug/kg	
Holloman Table 2	SW8270	S	.	545.88	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	1189.88	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	1118.13	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	214.62	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	250.01	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	583.53	ND	23.6	ug/kg	
Holloman Table 2	SW8270	S	.	947.88	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	713.55	ND	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	719.77	ND	21.6	ug/kg	
Holloman Table 2	SW8270	S	.	37.99	ND	24.8	ug/kg	
Holloman Table 2	SW8270	S	.	177.47	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	58.67	ND	24.8	ug/kg	
Holloman Table 2	SW8270	S	.	543.38	ND	21.6	ug/kg	
Holloman Table 2	SW8270	S	.	157.17	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	567.55	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	149.37	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	595.30	ND	38.4	ug/kg	
Holloman Table 2	SW8270	S	.	1135.80	ND	35.7	ug/kg	
Holloman Table 2	SW8270	S	.	1054.88	ND	36.6	ug/kg	
Holloman Table 2	SW8270	S	.	505.25	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	576.94	ND	37.7	ug/kg	
Holloman Table 2	SW8270	S	.	516.84	ND	35.4	ug/kg	
Holloman Table 2	SW8270	S	.	800.75	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	889.97	ND	37.8	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=3-Nitroaniline ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100.0	ug/kg	
Holloman Table 2	SW8270	S	.	1672.41	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	274.94	ND	36.2	ug/kg	
Holloman Table 2	SW8270	S	.	1025.51	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	.	2295.03	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	.	2978.27	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	.	2546.74	ND	37.6	ug/kg	
Holloman Table 2	SW8270	S	.	1446.65	ND	34.2	ug/kg	
Holloman Table 2	SW8270	S	.	64.53	ND	39.2	ug/kg	
Holloman Table 2	SW8270	S	.	860.16	ND	34.4	ug/kg	
Holloman Table 2	SW8270	S	.	2515.32	ND	39.6	ug/kg	
Holloman Table 2	SW8270	S	.	133.17	ND	34.7	ug/kg	
Holloman Table 2	SW8270	S	.	2929.32	ND	39.5	ug/kg	
Holloman Table 2	SW8270	S	.	734.85	ND	34.4	ug/kg	
Holloman Table 2	SW8270	S	.	2254.60	ND	39.1	ug/kg	
Holloman Table 2	SW8270	S	.	1511.91	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	741.94	ND	38.8	ug/kg	
Holloman Table 2	SW8270	S	.	1415.35	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	846.10	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	1243.94	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	3056.50	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	560.83	ND	32.8	ug/kg	
Holloman Table 2	SW8270	S	.	1687.09	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	3083.51	ND	33.8	ug/kg	
Holloman Table 2	SW8270	S	.	565.54	ND	32.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=4,4'-DDD ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=4,4'-DDE ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=4,4'-DDT ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0012	.0012	DET	.0012	mg/kg	

N = 1

--- SWMUs Group=129/178 Method=Organics Analyte=4,6-Dinitro-2-methylphenol ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100.0	ug/kg	
Holloman Table 2	SW8270	S	.	1552.33	ND	39.5	ug/kg	
Holloman Table 2	SW8270	S	.	1012.42	ND	41.1	ug/kg	
Holloman Table 2	SW8270	S	.	812.50	ND	38.5	ug/kg	
Holloman Table 2	SW8270	S	.	1078.18	ND	40.9	ug/kg	
Holloman Table 2	SW8270	S	.	1205.95	ND	40.8	ug/kg	
Holloman Table 2	SW8270	S	.	2276.27	ND	42.7	ug/kg	
Holloman Table 2	SW8270	S	.	692.00	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	2674.61	ND	44.5	ug/kg	
Holloman Table 2	SW8270	S	.	1267.09	ND	39.0	ug/kg	
Holloman Table 2	SW8270	S	.	1049.67	ND	45.0	ug/kg	
Holloman Table 2	SW8270	S	.	1255.63	ND	39.4	ug/kg	
Holloman Table 2	SW8270	S	.	1945.39	ND	44.9	ug/kg	
Holloman Table 2	SW8270	S	.	2120.83	ND	39.1	ug/kg	
Holloman Table 2	SW8270	S	.	419.95	ND	44.4	ug/kg	
Holloman Table 2	SW8270	S	.	1958.16	ND	39.7	ug/kg	
Holloman Table 2	SW8270	S	.	852.83	ND	44.1	ug/kg	
Holloman Table 2	SW8270	S	.	2127.28	ND	42.2	ug/kg	
Holloman Table 2	SW8270	S	.	78.25	ND	39.2	ug/kg	
Holloman Table 2	SW8270	S	.	795.28	ND	40.1	ug/kg	
Holloman Table 2	SW8270	S	.	892.46	ND	40.8	ug/kg	
Holloman Table 2	SW8270	S	.	1174.48	ND	41.4	ug/kg	
Holloman Table 2	SW8270	S	.	691.15	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	2354.24	ND	42.7	ug/kg	
Holloman Table 2	SW8270	S	.	1581.26	ND	41.4	ug/kg	

N = 25

--- SWMUs Group=129/178 Method=Organics Analyte=4-Bromophenyl phenyl ether ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	72.921	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	120.474	ND	37.1	ug/kg	
Holloman Table 2	SW8270	S	.	72.891	ND	34.7	ug/kg	

--- SWMUs Group=129/178 Method=Organics Analyte=4-8romophenyl phenyl ether ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	265.066	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	194.698	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	594.028	ND	38.5	ug/kg	
Holloman Table 2	SW8270	S	.	469.562	ND	35.1	ug/kg	
Holloman Table 2	SW8270	S	.	154.656	ND	40.2	ug/kg	
Holloman Table 2	SW8270	S	.	403.486	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	0.904	ND	40.6	ug/kg	
Holloman Table 2	SW8270	S	.	375.785	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	244.877	ND	40.5	ug/kg	
Holloman Table 2	SW8270	S	.	162.414	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	177.147	ND	40.1	ug/kg	
Holloman Table 2	SW8270	S	.	374.223	ND	35.8	ug/kg	
Holloman Table 2	SW8270	S	.	174.124	ND	39.8	ug/kg	
Holloman Table 2	SW8270	S	.	459.321	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	134.898	ND	16.7	ug/kg	
Holloman Table 2	SW8270	S	.	32.098	ND	17.1	ug/kg	
Holloman Table 2	SW8270	S	.	279.000	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	498.909	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	480.381	ND	16.6	ug/kg	
Holloman Table 2	SW8270	S	.	311.150	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	170.750	ND	17.7	ug/kg	

N = 25

----- SWMUs Group=129/178 Method=Organics Analyte=4-Chloro-3-methylphenol -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	239.235	ND	26.9	ug/kg	
Holloman Table 2	SW8270	S	.	173.560	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	127.180	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	271.624	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	474.494	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	334.740	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	203.101	ND	26.5	ug/kg	
Holloman Table 2	SW8270	S	.	319.557	ND	30.3	ug/kg	
Holloman Table 2	SW8270	S	.	563.306	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	419.386	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	386.643	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	457.591	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	137.131	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	503.100	ND	30.3	ug/kg	
Holloman Table 2	SW8270	S	.	310.893	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	.	20.418	ND	30.0	ug/kg	

----- SWMUs Group=129/178 Method=Organics Analyte=4-Chloro-3-methylphenol -----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	248.545	ND	17.2	ug/kg	
Holloman Table 2	SW8270	S	.	473.861	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	5.611	ND	16.4	ug/kg	
Holloman Table 2	SW8270	S	.	273.974	ND	16.6	ug/kg	
Holloman Table 2	SW8270	S	.	206.738	ND	16.9	ug/kg	
Holloman Table 2	SW8270	S	.	122.034	ND	15.9	ug/kg	
Holloman Table 2	SW8270	S	.	343.036	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	154.808	ND	16.9	ug/kg	

N = 25

--- SWMUs Group=129/178 Method=Organics Analyte=4-Chlorophenyl phenyl ether ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	491.908	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	353.145	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	507.831	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	119.359	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	44.993	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	562.528	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	175.017	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	85.726	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	388.837	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	.	174.579	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	537.700	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	385.727	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	300.441	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	.	94.461	ND	26.1	ug/kg	
Holloman Table 2	SW8270	S	.	281.414	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	524.297	ND	25.9	ug/kg	
Holloman Table 2	SW8270	S	.	185.139	ND	20.1	ug/kg	
Holloman Table 2	SW8270	S	.	62.256	ND	18.6	ug/kg	
Holloman Table 2	SW8270	S	.	391.148	ND	19.1	ug/kg	
Holloman Table 2	SW8270	S	.	259.081	ND	19.4	ug/kg	
Holloman Table 2	SW8270	S	.	605.378	ND	19.7	ug/kg	
Holloman Table 2	SW8270	S	.	136.346	ND	18.5	ug/kg	
Holloman Table 2	SW8270	S	.	123.180	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	248.938	ND	19.7	ug/kg	

N = 25

--- SWMUs Group=129/178 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK) ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.2	1.20000	DET	1.20000	mg/kg	
Holloman Table 2	SW8240	S	.	0.88556	ND	0.00193	mg/kg	
Holloman Table 2	SW8240	S	.	1.01697	ND	0.00201	mg/kg	
Holloman Table 2	SW8240	S	.	0.37203	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	.	0.36550	ND	0.00098	mg/kg	
Holloman Table 2	SW8240	S	.	0.67684	ND	0.00318	mg/kg	
Holloman Table 2	SW8240	S	.	0.35615	ND	0.00330	mg/kg	

N = 7

-- SWMUs Group=129/178 Method=Organics Analyte=4-Methylphenol/3-Methylphenol --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	239.760	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	290.556	ND	18.4	ug/kg	
Holloman Table 2	SW8270	S	.	268.353	ND	17.3	ug/kg	
Holloman Table 2	SW8270	S	.	107.933	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	227.737	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	532.843	ND	19.2	ug/kg	
Holloman Table 2	SW8270	S	.	230.356	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	586.264	ND	20.0	ug/kg	
Holloman Table 2	SW8270	S	.	215.902	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	271.710	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	529.427	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	312.001	ND	20.1	ug/kg	
Holloman Table 2	SW8270	S	.	544.129	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	255.292	ND	19.9	ug/kg	
Holloman Table 2	SW8270	S	.	129.377	ND	17.8	ug/kg	
Holloman Table 2	SW8270	S	.	429.284	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	.	480.887	ND	15.7	ug/kg	
Holloman Table 2	SW8270	S	.	177.582	ND	14.5	ug/kg	
Holloman Table 2	SW8270	S	.	452.957	ND	14.9	ug/kg	
Holloman Table 2	SW8270	S	.	529.043	ND	15.2	ug/kg	
Holloman Table 2	SW8270	S	.	530.826	ND	15.4	ug/kg	
Holloman Table 2	SW8270	S	.	244.415	ND	14.4	ug/kg	
Holloman Table 2	SW8270	S	.	18.014	ND	15.8	ug/kg	
Holloman Table 2	SW8270	S	.	242.444	ND	15.4	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=4-Nitroaniline ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100.0	ug/kg	
Holloman Table 2	SW8270	S	.	2385.97	ND	44.1	ug/kg	
Holloman Table 2	SW8270	S	.	1623.63	ND	45.9	ug/kg	
Holloman Table 2	SW8270	S	.	627.33	ND	43.0	ug/kg	
Holloman Table 2	SW8270	S	.	2529.77	ND	45.7	ug/kg	
Holloman Table 2	SW8270	S	.	42.55	ND	45.6	ug/kg	
Holloman Table 2	SW8270	S	.	1595.22	ND	47.7	ug/kg	
Holloman Table 2	SW8270	S	.	903.71	ND	43.4	ug/kg	
Holloman Table 2	SW8270	S	.	1592.12	ND	49.7	ug/kg	
Holloman Table 2	SW8270	S	.	3000.21	ND	43.6	ug/kg	
Holloman Table 2	SW8270	S	.	2740.99	ND	50.2	ug/kg	
Holloman Table 2	SW8270	S	.	31.67	ND	44.0	ug/kg	
Holloman Table 2	SW8270	S	.	1303.88	ND	50.1	ug/kg	
Holloman Table 2	SW8270	S	.	964.50	ND	43.6	ug/kg	
Holloman Table 2	SW8270	S	.	2145.18	ND	49.6	ug/kg	
Holloman Table 2	SW8270	S	.	1564.79	ND	44.3	ug/kg	
Holloman Table 2	SW8270	S	.	1116.83	ND	49.2	ug/kg	
Holloman Table 2	SW8270	S	.	2685.35	ND	46.8	ug/kg	
Holloman Table 2	SW8270	S	.	614.60	ND	43.5	ug/kg	
Holloman Table 2	SW8270	S	.	896.75	ND	44.6	ug/kg	
Holloman Table 2	SW8270	S	.	2861.80	ND	45.3	ug/kg	
Holloman Table 2	SW8270	S	.	1176.13	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	2025.76	ND	43.2	ug/kg	
Holloman Table 2	SW8270	S	.	2070.47	ND	47.4	ug/kg	
Holloman Table 2	SW8270	S	.	1970.37	ND	46.0	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=4-Nitrophenol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100	ug/kg	
Holloman Table 2	SW8270	S	.	1201.12	ND	113	ug/kg	
Holloman Table 2	SW8270	S	.	897.00	ND	118	ug/kg	
Holloman Table 2	SW8270	S	.	693.67	ND	110	ug/kg	
Holloman Table 2	SW8270	S	.	1742.76	ND	117	ug/kg	
Holloman Table 2	SW8270	S	.	3004.98	ND	117	ug/kg	
Holloman Table 2	SW8270	S	.	460.84	ND	122	ug/kg	
Holloman Table 2	SW8270	S	.	415.65	ND	111	ug/kg	
Holloman Table 2	SW8270	S	.	2457.00	ND	127	ug/kg	
Holloman Table 2	SW8270	S	.	3027.93	ND	112	ug/kg	
Holloman Table 2	SW8270	S	.	1424.50	ND	129	ug/kg	
Holloman Table 2	SW8270	S	.	540.29	ND	113	ug/kg	
Holloman Table 2	SW8270	S	.	2269.25	ND	128	ug/kg	
Holloman Table 2	SW8270	S	.	2033.23	ND	112	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=4-Nitrophenol ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	1043.61	ND	127.0	ug/kg	
Holloman Table 2	SW8270	S	.	2105.75	ND	113.0	ug/kg	
Holloman Table 2	SW8270	S	.	3010.47	ND	126.0	ug/kg	
Holloman Table 2	SW8270	S	.	2473.73	ND	49.8	ug/kg	
Holloman Table 2	SW8270	S	.	1263.02	ND	46.2	ug/kg	
Holloman Table 2	SW8270	S	.	2435.68	ND	47.4	ug/kg	
Holloman Table 2	SW8270	S	.	856.70	ND	48.2	ug/kg	
Holloman Table 2	SW8270	S	.	2720.66	ND	48.9	ug/kg	
Holloman Table 2	SW8270	S	.	989.81	ND	45.9	ug/kg	
Holloman Table 2	SW8270	S	.	2573.77	ND	50.4	ug/kg	
Holloman Table 2	SW8270	S	.	676.21	ND	48.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Acenaphthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	278.073	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	268.242	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	31.297	ND	28.6	ug/kg	
Holloman Table 2	SW8270	S	.	20.158	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	424.264	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	142.079	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	116.530	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	557.847	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	164.038	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	189.033	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	67.162	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	322.074	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	261.794	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	265.613	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	313.537	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	23.112	ND	32.8	ug/kg	
Holloman Table 2	SW8270	S	.	478.170	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	375.527	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	593.252	ND	26.1	ug/kg	
Holloman Table 2	SW8270	S	.	137.096	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	311.718	ND	26.9	ug/kg	
Holloman Table 2	SW8270	S	.	245.501	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	18.513	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	425.200	ND	27.0	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=Acenaphthylene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610	DET	610	ug/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.5000	2.5000	DET	2.50000	mg/kg	
Holloman Table 2	SW8240	S	1.1000	1.1000	DET	0.00749	mg/kg	B
Holloman Table 2	SW8240	S	0.0098	0.0098	DET	0.03080	mg/kg	J
Holloman Table 2	SW8240	S	0.0410	0.0410	DET	0.02910	mg/kg	
Holloman Table 2	SW8240	S	0.0123	0.0123	DET	0.00160	mg/kg	B
Holloman Table 2	SW8240	S	0.0349	0.0349	DET	0.01850	mg/kg	B
Holloman Table 2	SW8240	S	0.0186	0.0186	DET	0.01920	mg/kg	BJ

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Aldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Anthracene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	606.679	ND	23.8	ug/kg	
Holloman Table 2	SW8270	S	.	144.467	ND	24.8	ug/kg	
Holloman Table 2	SW8270	S	.	198.679	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	498.341	ND	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	479.792	ND	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	54.700	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	554.794	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	9.317	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	168.634	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	527.957	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	142.448	ND	23.7	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Anthracene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	275.503	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	.	16.078	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	584.960	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	593.697	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	32.029	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	83.455	ND	32.8	ug/kg	
Holloman Table 2	SW8270	S	.	286.457	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	248.014	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	167.748	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	62.256	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	8.735	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	.	568.640	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	133.705	ND	32.2	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07635	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.01932	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	.	0.08545	ND	0.00178	mg/kg	
Holloman Table 2	SW8240	S	.	0.03381	ND	0.00184	mg/kg	
Holloman Table 2	SW8240	S	.	0.07946	ND	0.00126	mg/kg	
Holloman Table 2	SW8240	S	.	0.06374	ND	0.00131	mg/kg	

N = 7

------- SWMUs Group=129/178 Method=Organics Analyte=Benzo(a)anthracene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	604.255	ND	22.3	ug/kg	
Holloman Table 2	SW8270	S	.	550.267	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	70.493	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	470.014	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	441.860	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	327.468	ND	24.1	ug/kg	
Holloman Table 2	SW8270	S	.	495.051	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	135.084	ND	25.1	ug/kg	

------- SWMUs Group=129/178 Method=Organics Analyte=Benzo(a)anthracene --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	250.007	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	502.898	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	125.099	ND	22.2	ug/kg	
Holloman Table 2	SW8270	S	.	597.471	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	291.992	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	404.514	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	477.076	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	599.124	ND	24.9	ug/kg	
Holloman Table 2	SW8270	S	.	460.504	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	496.133	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	420.239	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	318.844	ND	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	302.297	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	531.193	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	14.910	ND	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	311.702	ND	25.1	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=Benzo(a)pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	305.149	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	277.499	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	80.905	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	569.840	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	21.247	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	231.170	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	566.339	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	255.480	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	351.551	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	524.208	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	200.539	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	597.921	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	377.776	ND	27.9	ug/kg	
Holloman Table 2	SW8270	S	.	125.021	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	201.315	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	.	559.742	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	151.752	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	.	225.096	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	110.268	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	.	438.138	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	541.853	ND	33.5	ug/kg	

--------- SWMUs Group=129/178 Method=Organics Analyte=Benzo(a)pyrene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	273.712	ND	31.5	ug/kg	
Holloman Table 2	SW8270	S	.	38.345	ND	34.5	ug/kg	
Holloman Table 2	SW8270	S	.	12.013	ND	33.5	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(b)fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	231.166	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	499.648	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	268.819	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	320.492	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	29.739	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	8.062	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	425.479	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	380.751	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	502.985	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	123.767	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	213.974	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	226.371	ND	32.3	ug/kg	
Holloman Table 2	SW8270	S	.	223.846	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	73.191	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	293.524	ND	28.6	ug/kg	
Holloman Table 2	SW8270	S	.	204.950	ND	31.7	ug/kg	
Holloman Table 2	SW8270	S	.	155.398	ND	45.1	ug/kg	
Holloman Table 2	SW8270	S	.	308.781	ND	41.9	ug/kg	
Holloman Table 2	SW8270	S	.	421.363	ND	42.9	ug/kg	
Holloman Table 2	SW8270	S	.	572.886	ND	43.7	ug/kg	
Holloman Table 2	SW8270	S	.	400.131	ND	44.3	ug/kg	
Holloman Table 2	SW8270	S	.	368.064	ND	41.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.600	ND	45.6	ug/kg	
Holloman Table 2	SW8270	S	.	215.057	ND	44.3	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(g,h,i)perylene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610	DET	610	ug/kg	

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(g,h,i)perylene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	484.393	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	13.573	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	68.902	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	259.668	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	467.819	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	.	425.556	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	148.177	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	.	423.116	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	179.681	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	477.069	ND	31.2	ug/kg	
Holloman Table 2	SW8270	S	.	240.685	ND	27.3	ug/kg	
Holloman Table 2	SW8270	S	.	512.060	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	524.796	ND	27.1	ug/kg	
Holloman Table 2	SW8270	S	.	30.380	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	512.307	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	71.108	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	320.223	ND	48.5	ug/kg	
Holloman Table 2	SW8270	S	.	228.900	ND	45.0	ug/kg	
Holloman Table 2	SW8270	S	.	106.378	ND	46.2	ug/kg	
Holloman Table 2	SW8270	S	.	386.896	ND	47.0	ug/kg	
Holloman Table 2	SW8270	S	.	416.372	ND	47.6	ug/kg	
Holloman Table 2	SW8270	S	.	271.976	ND	44.7	ug/kg	
Holloman Table 2	SW8270	S	.	409.165	ND	49.1	ug/kg	
Holloman Table 2	SW8270	S	.	320.865	ND	47.7	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(k)fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	90.345	ND	35.8	ug/kg	
Holloman Table 2	SW8270	S	.	397.719	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	208.515	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	468.129	ND	37.0	ug/kg	
Holloman Table 2	SW8270	S	.	587.994	ND	37.0	ug/kg	
Holloman Table 2	SW8270	S	.	120.140	ND	38.7	ug/kg	
Holloman Table 2	SW8270	S	.	15.173	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	93.381	ND	40.3	ug/kg	
Holloman Table 2	SW8270	S	.	391.502	ND	35.4	ug/kg	
Holloman Table 2	SW8270	S	.	221.181	ND	40.7	ug/kg	
Holloman Table 2	SW8270	S	.	130.851	ND	35.7	ug/kg	
Holloman Table 2	SW8270	S	.	477.874	ND	40.6	ug/kg	
Holloman Table 2	SW8270	S	.	566.719	ND	35.4	ug/kg	

------ SWMUs Group=129/178 Method=Organics Analyte=Benzo(k)fluoranthene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	280.980	ND	40.2	ug/kg	
Holloman Table 2	SW8270	S	.	608.319	ND	35.9	ug/kg	
Holloman Table 2	SW8270	S	.	184.767	ND	39.9	ug/kg	
Holloman Table 2	SW8270	S	.	542.452	ND	47.3	ug/kg	
Holloman Table 2	SW8270	S	.	256.766	ND	43.9	ug/kg	
Holloman Table 2	SW8270	S	.	44.174	ND	45.0	ug/kg	
Holloman Table 2	SW8270	S	.	257.042	ND	45.7	ug/kg	
Holloman Table 2	SW8270	S	.	565.032	ND	46.4	ug/kg	
Holloman Table 2	SW8270	S	.	264.266	ND	43.6	ug/kg	
Holloman Table 2	SW8270	S	.	518.722	ND	47.8	ug/kg	
Holloman Table 2	SW8270	S	.	240.272	ND	46.4	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Benzoic acid ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100	ug/kg	
Holloman Table 2	SW8270	S	.	1664.71	ND	244	ug/kg	
Holloman Table 2	SW8270	S	.	661.09	ND	254	ug/kg	
Holloman Table 2	SW8270	S	.	2114.17	ND	238	ug/kg	
Holloman Table 2	SW8270	S	.	895.21	ND	253	ug/kg	
Holloman Table 2	SW8270	S	.	1677.15	ND	252	ug/kg	
Holloman Table 2	SW8270	S	.	1962.61	ND	264	ug/kg	
Holloman Table 2	SW8270	S	.	1717.09	ND	240	ug/kg	
Holloman Table 2	SW8270	S	.	2754.68	ND	275	ug/kg	
Holloman Table 2	SW8270	S	.	216.50	ND	241	ug/kg	
Holloman Table 2	SW8270	S	.	1880.78	ND	278	ug/kg	
Holloman Table 2	SW8270	S	.	1144.05	ND	243	ug/kg	
Holloman Table 2	SW8270	S	.	1283.53	ND	277	ug/kg	
Holloman Table 2	SW8270	S	.	287.71	ND	241	ug/kg	
Holloman Table 2	SW8270	S	.	2990.83	ND	274	ug/kg	
Holloman Table 2	SW8270	S	.	1779.36	ND	245	ug/kg	
Holloman Table 2	SW8270	S	.	626.48	ND	272	ug/kg	
Holloman Table 2	SW8270	S	.	1240.49	ND	1120	ug/kg	
Holloman Table 2	SW8270	S	.	370.85	ND	1040	ug/kg	
Holloman Table 2	SW8270	S	.	2011.44	ND	1070	ug/kg	
Holloman Table 2	SW8270	S	.	866.98	ND	1080	ug/kg	
Holloman Table 2	SW8270	S	.	2900.22	ND	1100	ug/kg	
Holloman Table 2	SW8270	S	.	1809.17	ND	1030	ug/kg	
Holloman Table 2	SW8270	S	.	1273.04	ND	1130	ug/kg	
Holloman Table 2	SW8270	S	.	2627.39	ND	1100	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=Benzyl alcohol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	503.913	ND	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	206.108	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	397.403	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	465.994	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	520.959	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	131.736	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	550.863	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	49.150	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	471.841	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	125.967	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	357.964	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	479.521	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	328.060	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	28.137	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	209.473	NO	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	308.816	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	504.418	ND	23.1	ug/kg	
Holloman Table 2	SW8270	S	.	579.213	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	250.848	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	411.481	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	331.899	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	294.359	ND	21.3	ug/kg	
Holloman Table 2	SW8270	S	.	345.626	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	232.359	ND	22.7	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Bromodichloromethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.09961	ND	0.00411	mg/kg	
Holloman Table 2	SW8240	S	.	0.07692	ND	0.00426	mg/kg	
Holloman Table 2	SW8240	S	.	0.11356	ND	0.00402	mg/kg	
Holloman Table 2	SW8240	S	.	0.10662	ND	0.00174	mg/kg	
Holloman Table 2	SW8240	S	.	0.00675	ND	0.00145	mg/kg	
Holloman Table 2	SW8240	S	.	0.06095	ND	0.00151	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Bromomethane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25000	DET	0.25000	mg/kg	
Holloman Table 2	SW8240	S	.	0.05605	ND	0.00298	mg/kg	
Holloman Table 2	SW8240	S	.	0.24225	ND	0.00310	mg/kg	
Holloman Table 2	SW8240	S	.	0.08399	ND	0.00292	mg/kg	
Holloman Table 2	SW8240	S	.	0.04766	ND	0.00215	mg/kg	
Holloman Table 2	SW8240	S	.	0.15414	ND	0.00299	mg/kg	
Holloman Table 2	SW8240	S	.	0.10310	ND	0.00311	mg/kg	

N = 7

------ SWMUs Group=129/178 Method=Organics Analyte=Butylbenzylphthalate -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	124.079	ND	71.6	ug/kg	
Holloman Table 2	SW8270	S	.	555.900	ND	74.6	ug/kg	
Holloman Table 2	SW8270	S	.	562.463	ND	69.8	ug/kg	
Holloman Table 2	SW8270	S	.	375.180	ND	74.1	ug/kg	
Holloman Table 2	SW8270	S	.	104.406	ND	74.1	ug/kg	
Holloman Table 2	SW8270	S	.	12.691	ND	77.4	ug/kg	
Holloman Table 2	SW8270	S	.	548.312	ND	70.5	ug/kg	
Holloman Table 2	SW8270	S	.	58.816	ND	80.8	ug/kg	
Holloman Table 2	SW8270	S	.	188.336	ND	70.8	ug/kg	
Holloman Table 2	SW8270	S	.	335.607	ND	81.6	ug/kg	
Holloman Table 2	SW8270	S	.	575.062	ND	71.4	ug/kg	
Holloman Table 2	SW8270	S	.	387.725	ND	81.4	ug/kg	
Holloman Table 2	SW8270	S	.	26.285	ND	70.8	ug/kg	
Holloman Table 2	SW8270	S	.	426.466	ND	80.5	ug/kg	
Holloman Table 2	SW8270	S	.	483.123	ND	72.0	ug/kg	
Holloman Table 2	SW8270	S	.	173.440	ND	79.9	ug/kg	
Holloman Table 2	SW8270	S	.	586.724	ND	78.3	ug/kg	
Holloman Table 2	SW8270	S	.	149.482	ND	72.7	ug/kg	
Holloman Table 2	SW8270	S	.	368.635	ND	74.5	ug/kg	
Holloman Table 2	SW8270	S	.	516.456	ND	75.8	ug/kg	
Holloman Table 2	SW8270	S	.	220.983	ND	76.9	ug/kg	
Holloman Table 2	SW8270	S	.	64.813	ND	72.2	ug/kg	
Holloman Table 2	SW8270	S	.	155.121	ND	79.2	ug/kg	
Holloman Table 2	SW8270	S	.	424.089	ND	76.9	ug/kg	

N = 25

-------- SWMUs Group=129/178 Method=Organics Analyte=Carbon disulfide ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08512	ND	0.00486	mg/kg	
Holloman Table 2	SW8240	S	.	0.08531	ND	0.00504	mg/kg	
Holloman Table 2	SW8240	S	.	0.00057	ND	0.00475	mg/kg	
Holloman Table 2	SW8240	S	.	0.05105	ND	0.00277	mg/kg	
Holloman Table 2	SW8240	S	.	0.01966	ND	0.00335	mg/kg	
Holloman Table 2	SW8240	S	.	0.02580	ND	0.00348	mg/kg	

N = 7

------ SWMUs Group=129/178 Method=Organics Analyte=Carbon tetrachloride -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.05062	ND	0.00236	mg/kg	
Holloman Table 2	SW8240	S	.	0.11377	ND	0.00244	mg/kg	
Holloman Table 2	SW8240	S	.	0.11680	ND	0.00230	mg/kg	
Holloman Table 2	SW8240	S	.	0.06102	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	.	0.01514	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.07038	ND	0.00179	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Chlordane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0031	.0031	DET	.0031	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Chlorobenzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07660	ND	0.00140	mg/kg	
Holloman Table 2	SW8240	S	.	0.00979	ND	0.00145	mg/kg	
Holloman Table 2	SW8240	S	.	0.01656	ND	0.00137	mg/kg	
Holloman Table 2	SW8240	S	.	0.06005	ND	0.00496	mg/kg	
Holloman Table 2	SW8240	S	.	0.10040	ND	0.00139	mg/kg	

-------- SWMUs Group=129/178 Method=Organics Analyte=Chlorobenzene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.044706	ND	.00144	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloroethane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25000	DET	0.25000	mg/kg	
Holloman Table 2	SW8240	S	.	0.11664	ND	0.00279	mg/kg	
Holloman Table 2	SW8240	S	.	0.03227	ND	0.00290	mg/kg	
Holloman Table 2	SW8240	S	.	0.23341	ND	0.00273	mg/kg	
Holloman Table 2	SW8240	S	.	0.23300	ND	0.00218	mg/kg	
Holloman Table 2	SW8240	S	.	0.07429	ND	0.00238	mg/kg	
Holloman Table 2	SW8240	S	.	0.18807	ND	0.00247	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloroform ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03823	ND	0.00153	mg/kg	
Holloman Table 2	SW8240	S	.	0.01051	ND	0.00159	mg/kg	
Holloman Table 2	SW8240	S	.	0.07926	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.09090	ND	0.00223	mg/kg	
Holloman Table 2	SW8240	S	.	0.03306	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.07744	ND	0.00205	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Chloromethane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25000	DET	0.25000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00937	ND	0.00262	mg/kg	
Holloman Table 2	SW8240	S	.	0.20899	ND	0.00272	mg/kg	
Holloman Table 2	SW8240	S	.	0.10588	ND	0.00256	mg/kg	
Holloman Table 2	SW8240	S	.	0.13590	ND	0.00260	mg/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Chlorometh ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.21348	ND	.00678	mg/kg	
Holloman Table 2	SW8240	S	.	0.19091	ND	.00705	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	520.223	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	597.614	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	483.353	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	62.419	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	545.821	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	98.945	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	485.673	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	280.370	ND	33.3	ug/kg	
Holloman Table 2	SW8270	S	.	43.310	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	450.413	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	382.410	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	127.887	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	83.897	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	260.223	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	60.443	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	397.608	ND	32.9	ug/kg	
Holloman Table 2	SW8270	S	.	164.744	ND	42.6	ug/kg	
Holloman Table 2	SW8270	S	.	291.325	ND	39.5	ug/kg	
Holloman Table 2	SW8270	S	.	525.998	ND	40.5	ug/kg	
Holloman Table 2	SW8270	S	.	11.082	ND	41.2	ug/kg	
Holloman Table 2	SW8270	S	.	350.118	ND	41.8	ug/kg	
Holloman Table 2	SW8270	S	.	24.631	ND	39.2	ug/kg	
Holloman Table 2	SW8270	S	.	219.024	ND	43.1	ug/kg	
Holloman Table 2	SW8270	S	.	276.628	ND	41.8	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Dalapon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.36	0.36	DET	0.36	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Demeton O ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.092	0.092	DET	0.092	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Demeton S ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.092	0.092	DET	0.092	mg/kg	

N = 1

------- SWMUs Group=129/178 Method=Organics Analyte=Di-n-octylphthalate -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	297.150	ND	32.3	ug/kg	
Holloman Table 2	SW8270	S	.	433.215	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	92.474	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	387.734	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	255.129	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	531.375	ND	34.9	ug/kg	
Holloman Table 2	SW8270	S	.	599.938	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	492.810	ND	36.4	ug/kg	
Holloman Table 2	SW8270	S	.	219.193	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	315.133	ND	36.8	ug/kg	
Holloman Table 2	SW8270	S	.	357.146	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	310.994	ND	36.7	ug/kg	
Holloman Table 2	SW8270	S	.	541.174	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	26.664	ND	36.3	ug/kg	
Holloman Table 2	SW8270	S	.	330.441	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	420.909	ND	36.0	ug/kg	
Holloman Table 2	SW8270	S	.	552.670	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	393.910	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	553.858	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	78.110	ND	21.4	ug/kg	
Holloman Table 2	SW8270	S	.	127.074	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	58.489	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	51.315	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	19.904	ND	21.7	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Dibenz(a,h)anthracene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	584.477	ND	29.6	ug/kg	
Holloman Table 2	SW8270	S	.	601.779	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	482.685	ND	28.8	ug/kg	
Holloman Table 2	SW8270	S	.	15.614	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	173.076	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	61.533	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	230.578	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	166.401	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	266.910	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	303.996	ND	33.7	ug/kg	
Holloman Table 2	SW8270	S	.	378.204	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	497.780	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	472.330	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	250.471	ND	33.3	ug/kg	
Holloman Table 2	SW8270	S	.	302.782	ND	29.8	ug/kg	
Holloman Table 2	SW8270	S	.	244.725	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	209.651	ND	43.0	ug/kg	
Holloman Table 2	SW8270	S	.	362.543	ND	39.9	ug/kg	
Holloman Table 2	SW8270	S	.	593.244	ND	40.9	ug/kg	
Holloman Table 2	SW8270	S	.	214.701	ND	41.6	ug/kg	
Holloman Table 2	SW8270	S	.	161.347	ND	42.2	ug/kg	
Holloman Table 2	SW8270	S	.	171.593	ND	39.6	ug/kg	
Holloman Table 2	SW8270	S	.	575.225	ND	43.5	ug/kg	
Holloman Table 2	SW8270	S	.	269.780	ND	42.2	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Dibenzofuran ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	115.411	ND	22.5	ug/kg	
Holloman Table 2	SW8270	S	.	135.709	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	111.005	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	462.566	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	107.744	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	487.871	ND	24.3	ug/kg	
Holloman Table 2	SW8270	S	.	116.147	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	591.047	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	321.692	ND	22.2	ug/kg	
Holloman Table 2	SW8270	S	.	299.827	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	68.393	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	160.684	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	97.950	ND	22.3	ug/kg	

-------- SWMUs Group=129/178 Method=Organics Analyte=Dibenzofuran ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	403.608	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	469.274	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	565.795	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	269.432	ND	23.8	ug/kg	
Holloman Table 2	SW8270	S	.	545.316	ND	22.1	ug/kg	
Holloman Table 2	SW8270	S	.	496.530	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	507.749	ND	23.0	ug/kg	
Holloman Table 2	SW8270	S	.	158.583	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	55.941	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	309.897	ND	24.1	ug/kg	
Holloman Table 2	SW8270	S	.	259.003	ND	23.4	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Dibromochloromethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02020	ND	0.00103	mg/kg	
Holloman Table 2	SW8240	S	.	0.05357	ND	0.00107	mg/kg	
Holloman Table 2	SW8240	S	.	0.09043	ND	0.00101	mg/kg	
Holloman Table 2	SW8240	S	.	0.08753	ND	0.00196	mg/kg	
Holloman Table 2	SW8240	S	.	0.07672	ND	0.00159	mg/kg	
Holloman Table 2	SW8240	S	.	0.05056	ND	0.00165	mg/kg	

N = 7

-------- SWMUs Group=129/178 Method=Organics Analyte=Dibutylphthalate ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	67.129	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	207.718	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	386.106	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	162.151	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	367.168	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	246.272	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	205.293	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	503.523	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	446.672	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	595.484	ND	26.8	ug/kg	

-------- SWMUs Group=129/178 Method=Organics Analyte=Dibutylphthalate ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	540.537	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	464.698	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	165.085	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	361.734	ND	26.5	ug/kg	
Holloman Table 2	SW8270	S	.	392.074	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	562.878	ND	26.3	ug/kg	
Holloman Table 2	SW8270	S	.	337.777	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	89.022	ND	19.7	ug/kg	
Holloman Table 2	SW8270	S	.	128.571	ND	20.2	ug/kg	
Holloman Table 2	SW8270	S	.	185.947	ND	20.6	ug/kg	
Holloman Table 2	SW8270	S	.	224.761	ND	20.8	ug/kg	
Holloman Table 2	SW8270	S	.	194.045	ND	19.6	ug/kg	
Holloman Table 2	SW8270	S	.	474.443	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	254.402	ND	20.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Dicamba ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.017	0.017	DET	0.017	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Dichloroprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	0.04	0.04	DET	0.04	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Dieldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

-------- SWMUs Group=129/178 Method=Organics Analyte=Diethylphthalate ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	40.127	ND	15.4	ug/kg	
Holloman Table 2	SW8270	S	.	430.598	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	280.938	ND	15.0	ug/kg	
Holloman Table 2	SW8270	S	.	57.664	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	130.881	ND	15.9	ug/kg	
Holloman Table 2	SW8270	S	.	601.399	ND	16.7	ug/kg	
Holloman Table 2	SW8270	S	.	272.962	ND	15.2	ug/kg	
Holloman Table 2	SW8270	S	.	30.365	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	471.292	ND	15.2	ug/kg	
Holloman Table 2	SW8270	S	.	368.744	ND	17.6	ug/kg	
Holloman Table 2	SW8270	S	.	328.176	ND	15.4	ug/kg	
Holloman Table 2	SW8270	S	.	17.739	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	108.831	ND	15.2	ug/kg	
Holloman Table 2	SW8270	S	.	407.840	ND	17.3	ug/kg	
Holloman Table 2	SW8270	S	.	573.824	ND	15.5	ug/kg	
Holloman Table 2	SW8270	S	.	363.133	ND	17.2	ug/kg	
Holloman Table 2	SW8270	S	.	348.686	ND	10.9	ug/kg	
Holloman Table 2	SW8270	S	.	554.597	ND	10.1	ug/kg	
Holloman Table 2	SW8270	S	.	439.751	ND	10.4	ug/kg	
Holloman Table 2	SW8270	S	.	567.052	ND	10.5	ug/kg	
Holloman Table 2	SW8270	S	.	31.082	ND	10.7	ug/kg	
Holloman Table 2	SW8270	S	.	452.978	ND	10.0	ug/kg	
Holloman Table 2	SW8270	S	.	333.597	ND	11.0	ug/kg	
Holloman Table 2	SW8270	S	.	573.314	ND	10.7	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Dimethoate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.037	0.037	DET	0.037	mg/kg	

N = 1

-------- SWMUs Group=129/178 Method=Organics Analyte=Dimethylphthalate --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	492.806	ND	16.1	ug/kg	
Holloman Table 2	SW8270	S	.	380.089	ND	16.8	ug/kg	
Holloman Table 2	SW8270	S	.	28.030	ND	15.7	ug/kg	

-------- SWMUs Group=129/178 Method=Organics Analyte=Dimethylphthalate --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	464.414	ND	16.7	ug/kg	
Holloman Table 2	SW8270	S	.	284.434	ND	16.7	ug/kg	
Holloman Table 2	SW8270	S	.	165.784	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	285.777	ND	15.8	ug/kg	
Holloman Table 2	SW8270	S	.	563.670	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	340.177	ND	15.9	ug/kg	
Holloman Table 2	SW8270	S	.	534.237	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	435.261	ND	16.1	ug/kg	
Holloman Table 2	SW8270	S	.	535.825	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	404.024	ND	15.9	ug/kg	
Holloman Table 2	SW8270	S	.	362.540	ND	18.1	ug/kg	
Holloman Table 2	SW8270	S	.	62.710	ND	16.2	ug/kg	
Holloman Table 2	SW8270	S	.	95.981	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	531.872	ND	19.2	ug/kg	
Holloman Table 2	SW8270	S	.	119.999	ND	17.9	ug/kg	
Holloman Table 2	SW8270	S	.	566.204	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	269.400	ND	18.6	ug/kg	
Holloman Table 2	SW8270	S	.	121.309	ND	18.9	ug/kg	
Holloman Table 2	SW8270	S	.	29.078	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	347.596	ND	19.5	ug/kg	
Holloman Table 2	SW8270	S	.	253.852	ND	18.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Dinoseb ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	.0093	.0093	DET	.0093	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Disulfoton ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.037	0.037	DET	0.037	mg/kg	

N = 1

-------- MUs Group=129/178 Method=Organics Analyte=Endosulfan I ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Endosulfan II ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0019	.0019	DET	.0019	mg/kg	

N = 1

------- SWMUs Group=129/178 Method=Organics Analyte=Endosulfan Sulfate --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0031	.0031	DET	.0031	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Endrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

--------- SWMUs Group=129/178 Method=Organics Analyte=Endrin Aldehyde ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0012	.0012	DET	.0012	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Endrin Ket ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0031	.0031	DET	.0031	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.03594	ND	0.00192	mg/kg	
Holloman Table 2	SW8240	S	.	0.10861	ND	0.00199	mg/kg	
Holloman Table 2	SW8240	S	.	0.05256	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.05604	ND	0.00177	mg/kg	
Holloman Table 2	SW8240	S	.	0.02425	ND	0.00121	mg/kg	
Holloman Table 2	SW8240	S	.	0.07069	ND	0.00126	mg/kg	

N = 7

--------- SWMUs Group=129/178 Method=Organics Analyte=Ethyl parathion ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.028	0.028	DET	0.028	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Famphur ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.092	0.092	DET	0.092	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Fensulfothion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.28	0.28	DET	0.28	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	66.752	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	58.489	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	170.442	ND	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	137.423	ND	26.3	ug/kg	
Holloman Table 2	SW8270	S	.	104.156	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	69.639	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	397.822	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	122.002	ND	28.6	ug/kg	
Holloman Table 2	SW8270	S	.	170.149	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	459.873	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	77.607	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	443.629	ND	28.8	ug/kg	
Holloman Table 2	SW8270	S	.	37.873	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	375.164	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	7.864	ND	25.5	ug/kg	
Holloman Table 2	SW8270	S	.	318.844	ND	28.3	ug/kg	
Holloman Table 2	SW8270	S	.	473.021	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	491.606	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	388.020	ND	24.1	ug/kg	
Holloman Table 2	SW8270	S	.	357.664	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	279.506	ND	24.9	ug/kg	
Holloman Table 2	SW8270	S	.	317.344	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	125.846	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	553.692	ND	24.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Fluorene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	252.557	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	.	450.369	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	145.139	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	4.892	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	253.159	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	537.546	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	157.580	ND	20.7	ug/kg	
Holloman Table 2	SW8270	S	.	348.998	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	524.077	ND	20.8	ug/kg	
Holloman Table 2	SW8270	S	.	493.806	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	257.394	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	.	447.538	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	23.397	ND	20.8	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Fluorene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	519.644	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	579.973	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	380.710	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	569.996	ND	19.7	ug/kg	
Holloman Table 2	SW8270	S	.	167.596	ND	18.3	ug/kg	
Holloman Table 2	SW8270	S	.	166.357	ND	18.8	ug/kg	
Holloman Table 2	SW8270	S	.	543.278	ND	19.1	ug/kg	
Holloman Table 2	SW8270	S	.	552.877	ND	19.3	ug/kg	
Holloman Table 2	SW8270	S	.	596.230	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	149.010	ND	19.9	ug/kg	
Holloman Table 2	SW8270	S	.	368.672	ND	19.4	ug/kg	

N = 25

------ SWMUs Group=129/178 Method=Organics Analyte=Gross alpha radiation ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW9310	S	2.2	2.2	DET	3.8	pCi/g	

N = 1

------ SWMUs Group=129/178 Method=Organics Analyte=Gross beta radiation -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW9310	S	8.2	8.2	DET	5.6	pCi/g	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Heptachlor ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

------- SWMUs Group=129/178 Method=Organics Analyte=Heptachlor epoxide --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

-------- SWMUs Group=129/178 Method=Organics Analyte=Hexachlorobenzene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	188.933	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	18.245	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	.	496.167	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	150.715	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	13.453	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	394.653	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	489.451	ND	28.1	ug/kg	
Holloman Table 2	SW8270	S	.	342.705	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	538.595	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	576.098	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	.	477.975	ND	28.5	ug/kg	
Holloman Table 2	SW8270	S	.	165.892	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	341.284	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	147.666	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	490.260	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	176.762	ND	31.8	ug/kg	
Holloman Table 2	SW8270	S	.	481.121	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	609.193	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	484.691	ND	22.5	ug/kg	
Holloman Table 2	SW8270	S	.	165.392	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	463.412	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	328.503	ND	21.8	ug/kg	
Holloman Table 2	SW8270	S	.	152.960	ND	23.9	ug/kg	
Holloman Table 2	SW8270	S	.	211.458	ND	23.3	ug/kg	

N = 25

------- SWMUs Group=129/178 Method=Organics Analyte=Hexachlorobutadiene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	605.343	ND	29.8	ug/kg	
Holloman Table 2	SW8270	S	.	208.448	ND	31.0	ug/kg	
Holloman Table 2	SW8270	S	.	440.173	ND	29.0	ug/kg	

------- SWMUs Group=129/178 Method=Organics Analyte=Hexachlorobutadiene -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	375.216	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	175.828	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	530.513	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	452.725	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	33.700	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	240.081	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	94.170	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	583.495	ND	29.7	ug/kg	
Holloman Table 2	SW8270	S	.	209.815	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	.	142.335	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	.	97.407	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	269.299	ND	30.0	ug/kg	
Holloman Table 2	SW8270	S	.	463.871	ND	33.3	ug/kg	
Holloman Table 2	SW8270	S	.	415.477	ND	44.3	ug/kg	
Holloman Table 2	SW8270	S	.	212.329	ND	41.1	ug/kg	
Holloman Table 2	SW8270	S	.	595.453	ND	42.1	ug/kg	
Holloman Table 2	SW8270	S	.	112.362	ND	42.8	ug/kg	
Holloman Table 2	SW8270	S	.	406.993	ND	43.4	ug/kg	
Holloman Table 2	SW8270	S	.	165.876	ND	40.8	ug/kg	
Holloman Table 2	SW8270	S	.	384.001	ND	44.8	ug/kg	
Holloman Table 2	SW8270	S	.	197.609	ND	43.5	ug/kg	

N = 25

---- SWMUs Group=129/178 Method=Organics Analyte=Hexachlorocyclopentadiene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	352.199	ND	86.2	ug/kg	
Holloman Table 2	SW8270	S	.	217.255	ND	89.7	ug/kg	
Holloman Table 2	SW8270	S	.	418.530	ND	83.9	ug/kg	
Holloman Table 2	SW8270	S	.	601.971	ND	89.2	ug/kg	
Holloman Table 2	SW8270	S	.	80.689	ND	89.1	ug/kg	
Holloman Table 2	SW8270	S	.	39.682	ND	93.1	ug/kg	
Holloman Table 2	SW8270	S	.	439.938	ND	84.8	ug/kg	
Holloman Table 2	SW8270	S	.	111.665	ND	97.2	ug/kg	
Holloman Table 2	SW8270	S	.	247.094	ND	85.2	ug/kg	
Holloman Table 2	SW8270	S	.	570.705	ND	98.1	ug/kg	
Holloman Table 2	SW8270	S	.	108.992	ND	86.0	ug/kg	
Holloman Table 2	SW8270	S	.	302.295	ND	97.9	ug/kg	
Holloman Table 2	SW8270	S	.	125.017	ND	85.3	ug/kg	
Holloman Table 2	SW8270	S	.	57.760	ND	96.9	ug/kg	
Holloman Table 2	SW8270	S	.	120.639	ND	86.6	ug/kg	
Holloman Table 2	SW8270	S	.	405.385	ND	96.2	ug/kg	

---- SWMUs Group=129/178 Method=Organics Analyte=Hexachlorocyclopentadiene ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	388.958	ND	51.1	ug/kg	
Holloman Table 2	SW8270	S	.	88.646	ND	47.4	ug/kg	
Holloman Table 2	SW8270	S	.	94.367	ND	48.6	ug/kg	
Holloman Table 2	SW8270	S	.	564.038	ND	49.4	ug/kg	
Holloman Table 2	SW8270	S	.	419.387	ND	50.1	ug/kg	
Holloman Table 2	SW8270	S	.	240.951	ND	47.1	ug/kg	
Holloman Table 2	SW8270	S	.	445.062	ND	51.7	ug/kg	
Holloman Table 2	SW8270	S	.	456.655	ND	50.2	ug/kg	

N = 25

-------- SWMUs Group=129/178 Method=Organics Analyte=Hexachloroethane ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	365.649	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	.	164.037	ND	35.5	ug/kg	
Holloman Table 2	SW8270	S	.	449.854	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	592.134	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	363.688	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	174.098	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	55.972	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	187.702	ND	38.5	ug/kg	
Holloman Table 2	SW8270	S	.	441.955	ND	33.7	ug/kg	
Holloman Table 2	SW8270	S	.	59.908	ND	38.8	ug/kg	
Holloman Table 2	SW8270	S	.	529.442	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	151.226	ND	38.8	ug/kg	
Holloman Table 2	SW8270	S	.	468.381	ND	33.7	ug/kg	
Holloman Table 2	SW8270	S	.	230.728	ND	38.4	ug/kg	
Holloman Table 2	SW8270	S	.	466.681	ND	34.3	ug/kg	
Holloman Table 2	SW8270	S	.	334.355	ND	38.1	ug/kg	
Holloman Table 2	SW8270	S	.	605.117	ND	23.7	ug/kg	
Holloman Table 2	SW8270	S	.	118.810	ND	22.0	ug/kg	
Holloman Table 2	SW8270	S	.	3.252	ND	22.6	ug/kg	
Holloman Table 2	SW8270	S	.	417.547	NO	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	490.961	ND	23.3	ug/kg	
Holloman Table 2	SW8270	S	.	501.580	ND	21.9	ug/kg	
Holloman Table 2	SW8270	S	.	580.639	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	588.308	ND	23.3	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	E418.1	S	62.00	62.00	DET	12.5	mg/kg	
Holloman Table 2	E418.1	S	-4.96	-4.96	DET	30.4	mg/kg	J
Holloman Table 2	E418.1	S	-5.17	-5.17	DET	31.6	mg/kg	J
Holloman Table 2	E418.1	S	-4.84	-4.84	DET	29.6	mg/kg	J
Holloman Table 2	E418.1	S	-4.27	-4.27	DET	31.6	mg/kg	J
Holloman Table 2	E418.1	S	-1.05	-1.05	DET	31.4	mg/kg	J
Holloman Table 2	E418.1	S	-1.10	-1.10	DET	33.0	mg/kg	J
Holloman Table 2	E418.1	S	2.17	2.17	DET	30.0	mg/kg	J
Holloman Table 2	E418.1	S	2.48	2.48	DET	34.3	mg/kg	J
Holloman Table 2	E418.1	S	2.17	2.17	DET	30.0	mg/kg	J
Holloman Table 2	E418.1	S	-1.17	-1.17	DET	34.6	mg/kg	J
Holloman Table 2	E418.1	S	-2.71	-2.71	DET	30.3	mg/kg	J
Holloman Table 2	E418.1	S	-3.09	-3.09	DET	34.7	mg/kg	J
Holloman Table 2	E418.1	S	23.10	23.10	DET	30.1	mg/kg	BJ
Holloman Table 2	E418.1	S	4.27	4.27	DET	34.2	mg/kg	BJ
Holloman Table 2	E418.1	S	-2.73	-2.73	DET	30.6	mg/kg	J
Holloman Table 2	E418.1	S	7.88	7.88	DET	34.0	mg/kg	BJ
Holloman Table 2	E418.1	S	6.30	6.30	DET	31.9	mg/kg	J
Holloman Table 2	E418.1	S	2.70	2.70	DET	29.7	mg/kg	J
Holloman Table 2	E418.1	S	2.20	2.20	DET	30.5	mg/kg	J
Holloman Table 2	E418.1	S	-1.05	-1.05	DET	31.1	mg/kg	J
Holloman Table 2	E418.1	S	2.27	2.27	DET	31.4	mg/kg	J
Holloman Table 2	E418.1	S	-4.12	-4.12	DET	29.4	mg/kg	J
Holloman Table 2	E418.1	S	-1.09	-1.09	DET	32.3	mg/kg	J
Holloman Table 2	E418.1	S	-4.42	-4.42	DET	31.6	mg/kg	J

N = 25

----- SWMUs Group=129/178 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	521.605	ND	21.5	ug/kg	
Holloman Table 2	SW8270	S	.	358.089	ND	22.4	ug/kg	
Holloman Table 2	SW8270	S	.	301.589	ND	20.9	ug/kg	
Holloman Table 2	SW8270	S	.	408.405	ND	22.2	ug/kg	
Holloman Table 2	SW8270	S	.	603.080	ND	22.2	ug/kg	
Holloman Table 2	SW8270	S	.	235.820	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	456.493	ND	21.1	ug/kg	
Holloman Table 2	SW8270	S	.	155.544	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	3.464	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	130.722	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	.	102.307	ND	21.4	ug/kg	
Holloman Table 2	SW8270	S	.	288.795	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	111.930	ND	21.3	ug/kg	

----- SWMUs Group=129/178 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	163.430	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	559.470	ND	21.6	ug/kg	
Holloman Table 2	SW8270	S	.	365.415	ND	24.0	ug/kg	
Holloman Table 2	SW8270	S	.	116.705	ND	37.9	ug/kg	
Holloman Table 2	SW8270	S	.	388.124	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	539.269	ND	36.1	ug/kg	
Holloman Table 2	SW8270	S	.	419.575	ND	36.7	ug/kg	
Holloman Table 2	SW8270	S	.	267.569	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	221.151	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	116.752	ND	38.4	ug/kg	
Holloman Table 2	SW8270	S	.	526.697	ND	37.3	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Isophorone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	41.253	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	578.778	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	587.657	ND	30.1	ug/kg	
Holloman Table 2	SW8270	S	.	43.728	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	493.569	ND	32.0	ug/kg	
Holloman Table 2	SW8270	S	.	306.393	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	409.645	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	206.093	ND	34.9	ug/kg	
Holloman Table 2	SW8270	S	.	56.438	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	534.319	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	157.982	ND	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	489.301	ND	35.2	ug/kg	
Holloman Table 2	SW8270	S	.	183.485	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	428.016	ND	34.8	ug/kg	
Holloman Table 2	SW8270	S	.	5.289	ND	31.1	ug/kg	
Holloman Table 2	SW8270	S	.	496.395	ND	34.5	ug/kg	
Holloman Table 2	SW8270	S	.	474.705	ND	13.9	ug/kg	
Holloman Table 2	SW8270	S	.	141.111	ND	12.9	ug/kg	
Holloman Table 2	SW8270	S	.	487.544	ND	13.2	ug/kg	
Holloman Table 2	SW8270	S	.	257.277	ND	13.4	ug/kg	
Holloman Table 2	SW8270	S	.	188.285	ND	13.6	ug/kg	
Holloman Table 2	SW8270	S	.	348.864	ND	12.8	ug/kg	
Holloman Table 2	SW8270	S	.	264.110	ND	14.0	ug/kg	
Holloman Table 2	SW8270	S	.	221.649	ND	13.6	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=MCPA ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	15	15	DET	15	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=MCPP ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8150	S	12	12	DET	12	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Methoxychlor ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0031	.0031	DET	.0031	mg/kg	

N = 1

--------- SWMUs Group=129/178 Method=Organics Analyte=Methyl azinphos ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.28	0.28	DET	0.28	mg/kg	

N = 1

------- SWMUs Group=129/178 Method=Organics Analyte=Methyl ethyl ketone -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.50000	2.50000	DET	2.50000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00008	ND	0.00395	mg/kg	
Holloman Table 2	SW8240	S	.	0.00520	ND	0.00410	mg/kg	
Holloman Table 2	SW8240	S	0.00617	0.00617	DET	0.00386	mg/kg	
Holloman Table 2	SW8240	S	.	0.00335	ND	0.00163	mg/kg	
Holloman Table 2	SW8240	S	.	0.00014	ND	0.00891	mg/kg	
Holloman Table 2	SW8240	S	.	0.00032	ND	0.00926	mg/kg	

N = 7

-------- SWMUs Group=129/178 Method=Organics Analyte=Methyl parathion ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	.0055	.0055	DET	.0055	mg/kg	

N = 1

------- SWMUs Group=129/178 Method=Organics Analyte=Methylene Chloride --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.31000	0.31000	DET	0.12000	mg/kg	B@
Holloman Table 2	SW8240	S	.	0.00087	ND	0.00167	mg/kg	
Holloman Table 2	SW8240	S	.	0.00008	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.00094	ND	0.00163	mg/kg	
Holloman Table 2	SW8240	S	0.00359	0.00359	DET	0.00279	mg/kg	B
Holloman Table 2	SW8240	S	0.00099	0.00099	DET	0.00263	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00245	0.00245	DET	0.00273	mg/kg	BJ

N = 7

--- SWMUs Group=129/178 Method=Organics Analyte=N-Nitroso-di-n-propylamine ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	447.967	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	537.614	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	536.449	ND	17.0	ug/kg	
Holloman Table 2	SW8270	S	.	183.393	ND	18.1	ug/kg	
Holloman Table 2	SW8270	S	.	291.127	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	522.423	ND	18.8	ug/kg	
Holloman Table 2	SW8270	S	.	266.164	ND	17.2	ug/kg	
Holloman Table 2	SW8270	S	.	358.140	ND	19.7	ug/kg	
Holloman Table 2	SW8270	S	.	224.968	ND	17.2	ug/kg	
Holloman Table 2	SW8270	S	.	34.984	ND	19.9	ug/kg	
Holloman Table 2	SW8270	S	.	111.962	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	387.382	ND	19.8	ug/kg	
Holloman Table 2	SW8270	S	.	175.399	ND	17.3	ug/kg	
Holloman Table 2	SW8270	S	.	373.309	ND	19.6	ug/kg	
Holloman Table 2	SW8270	S	.	603.839	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	352.617	ND	19.5	ug/kg	
Holloman Table 2	SW8270	S	.	488.066	ND	26.5	ug/kg	
Holloman Table 2	SW8270	S	.	108.560	ND	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	340.785	ND	25.2	ug/kg	
Holloman Table 2	SW8270	S	.	365.854	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	181.069	ND	26.0	ug/kg	

--- SWMUs Group=129/178 Method=Organics Analyte=N-Nitroso-di-n-propylamine ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	472.725	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	151.794	ND	26.8	ug/kg	
Holloman Table 2	SW8270	S	.	463.702	ND	26.0	ug/kg	

N = 25

----- SWMUs Group=129/178 Method=Organics Analyte=N-Nitrosodiphenylamine ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610	DET	610	ug/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Naphthalene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	479.779	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	604.985	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	34.599	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	146.098	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	503.774	ND	26.5	ug/kg	
Holloman Table 2	SW8270	S	.	395.788	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	220.075	ND	25.2	ug/kg	
Holloman Table 2	SW8270	S	.	363.895	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	327.455	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	61.356	ND	29.2	ug/kg	
Holloman Table 2	SW8270	S	.	605.726	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	457.633	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	462.198	ND	25.4	ug/kg	
Holloman Table 2	SW8270	S	.	49.965	ND	28.8	ug/kg	
Holloman Table 2	SW8270	S	.	302.890	ND	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	602.816	ND	28.6	ug/kg	
Holloman Table 2	SW8270	S	.	276.084	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	34.449	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	198.965	ND	31.6	ug/kg	
Holloman Table 2	SW8270	S	.	522.148	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	105.920	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	.	334.986	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	389.778	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	520.024	ND	32.6	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=Nitrobenzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	423.049	ND	46.1	ug/kg	
Holloman Table 2	SW8270	S	.	512.073	ND	48.0	ug/kg	
Holloman Table 2	SW8270	S	.	592.412	ND	44.9	ug/kg	
Holloman Table 2	SW8270	S	.	89.954	ND	47.8	ug/kg	
Holloman Table 2	SW8270	S	.	268.205	ND	47.7	ug/kg	
Holloman Table 2	SW8270	S	.	111.735	ND	49.8	ug/kg	
Holloman Table 2	SW8270	S	.	127.655	ND	45.4	ug/kg	
Holloman Table 2	SW8270	S	.	228.653	ND	52.0	ug/kg	
Holloman Table 2	SW8270	S	.	224.152	ND	45.6	ug/kg	
Holloman Table 2	SW8270	S	.	338.429	ND	52.5	ug/kg	
Holloman Table 2	SW8270	S	.	410.263	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	598.868	ND	52.4	ug/kg	
Holloman Table 2	SW8270	S	.	459.628	ND	45.6	ug/kg	
Holloman Table 2	SW8270	S	.	71.386	ND	51.9	ug/kg	
Holloman Table 2	SW8270	S	.	170.316	ND	46.3	ug/kg	
Holloman Table 2	SW8270	S	.	562.677	ND	51.5	ug/kg	
Holloman Table 2	SW8270	S	.	170.714	ND	18.9	ug/kg	
Holloman Table 2	SW8270	S	.	478.195	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	368.865	ND	17.9	ug/kg	
Holloman Table 2	SW8270	S	.	105.485	ND	18.2	ug/kg	
Holloman Table 2	SW8270	S	.	560.768	ND	18.5	ug/kg	
Holloman Table 2	SW8270	S	.	253.346	ND	17.4	ug/kg	
Holloman Table 2	SW8270	S	.	230.884	ND	19.1	ug/kg	
Holloman Table 2	SW8270	S	.	428.172	ND	18.5	ug/kg	

N = 25

--------- SWMUs Group=129/178 Method=Organics Analyte=Oil and grease ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	E413.2	S	36	36	DET	15	mg/kg	@

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Organolead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	DOHS	S	2.3	2.3	DET	2.3	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1016 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0062	.0062	DET	.0062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1221 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.012	0.012	DET	0.012	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1232 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.012	0.012	DET	0.012	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1242 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0062	.0062	DET	.0062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1248 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.0062	.0062	DET	.0062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1254 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.012	0.012	DET	0.012	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=PCB-1260 ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.012	0.012	DET	0.012	mg/kg	

N = 1

-------- SWMUs Group=129/178 Method=Organics Analyte=Pentachlorophenol --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	3100	3100.00	DET	3100.0	ug/kg	
Holloman Table 2	SW8270	S	.	459.78	ND	42.9	ug/kg	
Holloman Table 2	SW8270	S	.	1825.49	ND	44.6	ug/kg	
Holloman Table 2	SW8270	S	.	1930.70	ND	41.8	ug/kg	
Holloman Table 2	SW8270	S	.	2812.55	ND	44.4	ug/kg	
Holloman Table 2	SW8270	S	.	748.84	ND	44.4	ug/kg	
Holloman Table 2	SW8270	S	.	923.05	ND	46.4	ug/kg	
Holloman Table 2	SW8270	S	.	622.90	ND	42.2	ug/kg	
Holloman Table 2	SW8270	S	.	822.28	ND	48.4	ug/kg	
Holloman Table 2	SW8270	S	.	1664.00	ND	42.4	ug/kg	
Holloman Table 2	SW8270	S	.	238.26	ND	48.8	ug/kg	
Holloman Table 2	SW8270	S	.	1128.19	ND	42.8	ug/kg	
Holloman Table 2	SW8270	S	.	955.84	ND	48.7	ug/kg	
Holloman Table 2	SW8270	S	.	1169.52	ND	42.4	ug/kg	
Holloman Table 2	SW8270	S	.	2045.30	ND	48.2	ug/kg	
Holloman Table 2	SW8270	S	.	776.82	ND	43.1	ug/kg	
Holloman Table 2	SW8270	S	.	1719.05	ND	47.9	ug/kg	
Holloman Table 2	SW8270	S	.	1881.10	ND	40.9	ug/kg	
Holloman Table 2	SW8270	S	.	1409.46	ND	38.0	ug/kg	
Holloman Table 2	SW8270	S	.	394.25	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	2753.69	ND	39.6	ug/kg	
Holloman Table 2	SW8270	S	.	1833.76	ND	40.1	ug/kg	
Holloman Table 2	SW8270	S	.	1928.24	ND	37.7	ug/kg	
Holloman Table 2	SW8270	S	.	1974.83	ND	41.4	ug/kg	
Holloman Table 2	SW8270	S	.	130.07	ND	40.2	ug/kg	

N = 25

-------- SWMUs Group=129/178 Method=Organics Analyte=Percent moisture ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	D2216	S	19	19	DET	.	percent	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	375.221	ND	32.9	ug/kg	
Holloman Table 2	SW8270	S	.	421.542	ND	34.3	ug/kg	
Holloman Table 2	SW8270	S	.	415.891	ND	32.1	ug/kg	
Holloman Table 2	SW8270	S	.	321.953	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	.	340.261	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	.	200.692	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	27.978	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	.	518.636	ND	37.1	ug/kg	
Holloman Table 2	SW8270	S	.	353.097	ND	32.6	ug/kg	
Holloman Table 2	SW8270	S	.	335.161	ND	37.5	ug/kg	
Holloman Table 2	SW8270	S	.	147.626	ND	32.9	ug/kg	
Holloman Table 2	SW8270	S	.	299.016	ND	37.4	ug/kg	
Holloman Table 2	SW8270	S	.	492.258	ND	32.6	ug/kg	
Holloman Table 2	SW8270	S	.	224.054	ND	37.0	ug/kg	
Holloman Table 2	SW8270	S	.	20.657	ND	33.1	ug/kg	
Holloman Table 2	SW8270	S	.	387.032	ND	36.8	ug/kg	
Holloman Table 2	SW8270	S	.	86.036	ND	28.4	ug/kg	
Holloman Table 2	SW8270	S	.	529.277	ND	26.3	ug/kg	
Holloman Table 2	SW8270	S	.	240.709	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	.	600.395	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	.	313.201	ND	27.8	ug/kg	
Holloman Table 2	SW8270	S	.	397.640	ND	26.1	ug/kg	
Holloman Table 2	SW8270	S	.	88.945	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	487.406	ND	27.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Phenol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	559.151	ND	13.5	ug/kg	
Holloman Table 2	SW8270	S	.	152.124	ND	14.0	ug/kg	
Holloman Table 2	SW8270	S	.	309.036	ND	13.1	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Phenol ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	153.421	ND	14.0	ug/kg	
Holloman Table 2	SW8270	S	.	42.509	ND	13.9	ug/kg	
Holloman Table 2	SW8270	S	.	461.356	ND	14.6	ug/kg	
Holloman Table 2	SW8270	S	.	215.914	ND	13.3	ug/kg	
Holloman Table 2	SW8270	S	.	413.555	ND	15.2	ug/kg	
Holloman Table 2	SW8270	S	.	178.316	ND	13.3	ug/kg	
Holloman Table 2	SW8270	S	.	22.313	ND	15.3	ug/kg	
Holloman Table 2	SW8270	S	.	4.504	ND	13.4	ug/kg	
Holloman Table 2	SW8270	S	.	0.114	ND	15.3	ug/kg	
Holloman Table 2	SW8270	S	.	71.333	ND	13.3	ug/kg	
Holloman Table 2	SW8270	S	.	459.126	ND	15.1	ug/kg	
Holloman Table 2	SW8270	S	.	373.739	ND	13.5	ug/kg	
Holloman Table 2	SW8270	S	.	474.557	ND	15.0	ug/kg	
Holloman Table 2	SW8270	S	.	498.060	ND	16.0	ug/kg	
Holloman Table 2	SW8270	S	.	473.280	ND	14.9	ug/kg	
Holloman Table 2	SW8270	S	.	574.341	ND	15.2	ug/kg	
Holloman Table 2	SW8270	S	.	37.597	ND	15.5	ug/kg	
Holloman Table 2	SW8270	S	.	242.384	ND	15.7	ug/kg	
Holloman Table 2	SW8270	S	.	596.257	ND	14.8	ug/kg	
Holloman Table 2	SW8270	S	.	540.991	ND	16.2	ug/kg	
Holloman Table 2	SW8270	S	.	483.313	ND	15.7	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Phorate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.028	0.028	DET	0.028	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	157.692	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	169.048	ND	18.8	ug/kg	
Holloman Table 2	SW8270	S	.	473.423	ND	17.6	ug/kg	
Holloman Table 2	SW8270	S	.	328.558	ND	18.7	ug/kg	
Holloman Table 2	SW8270	S	.	201.429	ND	18.7	ug/kg	
Holloman Table 2	SW8270	S	.	120.970	ND	19.5	ug/kg	

---------- SWMUs Group=129/178 Method=Organics Analyte=Pyrene ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	598.665	ND	17.8	ug/kg	
Holloman Table 2	SW8270	S	.	207.506	ND	20.4	ug/kg	
Holloman Table 2	SW8270	S	.	598.502	ND	17.8	ug/kg	
Holloman Table 2	SW8270	S	.	152.027	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	229.350	ND	18.0	ug/kg	
Holloman Table 2	SW8270	S	.	380.052	ND	20.5	ug/kg	
Holloman Table 2	SW8270	S	.	328.523	ND	17.9	ug/kg	
Holloman Table 2	SW8270	S	.	306.729	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	191.175	ND	18.1	ug/kg	
Holloman Table 2	SW8270	S	.	415.175	ND	20.1	ug/kg	
Holloman Table 2	SW8270	S	.	428.094	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	13.566	ND	28.2	ug/kg	
Holloman Table 2	SW8270	S	.	442.489	ND	28.9	ug/kg	
Holloman Table 2	SW8270	S	.	337.819	ND	29.4	ug/kg	
Holloman Table 2	SW8270	S	.	101.974	ND	29.8	ug/kg	
Holloman Table 2	SW8270	S	.	35.721	ND	28.0	ug/kg	
Holloman Table 2	SW8270	S	.	430.873	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	.	86.869	ND	29.9	ug/kg	

N = 25

---------- SWMUs Group=129/178 Method=Organics Analyte=Ronnel ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.055	0.055	DET	0.055	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Styrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.00092	ND	0.00203	mg/kg	
Holloman Table 2	SW8240	S	.	0.11489	ND	0.00211	mg/kg	
Holloman Table 2	SW8240	S	.	0.08977	ND	0.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.11607	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.08183	ND	0.00226	mg/kg	
Holloman Table 2	SW8240	S	.	0.00135	ND	0.00235	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Sulfotepp ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.018	0.018	DET	0.018	mg/kg	

N = 1

-------- SWMUs Group=129/178 Method=Organics Analyte=Tetrachloroethene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02415	ND	0.00304	mg/kg	
Holloman Table 2	SW8240	S	.	0.04468	ND	0.00316	mg/kg	
Holloman Table 2	SW8240	S	.	0.09742	ND	0.00298	mg/kg	
Holloman Table 2	SW8240	S	.	0.03773	ND	0.00508	mg/kg	
Holloman Table 2	SW8240	S	.	0.07231	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	.	0.07309	ND	0.00196	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Thionazin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.18	0.18	DET	0.18	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.012	0.012000	DET	0.12000	mg/kg	JB
Holloman Table 2	SW8240	S	.	0.000310	ND	0.00180	mg/kg	
Holloman Table 2	SW8240	S	.	0.008249	ND	0.00187	mg/kg	
Holloman Table 2	SW8240	S	.	0.011695	ND	0.00176	mg/kg	
Holloman Table 2	SW8240	S	.	0.008384	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.009393	ND	0.00250	mg/kg	
Holloman Table 2	SW8240	S	.	0.006638	ND	0.00260	mg/kg	

N = 7

------ SWMUs Group=129/178 Method=Organics Analyte=Total organic carbon -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW9060	S	0.21	0.21	DET	0.11	percent	@

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=Toxaphene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	0.031	0.031	DET	0.031	mg/kg	

N = 1

--- SWMUs Group=129/178 Method=Organics Analyte=Tribromomethane(Bromoform) ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07141	ND	0.00210	mg/kg	
Holloman Table 2	SW8240	S	.	0.01541	ND	0.00218	mg/kg	
Holloman Table 2	SW8240	S	.	0.06716	ND	0.00206	mg/kg	
Holloman Table 2	SW8240	S	.	0.03248	ND	0.00162	mg/kg	
Holloman Table 2	SW8240	S	.	0.11712	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	.	0.04657	ND	0.00196	mg/kg	

N = 7

--------- SWMUs Group=129/178 Method=Organics Analyte=Trichloroethene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.11693	ND	0.00336	mg/kg	
Holloman Table 2	SW8240	S	.	0.11763	ND	0.00348	mg/kg	
Holloman Table 2	SW8240	S	.	0.05127	ND	0.00328	mg/kg	
Holloman Table 2	SW8240	S	.	0.01417	ND	0.00519	mg/kg	
Holloman Table 2	SW8240	S	.	0.05372	ND	0.00402	mg/kg	
Holloman Table 2	SW8240	S	.	0.05098	ND	0.00417	mg/kg	

N = 7

--------- s Group=129/178 Method=Organics Analyte=Vinyl Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25000	DET	0.25000	mg/kg	
Holloman Table 2	SW8240	S	.	0.07491	ND	0.00341	mg/kg	
Holloman Table 2	SW8240	S	.	0.02754	ND	0.00353	mg/kg	
Holloman Table 2	SW8240	S	.	0.16807	ND	0.00333	mg/kg	
Holloman Table 2	SW8240	S	.	0.06574	ND	0.00221	mg/kg	
Holloman Table 2	SW8240	S	.	0.22352	ND	0.00314	mg/kg	
Holloman Table 2	SW8240	S	.	0.05381	ND	0.00326	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=Vinyl acetate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.11330	ND	0.00310	mg/kg	
Holloman Table 2	SW8240	S	.	0.11575	ND	0.00322	mg/kg	
Holloman Table 2	SW8240	S	.	0.04835	ND	0.00304	mg/kg	
Holloman Table 2	SW8240	S	.	0.05079	ND	0.01170	mg/kg	
Holloman Table 2	SW8240	S	.	0.07146	ND	0.01200	mg/kg	
Holloman Table 2	SW8240	S	.	0.09033	ND	0.01240	mg/kg	

N = 7

--------- SWMUs Group=129/178 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.05680	ND	0.00390	mg/kg	
Holloman Table 2	SW8240	S	.	0.01510	ND	0.00405	mg/kg	
Holloman Table 2	SW8240	S	.	0.11140	ND	0.00381	mg/kg	
Holloman Table 2	SW8240	S	.	0.02168	ND	0.00389	mg/kg	
Holloman Table 2	SW8240	S	.	0.02364	ND	0.00563	mg/kg	
Holloman Table 2	SW8240	S	.	0.00355	ND	0.00585	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=alpha-BH --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=beta-BHC ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

--- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Chloroethoxy)methane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	232.513	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	.	343.359	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	184.939	ND	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	414.897	ND	35.1	ug/kg	
Holloman Table 2	SW8270	S	.	16.300	ND	35.1	ug/kg	
Holloman Table 2	SW8270	S	.	434.682	ND	36.6	ug/kg	
Holloman Table 2	SW8270	S	.	353.392	ND	33.4	ug/kg	
Holloman Table 2	SW8270	S	.	292.095	ND	38.2	ug/kg	
Holloman Table 2	SW8270	S	.	526.090	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	92.973	ND	38.6	ug/kg	
Holloman Table 2	SW8270	S	.	373.401	ND	33.8	ug/kg	
Holloman Table 2	SW8270	S	.	211.456	ND	38.5	ug/kg	
Holloman Table 2	SW8270	S	.	370.025	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	.	344.687	ND	38.1	ug/kg	
Holloman Table 2	SW8270	S	.	479.680	ND	34.1	ug/kg	
Holloman Table 2	SW8270	S	.	521.535	ND	37.8	ug/kg	
Holloman Table 2	SW8270	S	.	97.816	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	.	52.813	ND	25.2	ug/kg	
Holloman Table 2	SW8270	S	.	121.196	ND	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	41.838	ND	26.3	ug/kg	
Holloman Table 2	SW8270	S	.	187.501	ND	26.7	ug/kg	
Holloman Table 2	SW8270	S	.	313.424	ND	25.0	ug/kg	
Holloman Table 2	SW8270	S	.	165.033	ND	27.5	ug/kg	
Holloman Table 2	SW8270	S	.	520.484	ND	26.7	ug/kg	

N = 25

----- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Chloroethyl)ether -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	504.189	ND	37.4	ug/kg	
Holloman Table 2	SW8270	S	.	291.090	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	591.729	ND	36.4	ug/kg	
Holloman Table 2	SW8270	S	.	592.769	ND	38.7	ug/kg	
Holloman Table 2	SW8270	S	.	540.390	ND	38.7	ug/kg	
Holloman Table 2	SW8270	S	.	313.807	ND	40.4	ug/kg	
Holloman Table 2	SW8270	S	.	207.095	ND	36.8	ug/kg	
Holloman Table 2	SW8270	S	.	191.658	ND	42.2	ug/kg	
Holloman Table 2	SW8270	S	.	101.810	ND	36.9	ug/kg	
Holloman Table 2	SW8270	S	.	395.388	ND	42.6	ug/kg	
Holloman Table 2	SW8270	S	.	259.961	ND	37.3	ug/kg	
Holloman Table 2	SW8270	S	.	365.690	ND	42.5	ug/kg	
Holloman Table 2	SW8270	S	.	452.874	ND	37.0	ug/kg	
Holloman Table 2	SW8270	S	.	201.456	ND	42.0	ug/kg	
Holloman Table 2	SW8270	S	.	340.627	ND	37.6	ug/kg	
Holloman Table 2	SW8270	S	.	129.281	ND	41.7	ug/kg	
Holloman Table 2	SW8270	S	.	406.262	ND	20.9	ug/kg	
Holloman Table 2	SW8270	S	.	247.202	ND	19.4	ug/kg	
Holloman Table 2	SW8270	S	.	442.623	ND	19.9	ug/kg	
Holloman Table 2	SW8270	S	.	415.096	ND	20.3	ug/kg	
Holloman Table 2	SW8270	S	.	592.775	ND	20.6	ug/kg	
Holloman Table 2	SW8270	S	.	492.085	ND	19.3	ug/kg	
Holloman Table 2	SW8270	S	.	531.001	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	344.477	ND	20.6	ug/kg	

N = 25

--- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Chloroisopropyl)ether ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610.0	ug/kg	
Holloman Table 2	SW8270	S	.	301.395	ND	46.1	ug/kg	
Holloman Table 2	SW8270	S	.	486.955	ND	48.0	ug/kg	
Holloman Table 2	SW8270	S	.	348.942	ND	44.9	ug/kg	
Holloman Table 2	SW8270	S	.	203.558	ND	47.8	ug/kg	
Holloman Table 2	SW8270	S	.	607.656	ND	47.7	ug/kg	
Holloman Table 2	SW8270	S	.	345.912	ND	49.8	ug/kg	
Holloman Table 2	SW8270	S	.	312.696	ND	45.4	ug/kg	
Holloman Table 2	SW8270	S	.	376.915	ND	52.0	ug/kg	
Holloman Table 2	SW8270	S	.	347.755	ND	45.6	ug/kg	
Holloman Table 2	SW8270	S	.	514.091	ND	52.5	ug/kg	
Holloman Table 2	SW8270	S	.	528.188	ND	46.0	ug/kg	
Holloman Table 2	SW8270	S	.	233.747	ND	52.4	ug/kg	
Holloman Table 2	SW8270	S	.	544.611	ND	45.6	ug/kg	

--- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Chloroisopropyl)ether ---
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	21.991	ND	51.9	ug/kg	
Holloman Table 2	SW8270	S	.	576.339	ND	46.3	ug/kg	
Holloman Table 2	SW8270	S	.	404.773	ND	51.5	ug/kg	
Holloman Table 2	SW8270	S	.	48.039	ND	19.0	ug/kg	
Holloman Table 2	SW8270	S	.	156.387	ND	17.7	ug/kg	
Holloman Table 2	SW8270	S	.	18.272	ND	18.1	ug/kg	
Holloman Table 2	SW8270	S	.	65.360	ND	18.4	ug/kg	
Holloman Table 2	SW8270	S	.	229.328	ND	18.7	ug/kg	
Holloman Table 2	SW8270	S	.	200.920	ND	17.5	ug/kg	
Holloman Table 2	SW8270	S	.	68.484	ND	19.2	ug/kg	
Holloman Table 2	SW8270	S	.	160.614	ND	18.7	ug/kg	

N = 25

--- SWMUs Group=129/178 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	30.0	30.0000	DET	610.0	ug/kg	J
Holloman Table 2	SW8270	S	.	18.0844	ND	60.3	ug/kg	
Holloman Table 2	SW8270	S	.	10.0255	ND	62.8	ug/kg	
Holloman Table 2	SW8270	S	.	29.2503	ND	58.7	ug/kg	
Holloman Table 2	SW8270	S	.	21.4199	ND	62.4	ug/kg	
Holloman Table 2	SW8270	S	.	22.8007	ND	62.4	ug/kg	
Holloman Table 2	SW8270	S	.	0.5062	ND	65.2	ug/kg	
Holloman Table 2	SW8270	S	.	5.4096	ND	59.3	ug/kg	
Holloman Table 2	SW8270	S	.	23.9153	ND	68.0	ug/kg	
Holloman Table 2	SW8270	S	.	14.8925	ND	59.6	ug/kg	
Holloman Table 2	SW8270	S	.	18.7630	ND	68.7	ug/kg	
Holloman Table 2	SW8270	S	.	11.9163	ND	60.1	ug/kg	
Holloman Table 2	SW8270	S	.	19.2196	ND	68.5	ug/kg	
Holloman Table 2	SW8270	S	.	14.5611	ND	59.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.6781	ND	67.8	ug/kg	
Holloman Table 2	SW8270	S	35.5	35.5000	DET	60.6	ug/kg	J
Holloman Table 2	SW8270	S	.	0.5360	ND	67.3	ug/kg	
Holloman Table 2	SW8270	S	.	18.1619	ND	114.0	ug/kg	
Holloman Table 2	SW8270	S	.	1.2477	ND	106.0	ug/kg	
Holloman Table 2	SW8270	S	.	6.5584	ND	109.0	ug/kg	
Holloman Table 2	SW8270	S	.	19.4098	ND	110.0	ug/kg	
Holloman Table 2	SW8270	S	.	13.9040	ND	112.0	ug/kg	
Holloman Table 2	SW8270	S	.	24.8337	ND	105.0	ug/kg	
Holloman Table 2	SW8270	S	.	12.7421	ND	115.0	ug/kg	
Holloman Table 2	SW8270	S	.	12.5076	ND	112.0	ug/kg	

N = 25

----- SWMUs Group=129/178 Method=Organics Analyte=cis-1,3-Dichloropropene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.09417	ND	0.00102	mg/kg	
Holloman Table 2	SW8240	S	.	0.04036	ND	0.00106	mg/kg	
Holloman Table 2	SW8240	S	.	0.11986	ND	0.00100	mg/kg	
Holloman Table 2	SW8240	S	.	0.02955	ND	0.00172	mg/kg	
Holloman Table 2	SW8240	S	.	0.08053	ND	0.00150	mg/kg	
Holloman Table 2	SW8240	S	.	0.06622	ND	0.00156	mg/kg	

N = 7

---------- SWMUs Group=129/178 Method=Organics Analyte=delta-BHC ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

---------- SWMUs Group=129/178 Method=Organics Analyte=gamma-BHC ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8080	S	.00062	.00062	DET	.00062	mg/kg	

N = 1

-- SWMUs Group=129/178 Method=Organics Analyte=o,o,o-Triethylphosphorthioate --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8140	S	0.18	0.18	DET	0.18	mg/kg	

N = 1

--------- SWMUs Group=129/178 Method=Organics Analyte=p-Chloroaniline ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8270	S	610	610.000	DET	610	ug/kg	
Holloman Table 2	SW8270	S	.	495.928	ND	36	ug/kg	

--------- SWMUs Group=129/178 Method=Organics Analyte=p-Chloroaniline ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	58.225	ND	37.4	ug/kg	
Holloman Table 2	SW8270	S	.	15.483	ND	35.0	ug/kg	
Holloman Table 2	SW8270	S	.	338.983	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	341.671	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	24.332	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	525.847	ND	35.4	ug/kg	
Holloman Table 2	SW8270	S	.	184.411	ND	40.6	ug/kg	
Holloman Table 2	SW8270	S	.	233.674	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	156.416	ND	41.0	ug/kg	
Holloman Table 2	SW8270	S	.	257.693	ND	35.9	ug/kg	
Holloman Table 2	SW8270	S	.	257.608	ND	40.9	ug/kg	
Holloman Table 2	SW8270	S	.	378.932	ND	35.6	ug/kg	
Holloman Table 2	SW8270	S	.	524.286	ND	40.4	ug/kg	
Holloman Table 2	SW8270	S	.	403.073	ND	36.1	ug/kg	
Holloman Table 2	SW8270	S	.	357.387	ND	40.1	ug/kg	
Holloman Table 2	SW8270	S	.	221.524	ND	40.4	ug/kg	
Holloman Table 2	SW8270	S	.	269.153	ND	37.5	ug/kg	
Holloman Table 2	SW8270	S	.	555.300	ND	38.4	ug/kg	
Holloman Table 2	SW8270	S	.	364.090	ND	39.1	ug/kg	
Holloman Table 2	SW8270	S	.	608.885	ND	39.6	ug/kg	
Holloman Table 2	SW8270	S	.	458.976	ND	37.2	ug/kg	
Holloman Table 2	SW8270	S	.	574.866	ND	40.8	ug/kg	
Holloman Table 2	SW8270	S	.	82.098	ND	39.6	ug/kg	

N = 25

---- SWMUs Group=129/178 Method=Organics Analyte=trans-1,2-Dichloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.08499	ND	0.00324	mg/kg	
Holloman Table 2	SW8240	S	.	0.04016	ND	0.00336	mg/kg	
Holloman Table 2	SW8240	S	.	0.03102	ND	0.00317	mg/kg	
Holloman Table 2	SW8240	S	.	0.03011	ND	0.00249	mg/kg	
Holloman Table 2	SW8240	S	.	0.08605	ND	0.00243	mg/kg	
Holloman Table 2	SW8240	S	.	0.07083	ND	0.00252	mg/kg	

N = 7

---- SWMUs Group=129/178 Method=Organics Analyte=trans-1,3-Dichloropropene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.12	0.12000	DET	0.12000	mg/kg	
Holloman Table 2	SW8240	S	.	0.02648	ND	0.00149	mg/kg	
Holloman Table 2	SW8240	S	.	0.11692	ND	0.00154	mg/kg	
Holloman Table 2	SW8240	S	.	0.11181	ND	0.00145	mg/kg	
Holloman Table 2	SW8240	S	.	0.05165	ND	0.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.11239	ND	0.00161	mg/kg	
Holloman Table 2	SW8240	S	.	0.06758	ND	0.00168	mg/kg	

N = 7

---------- SWMUs Group=164 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.664	0.664	DET	0.656	mg/kg	
Holloman Table 2	SW7060	S	0.440	0.440	DET	0.695	mg/kg	J
Holloman Table 2	SW7060	S	1.020	1.020	DET	0.648	mg/kg	
Holloman Table 2	SW7060	S	0.916	0.916	DET	0.613	mg/kg	

N = 4

---------- SWMUs Group=164 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	63.6	63.6	DET	0.0511	mg/kg	
Holloman Table 2	SW6010	S	55.6	55.6	DET	0.0513	mg/kg	
Holloman Table 2	SW6010	S	63.4	63.4	DET	0.0544	mg/kg	
Holloman Table 2	SW6010	S	64.2	64.2	DET	0.0483	mg/kg	

N = 4

---------- SWMUs Group=164 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.1400	-0.1400	DET	0.253	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2370	0.2370	DET	0.254	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0986	0.0986	DET	0.270	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0409	-0.0409	DET	0.240	mg/kg	BJ

N = 4

---------- SWMUs Group=164 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	7.68	7.68	DET	0.241	mg/kg	B
Holloman Table 2	SW6010	S	7.80	7.80	DET	0.242	mg/kg	B
Holloman Table 2	SW6010	S	10.10	10.10	DET	0.256	mg/kg	B
Holloman Table 2	SW6010	S	13.70	13.70	DET	0.228	mg/kg	B

N = 4

---------- SWMUs Group=164 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	5.16	5.16	DET	0.297	mg/kg	B
Holloman Table 2	SW7421	S	3.46	3.46	DET	0.286	mg/kg	B
Holloman Table 2	SW7421	S	3.60	3.60	DET	0.317	mg/kg	B
Holloman Table 2	SW7421	S	6.54	6.54	DET	0.297	mg/kg	B

N = 4

---------- SWMUs Group=164 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.00938	-0.00938	DET	0.0150	mg/kg	J
Holloman Table 2	SW7471	S	-0.02030	-0.02030	DET	0.0140	mg/kg	J
Holloman Table 2	SW7471	S	-0.00962	-0.00962	DET	0.0154	mg/kg	J
Holloman Table 2	SW7471	S	-0.02130	-0.02130	DET	0.0146	mg/kg	J

N = 4

---------- SWMUs Group=164 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.360	2.360	DET	0.234	mg/kg	
Holloman Table 2	SW7740	S	0.580	0.580	DET	0.251	mg/kg	
Holloman Table 2	SW7740	S	1.160	1.160	DET	0.231	mg/kg	
Holloman Table 2	SW7740	S	0.497	0.497	DET	0.219	mg/kg	

N = 4

--------- SWMUs Group=164 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.582	-0.582	DET	0.161	mg/kg	J
Holloman Table 2	SW6010	S	-0.142	-0.142	DET	0.162	mg/kg	J
Holloman Table 2	SW6010	S	-1.120	-1.120	DET	0.172	mg/kg	J
Holloman Table 2	SW6010	S	-0.846	-0.846	DET	0.153	mg/kg	J

N = 4

---------- SWMUs Group=164 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.01540	0.01540	DET	.00158	mg/kg	B
Holloman Table 2	SW8240	S	0.00679	0.00679	DET	.00149	mg/kg	B
Holloman Table 2	SW8240	S	0.00604	0.00604	DET	.00163	mg/kg	B
Holloman Table 2	SW8240	S	0.01040	0.01040	DET	.00156	mg/kg	B

N = 4

---------- SWMUs Group=164 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-5.12	-5.12	DET	31.3	mg/kg	J
Holloman Table 2	E418.1	S	-4.78	-4.78	DET	29.2	mg/kg	J
Holloman Table 2	E418.1	S	-5.26	-5.26	DET	32.2	mg/kg	J
Holloman Table 2	E418.1	S	-1.73	-1.73	DET	30.7	mg/kg	J

N = 4

--------- SWMUs Group=164 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0003119	ND	.00274	mg/kg	
Holloman Table 2	SW8240	S	.	.0006443	ND	.00259	mg/kg	
Holloman Table 2	SW8240	S	.00132	.0013200	DET	.00283	mg/kg	J
Holloman Table 2	SW8240	S	.00107	.0010700	DET	.00271	mg/kg	J

N = 4

---------- SWMUs Group=164 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0002465	ND	.00179	mg/kg	
Holloman Table 2	SW8240	S	.	.0007613	ND	.00169	mg/kg	
Holloman Table 2	SW8240	S	.00122	.0012200	DET	.00185	mg/kg	J
Holloman Table 2	SW8240	S	.	.0005490	ND	.00176	mg/kg	

N = 4

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Antimony --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	18	18	DET	18	mg/kg	
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	
Holloman 29 Sites	SW6010	S	23	23	DET	23	mg/kg	
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Arsenic --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7060	S	2.60	2.60	DET	0.45	mg/kg	
Holloman 29 Sites	SW706D	S	0.66	0.66	DET	0.43	mg/kg	@
Holloman 29 Sites	SW7060	S	2.00	2.00	DET	0.40	mg/kg	
Holloman 29 Sites	SW7060	S	2.00	2.00	DET	0.44	mg/kg	@

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Barium ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	80.0	80.0	DET	0.0403	mg/kg	B
Holloman Table 2	SW6010	S	143.0	143.0	DET	0.0524	mg/kg	
Holloman Table 2	SW6010	S	41.7	41.7	DET	0.0535	mg/kg	B
Holloman Table 2	SW6010	S	32.0	32.0	DET	0.0634	mg/kg	B
Holloman Table 2	SW6010	S	48.0	48.0	DET	0.0565	mg/kg	
Holloman Table 2	SW6010	S	36.6	36.6	DET	0.0569	mg/kg	B
Holloman Table 2	SW6010	S	30.7	30.7	DET	0.0580	mg/kg	B
Holloman Table 2	SW6010	S	25.2	25.2	DET	0.0540	mg/kg	
Holloman Table 2	SW6010	S	33.1	33.1	DET	0.0485	mg/kg	B

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Barium ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	22.9	22.9	DET	0.0535	mg/kg	B
Holloman Table 2	SW6010	S	57.5	57.5	DET	0.0510	mg/kg	
Holloman Table 2	SW6010	S	38.8	38.8	DET	0.0479	mg/kg	B
Holloman Table 2	SW6010	S	62.0	62.0	DET	0.0386	mg/kg	B
Holloman Table 2	SW6010	S	60.8	60.8	DET	0.0562	mg/kg	
Holloman Table 2	SW6010	S	77.1	77.1	DET	0.0538	mg/kg	
Holloman Table 2	SW6010	S	37.4	37.4	DET	0.0551	mg/kg	
Holloman Table 2	SW6010	S	38.5	38.5	DET	0.0468	mg/kg	B
Holloman Table 2	SW6010	S	67.8	67.8	DET	0.0512	mg/kg	B
Holloman Table 2	SW6010	S	34.7	34.7	DET	0.0544	mg/kg	B
Holloman Table 2	SW6010	S	44.5	44.5	DET	0.0587	mg/kg	B
Holloman Table 2	SW6010	S	37.7	37.7	DET	0.0548	mg/kg	B
Holloman Table 2	SW6010	S	73.1	73.1	DET	0.0531	mg/kg	B
Holloman Table 2	SW6010	S	54.6	54.6	DET	0.0475	mg/kg	B
Holloman Table 2	SW6010	S	56.0	56.0	DET	0.0580	mg/kg	
Holloman Table 2	SW6010	S	22.9	22.9	DET	0.0498	mg/kg	
Holloman Table 2	SW6010	S	114.0	114.0	DET	0.0443	mg/kg	
Holloman Table 2	SW6010	S	55.0	55.0	DET	0.0568	mg/kg	
Holloman Table 2	SW6010	S	19.1	19.1	DET	0.0493	mg/kg	
Holloman Table 2	SW6010	S	18.8	18.8	DET	0.0554	mg/kg	
Holloman Table 2	SW6010	S	47.0	47.0	DET	0.0580	mg/kg	
Holloman Table 2	SW6010	S	35.0	35.0	DET	0.0509	mg/kg	
Holloman Table 2	SW6010	S	19.2	19.2	DET	0.0509	mg/kg	
Holloman Table 2	SW6010	S	21.2	21.2	DET	0.0538	mg/kg	
Holloman Table 2	SW6010	S	46.4	46.4	DET	0.0503	mg/kg	
Holloman Table 2	SW6010	S	46.7	46.7	DET	0.0424	mg/kg	
Holloman Table 2	SW6010	S	33.4	33.4	DET	0.0560	mg/kg	B

N = 36

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Beryllium -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	0.36	0.36	DET	0.36	mg/kg	
Holloman 29 Sites	SW6010	S	0.49	0.49	DET	0.49	mg/kg	
Holloman 29 Sites	SW6010	S	0.45	0.45	DET	0.45	mg/kg	
Holloman 29 Sites	SW6010	S	0.58	0.58	DET	0.49	mg/kg	@

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Cadmium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	0.9800	0.9800	DET	0.890	mg/kg	@
Holloman 29 Sites	SW6010	S	1.2000	1.2000	DET	1.200	mg/kg	
Holloman 29 Sites	SW6010	S	30.0000	30.0000	DET	1.100	mg/kg	
Holloman 29 Sites	SW6010	S	4.3000	4.3000	DET	1.200	mg/kg	@
Holloman Table 2	SW6010	S	22.4000	22.4000	DET	0.200	mg/kg	
Holloman Table 2	SW6010	S	6.3000	6.3000	DET	0.260	mg/kg	
Holloman Table 2	SW6010	S	2.3300	2.3300	DET	0.265	mg/kg	
Holloman Table 2	SW6010	S	0.2270	0.2270	DET	0.314	mg/kg	J
Holloman Table 2	SW6010	S	-0.2250	-0.2250	DET	0.280	mg/kg	J
Holloman Table 2	SW6010	S	0.2960	0.2960	DET	0.282	mg/kg	
Holloman Table 2	SW6010	S	-0.1220	-0.1220	DET	0.288	mg/kg	J
Holloman Table 2	SW6010	S	-0.2050	-0.2050	DET	0.267	mg/kg	J
Holloman Table 2	SW6010	S	1.0900	1.0900	DET	0.240	mg/kg	
Holloman Table 2	SW6010	S	0.5820	0.5820	DET	0.265	mg/kg	
Holloman Table 2	SW6010	S	0.0511	0.0511	DET	0.253	mg/kg	J
Holloman Table 2	SW6010	S	0.3320	0.3320	DET	0.237	mg/kg	B
Holloman Table 2	SW6010	S	0.7960	0.7960	DET	0.191	mg/kg	B
Holloman Table 2	SW6010	S	-0.0165	-0.0165	DET	0.279	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0260	-0.0260	DET	0.266	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0076	-0.0076	DET	0.273	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1770	0.1770	DET	0.232	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2310	0.2310	DET	0.254	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.1090	-0.1090	DET	0.270	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1940	0.1940	DET	0.291	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0047	-0.0047	DET	0.272	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0284	0.0284	DET	0.263	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0172	-0.0172	DET	0.236	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0431	-0.0431	DET	0.287	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0146	0.0146	DET	0.247	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0176	-0.0176	DET	0.219	mg/kg	BJ
Holloman Table 2	SW6010	S	0.5780	0.5780	DET	0.281	mg/kg	B
Holloman Table 2	SW6010	S	0.2110	0.2110	DET	0.245	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2900	0.2900	DET	0.275	mg/kg	B
Holloman Table 2	SW6010	S	-0.1000	-0.1000	DET	0.288	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1470	0.1470	DET	0.252	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1290	0.1290	DET	0.252	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1310	0.1310	DET	0.267	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0260	-0.0260	DET	0.249	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0161	0.0161	DET	0.210	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0135	0.0135	DET	0.277	mg/kg	BJ

N = 40

------- Group=165/177/179/181 Method=Inorganics Analyte=Chromium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	5.60	5.60	DET	1.800	mg/kg	@
Holloman 29 Sites	SW6010	S	3.20	3.20	DET	2.400	mg/kg	@
Holloman 29 Sites	SW6010	S	78.00	78.00	DET	2.300	mg/kg	
Holloman 29 Sites	SW6010	S	25.00	25.00	DET	2.400	mg/kg	
Holloman Table 2	SW6010	S	188.00	188.00	DET	0.190	mg/kg	B
Holloman Table 2	SW6010	S	38.60	38.60	DET	0.247	mg/kg	B
Holloman Table 2	SW6010	S	12.80	12.80	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	4.05	4.05	DET	0.299	mg/kg	B
Holloman Table 2	SW6010	S	8.71	8.71	DET	0.266	mg/kg	B
Holloman Table 2	SW6010	S	8.14	8.14	DET	0.268	mg/kg	B
Holloman Table 2	SW6010	S	4.59	4.59	DET	0.274	mg/kg	B
Holloman Table 2	SW6010	S	3.67	3.67	DET	0.254	mg/kg	B
Holloman Table 2	SW6010	S	4.84	4.84	DET	0.228	mg/kg	B
Holloman Table 2	SW6010	S	4.61	4.61	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	11.10	11.10	DET	0.240	mg/kg	B
Holloman Table 2	SW6010	S	15.80	15.80	DET	0.226	mg/kg	B
Holloman Table 2	SW6010	S	7.74	7.74	DET	0.182	mg/kg	B
Holloman Table 2	SW6010	S	6.43	6.43	DET	0.265	mg/kg	B
Holloman Table 2	SW6010	S	7.09	7.09	DET	0.253	mg/kg	B
Holloman Table 2	SW6010	S	5.97	5.97	DET	0.260	mg/kg	B
Holloman Table 2	SW6010	S	7.18	7.18	DET	0.221	mg/kg	B
Holloman Table 2	SW6010	S	8.96	8.96	DET	0.241	mg/kg	B
Holloman Table 2	SW6010	S	5.61	5.61	DET	0.256	mg/kg	B
Holloman Table 2	SW6010	S	6.73	6.73	DET	0.277	mg/kg	B
Holloman Table 2	SW6010	S	5.82	5.82	DET	0.258	mg/kg	B
Holloman Table 2	SW6010	S	8.79	8.79	DET	0.250	mg/kg	B
Holloman Table 2	SW6010	S	4.93	4.93	DET	0.224	mg/kg	B
Holloman Table 2	SW6010	S	8.95	8.95	DET	0.273	mg/kg	B
Holloman Table 2	SW6010	S	4.11	4.11	DET	0.235	mg/kg	B
Holloman Table 2	SW6010	S	14.30	14.30	DET	0.209	mg/kg	B
Holloman Table 2	SW6010	S	8.71	8.71	DET	0.268	mg/kg	B
Holloman Table 2	SW6010	S	3.88	3.88	DET	0.233	mg/kg	B
Holloman Table 2	SW6010	S	4.41	4.41	DET	0.261	mg/kg	B
Holloman Table 2	SW6010	S	5.75	5.75	DET	0.273	mg/kg	B
Holloman Table 2	SW6010	S	5.96	5.96	DET	0.240	mg/kg	B
Holloman Table 2	SW6010	S	3.90	3.90	DET	0.240	mg/kg	B
Holloman Table 2	SW6010	S	5.39	5.39	DET	0.254	mg/kg	B
Holloman Table 2	SW6010	S	5.97	5.97	DET	0.237	mg/kg	B
Holloman Table 2	SW6010	S	6.35	6.35	DET	0.200	mg/kg	B
Holloman Table 2	SW6010	S	6.13	6.13	DET	0.264	mg/kg	B

N = 40

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Co --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	6.0	6.0	DET	3.6	mg/kg	@
Holloman 29 Sites	SW6010	S	4.9	4.9	DET	4.9	mg/kg	
Holloman 29 Sites	SW6010	S	82.0	82.0	DET	4.5	mg/kg	
Holloman 29 Sites	SW6010	S	5.1	5.1	DET	4.9	mg/kg	@

N = 4

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7421	S	16.000	16.000	DET	1.1000	mg/kg	
Holloman 29 Sites	SW7421	S	1.000	1.000	DET	0.2400	mg/kg	@
Holloman 29 Sites	SW7421	S	77.000	77.000	DET	4.3000	mg/kg	
Holloman 29 Sites	SW7421	S	9.200	9.200	DET	0.9800	mg/kg	
Holloman Table 2	SW7421	S	94.200	94.200	DET	3.6200	mg/kg	S
Holloman Table 2	SW7421	S	22.600	22.600	DET	0.8360	mg/kg	SB
Holloman Table 2	SW7421	S	5.840	5.840	DET	0.2080	mg/kg	S
Holloman Table 2	SW7421	S	0.592	0.592	DET	0.1120	mg/kg	S
Holloman Table 2	SW7421	S	0.110	0.110	DET	0.0799	mg/kg	SB
Holloman Table 2	SW7421	S	6.770	6.770	DET	0.2000	mg/kg	S
Holloman Table 2	SW7421	S	1.100	1.100	DET	0.1050	mg/kg	S
Holloman Table 2	SW7421	S	0.535	0.535	DET	0.0772	mg/kg	SB
Holloman Table 2	SW7421	S	43.800	43.800	DET	2.0100	mg/kg	S
Holloman Table 2	SW7421	S	44.400	44.400	DET	2.0200	mg/kg	S
Holloman Table 2	SW7421	S	13.600	13.600	DET	0.3250	mg/kg	SB
Holloman Table 2	SW7421	S	59.200	59.200	DET	2.0600	mg/kg	B
Holloman Table 2	SW7421	S	46.300	46.300	DET	1.0500	mg/kg	
Holloman Table 2	SW7421	S	2.290	2.290	DET	0.1430	mg/kg	S
Holloman Table 2	SW7421	S	2.280	2.280	DET	0.1580	mg/kg	S
Holloman Table 2	SW7421	S	1.840	1.840	DET	0.1470	mg/kg	S
Holloman Table 2	SW7421	S	1.570	1.570	DET	0.0764	mg/kg	
Holloman Table 2	SW7421	S	1.460	1.460	DET	0.0727	mg/kg	
Holloman Table 2	SW7421	S	0.430	0.430	DET	0.0757	mg/kg	
Holloman Table 2	SW7421	S	4.910	4.910	DET	0.0766	mg/kg	B
Holloman Table 2	SW7421	S	0.494	0.494	DET	0.0769	mg/kg	
Holloman Table 2	SW7421	S	1.620	1.620	DET	0.0720	mg/kg	
Holloman Table 2	SW7421	S	0.531	0.531	DET	0.0584	mg/kg	
Holloman Table 2	SW7421	S	4.440	4.440	DET	0.1530	mg/kg	S
Holloman Table 2	SW7421	S	2.480	2.480	DET	0.1600	mg/kg	S
Holloman Table 2	SW7421	S	5.980	5.980	DET	0.1330	mg/kg	S
Holloman Table 2	SW7421	S	28.600	28.600	DET	0.7300	mg/kg	S
Holloman Table 2	SW7421	S	0.782	0.782	DET	0.1420	mg/kg	S
Holloman Table 2	SW7421	S	0.560	0.560	DET	0.1490	mg/kg	S
Holloman Table 2	SW7421	S	0.933	0.933	DET	0.1560	mg/kg	SB
Holloman Table 2	SW7421	S	1.420	1.420	DET	0.1390	mg/kg	SB

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Lead ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	0.616	0.616	DET	0.141	mg/kg	SB
Holloman Table 2	SW7421	S	1.360	1.360	DET	0.138	mg/kg	SB
Holloman Table 2	SW7421	S	1.560	1.560	DET	0.141	mg/kg	SB
Holloman Table 2	SW7421	S	2.050	2.050	DET	0.128	mg/kg	SB
Holloman Table 2	SW7421	S	3.540	3.540	DET	0.133	mg/kg	SB

N = 40

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Mercury --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7471	S	0.056	0.056	DET	0.056	mg/kg	
Holloman 29 Sites	SW7471	S	0.064	0.064	DET	0.064	mg/kg	
Holloman 29 Sites	SW7471	S	0.068	0.068	DET	0.068	mg/kg	
Holloman 29 Sites	SW7471	S	0.060	0.060	DET	0.060	mg/kg	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Nickel ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	3.6	3.6	DET	3.6	mg/kg	
Holloman 29 Sites	SW6010	S	4.9	4.9	DET	4.9	mg/kg	
Holloman 29 Sites	SW6010	S	14.0	14.0	DET	4.5	mg/kg	@
Holloman 29 Sites	SW6010	S	8.6	8.6	DET	4.9	mg/kg	@

N = 4

------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Selenium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW7740	S	0.56	0.56	DET	0.56	mg/kg	
Holloman 29 Sites	SW7740	S	0.54	0.54	DET	0.54	mg/kg	
Holloman 29 Sites	SW7740	S	0.50	0.50	DET	0.50	mg/kg	
Holloman 29 Sites	SW7740	S	0.55	0.55	DET	0.55	mg/kg	

N = 4

-------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Silver ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	1.8000	1.8000	DET	1.800	mg/kg	
Holloman 29 Sites	SW6010	S	2.4000	2.4000	DET	2.400	mg/kg	
Holloman 29 Sites	SW6010	S	2.3000	2.3000	DET	2.300	mg/kg	
Holloman 29 Sites	SW6010	S	2.4000	2.4000	DET	2.400	mg/kg	
Holloman Table 2	SW6010	S	1.5000	1.5000	DET	0.127	mg/kg	B
Holloman Table 2	SW6010	S	0.2820	0.2820	DET	0.166	mg/kg	
Holloman Table 2	SW6010	S	-1.1800	-1.1800	DET	0.169	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.3540	-0.3540	DET	0.200	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.3500	-0.3500	DET	0.179	mg/kg	J
Holloman Table 2	SW6010	S	-0.1090	-0.1090	DET	0.180	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.1710	-0.1710	DET	0.183	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1490	0.1490	DET	0.171	mg/kg	J
Holloman Table 2	SW6010	S	-0.5950	-0.5950	DET	0.153	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.6910	-0.6910	DET	0.169	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.4650	-0.4650	DET	0.161	mg/kg	J
Holloman Table 2	SW6010	S	-0.5240	-0.5240	DET	0.151	mg/kg	J
Holloman Table 2	SW6010	S	-0.6990	-0.6990	DET	0.122	mg/kg	J
Holloman Table 2	SW6010	S	0.2820	0.2820	DET	0.178	mg/kg	
Holloman Table 2	SW6010	S	0.0464	0.0464	DET	0.170	mg/kg	J
Holloman Table 2	SW6010	S	0.2070	0.2070	DET	0.174	mg/kg	
Holloman Table 2	SW6010	S	0.1830	0.1830	DET	0.148	mg/kg	B
Holloman Table 2	SW6010	S	0.0672	0.0672	DET	0.162	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.6670	-0.6670	DET	0.172	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2380	0.2380	DET	0.186	mg/kg	B
Holloman Table 2	SW6010	S	-0.2090	-0.2090	DET	0.173	mg/kg	BJ
Holloman Table 2	SW6010	S	0.3920	0.3920	DET	0.168	mg/kg	B
Holloman Table 2	SW6010	S	0.0665	0.0665	DET	0.150	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2860	0.2860	DET	0.183	mg/kg	
Holloman Table 2	SW6010	S	-0.0964	-0.0964	DET	0.158	mg/kg	J
Holloman Table 2	SW6010	S	-0.5780	-0.5780	DET	0.140	mg/kg	J
Holloman Table 2	SW6010	S	0.3820	0.3820	DET	0.179	mg/kg	
Holloman Table 2	SW6010	S	-0.0579	-0.0579	DET	0.156	mg/kg	J
Holloman Table 2	SW6010	S	-0.1360	-0.1360	DET	0.175	mg/kg	J
Holloman Table 2	SW6010	S	-0.2180	-0.2180	DET	0.183	mg/kg	J
Holloman Table 2	SW6010	S	0.0782	0.0782	DET	0.161	mg/kg	J
Holloman Table 2	SW6010	S	0.0563	0.0563	DET	0.161	mg/kg	J
Holloman Table 2	SW6010	S	-0.8350	-0.8350	DET	0.170	mg/kg	J
Holloman Table 2	SW6010	S	-0.0573	-0.0573	DET	0.159	mg/kg	J
Holloman Table 2	SW6010	S	0.1780	0.1780	DET	0.134	mg/kg	
Holloman Table 2	SW6010	S	0.5550	0.5550	DET	0.177	mg/kg	B

N = 40

------- SWMus Group=165/177/179/181 Method=Inorganics Analyte=Thallium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	18	18	DET	18	mg/kg	
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	
Holloman 29 Sites	SW6010	S	23	23	DET	23	mg/kg	
Holloman 29 Sites	SW6010	S	24	24	DET	24	mg/kg	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW6010	S	52.0	52.0	DET	3.6	mg/kg	
Holloman 29 Sites	SW6010	S	8.4	8.4	DET	4.9	mg/kg	@
Holloman 29 Sites	SW6010	S	380.0	380.0	DET	4.5	mg/kg	
Holloman 29 Sites	SW6010	S	60.0	60.0	DET	4.9	mg/kg	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,1-Trichloroethane --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	430.00	430.00	DET	17.00	mg/kg	D
Holloman 29 Sites	SW8240	S	87.00	87.00	DET	3.50	mg/kg	D
Holloman 29 Sites	SW8240	S	0.90	0.90	DET	0.14	mg/kg	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,2,2-Tetrachloroethane

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1,2-Trichloroethane --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.130	0.130	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.095	0.095	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.140	0.140	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.140	0.140	DET	0.14	mg/kg	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1-Dichloroethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.130	0.130	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.260	0.260	DET	0.13	mg/kg	@
Holloman 29 Sites	SW8240	S	0.170	0.170	DET	0.14	mg/kg	@
Holloman 29 Sites	SW8240	S	0.069	0.069	DET	0.14	mg/kg	J

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,1-Dichloroethene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.130	0.130	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.130	0.130	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.140	0.140	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.044	0.044	DET	0.14	mg/kg	J

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,2-Dichloroethane ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.13	mg/kg	@
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=1,2-Dichloropropane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Chloroethyl vinyl ether

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25	DET	0.25	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	

N = 4

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Hexanone --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.3	1.3	DET	1.3	mg/kg	
Holloman 29 Sites	SW8240	S	1.3	1.3	DET	1.3	mg/kg	
Holloman 29 Sites	SW8240	S	1.4	1.4	DET	1.4	mg/kg	
Holloman 29 Sites	SW8240	S	1.4	1.4	DET	1.4	mg/kg	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=2-Methylnaphthalene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	4068.08	ND	31.9	ug/kg	
Holloman Table 2	SW8270	S	.	5613.37	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	6050	6050.00	DET	757.0	ug/kg	

N = 3

- SWMUs Group=165/177/179/181 Method=Organics Analyte=4-Chloro-3-methylphenol -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	113.93	ND	29.1	ug/kg	
Holloman Table 2	SW8270	S	.	3712.48	ND	16.9	ug/kg	
Holloman Table 2	SW8270	S	4250	4250.00	DET	522.0	ug/kg	

N = 3

SWMUs Group=165/177/179/181 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	1.3	1.3	DET	1.3	mg/kg	
Holloman 29 Sites	SW8240	S	1.3	1.3	DET	1.3	mg/kg	
Holloman 29 Sites	SW8240	S	1.4	1.4	DET	1.4	mg/kg	
Holloman 29 Sites	SW8240	S	1.4	1.4	DET	1.4	mg/kg	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Acetone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.5	2.5	DET	2.5	mg/kg	
Holloman 29 Sites	SW8240	S	2.7	2.7	DET	2.7	mg/kg	
Holloman 29 Sites	SW8240	S	2.8	2.8	DET	2.8	mg/kg	
Holloman 29 Sites	SW8240	S	2.7	2.7	DET	2.7	mg/kg	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Benzene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromodichloromethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Bromomethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25	DET	0.25	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	

N = 4

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Carbon disulfide -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Carbon tetrachloride ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chlorobenzene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloroethane -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25	DET	0.25	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	

N = 4

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloroform --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Chloromethane ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.044	0.044	DET	0.25	mg/kg	J
Holloman 29 Sites	SW8240	S	0.270	0.270	DET	0.27	mg/kg	
Holloman 29 Sites	SW8240	S	0.280	0.280	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.270	0.270	DET	0.27	mg/kg	

N = 4

-- SWMUs Group=165/177/179/181 Method=Organics Analyte=Dibromochloromethane ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Ethyl benzene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.0029	0.0029	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.0043	0.0043	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.0810	0.0810	DET	0.14	mg/kg	J
Holloman 29 Sites	SW8240	S	0.1400	0.1400	DET	0.14	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Hydrocarbons -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	E418.1	S	678.0	678.0	DET	25.5	mg/kg	
Holloman 29 Sites	E418.1	S	26.3	26.3	DET	13.3	mg/kg	
Holloman 29 Sites	E418.1	S	2620.0	2620.0	DET	283.0	mg/kg	
Holloman 29 Sites	E418.1	S	543.0	543.0	DET	14.4	mg/kg	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Methyl ethyl ketone ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	2.5	2.5	DET	2.5	mg/kg	
Holloman 29 Sites	SW8240	S	2.7	2.7	DET	2.7	mg/kg	
Holloman 29 Sites	SW8240	S	2.8	2.8	DET	2.8	mg/kg	
Holloman 29 Sites	SW8240	S	2.7	2.7	DET	2.7	mg/kg	

N = 4

--- SWMUs Group=165/177/179/181 Method=Organics Analyte=Methylene Chloride ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.51	0.51	DET	0.13	mg/kg	B@
Holloman 29 Sites	SW8240	S	0.63	0.63	DET	0.13	mg/kg	B@
Holloman 29 Sites	SW8240	S	1.40	1.40	DET	0.14	mg/kg	B
Holloman 29 Sites	SW8240	S	0.53	0.53	DET	0.14	mg/kg	B@

N = 4

------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Naphthalene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	965.59	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	.	5.03	ND	32.5	ug/kg	
Holloman Table 2	SW8270	S	1910	1910.00	DET	1010.0	ug/kg	

N = 3

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Percent moisture -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	D2216	S	20	20	DET	.	percent	
Holloman 29 Sites	D2216	S	26	26	DET	.	percent	
Holloman 29 Sites	D2216	S	28	28	DET	.	percent	
Holloman 29 Sites	D2216	S	26	26	DET	.	percent	

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Styrene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

---- SWMUs Group=165/177/179/181 Method=Organics Analyte=Tetrachloroethene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.43	0.43	DET	0.13	mg/kg	@
Holloman 29 Sites	SW8240	S	95.00	95.00	DET	3.50	mg/kg	D
Holloman 29 Sites	SW8240	S	0.30	0.30	DET	0.14	mg/kg	@

N = 4

--------- SWMUs Group=165/177/179/181 Method=Organics Analyte=Toluene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.012	0.012	DET	0.13	mg/kg	JB
Holloman 29 Sites	SW8240	S	3.400	3.400	DET	0.13	mg/kg	B
Holloman 29 Sites	SW8240	S	0.082	0.082	DET	0.14	mg/kg	JB
Holloman 29 Sites	SW8240	S	0.012	0.012	DET	0.14	mg/kg	JB

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=Tribromomethane(Bromoform)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Trichloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.130	0.130	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	40.000	40.000	DET	3.40	mg/kg	D
Holloman 29 Sites	SW8240	S	11.000	11.000	DET	1.40	mg/kg	D
Holloman 29 Sites	SW8240	S	0.047	0.047	DET	0.14	mg/kg	J

N = 4

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl Chloride ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.25	0.25	DET	0.25	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	
Holloman 29 Sites	SW8240	S	0.28	0.28	DET	0.28	mg/kg	
Holloman 29 Sites	SW8240	S	0.27	0.27	DET	0.27	mg/kg	

N = 4

------ SWMUs Group=165/177/179/181 Method=Organics Analyte=Vinyl acetate ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=Xylene (total) ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.0081	0.0081	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.0230	0.0230	DET	0.13	mg/kg	J
Holloman 29 Sites	SW8240	S	0.2900	0.2900	DET	0.14	mg/kg	@
Holloman 29 Sites	SW8240	S	0.1400	0.1400	DET	0.14	mg/kg	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	4994.45	ND	65.1	ug/kg	
Holloman Table 2	SW8270	S	.	19344.14	ND	112.0	ug/kg	
Holloman Table 2	SW8270	S	19700	19700.00	DET	3460.0	ug/kg	B

N = 3

- SWMUs Group=165/177/179/181 Method=Organics Analyte=cis-1,3-Dichloropropene -

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

----- SWMUs Group=165/177/179/181 Method=Organics Analyte=p-Chloroaniline -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	1388.47	ND	38.9	ug/kg	
Holloman Table 2	SW8270	S	.	1091.54	ND	39.6	ug/kg	
Holloman Table 2	SW8270	S	1690	1690.00	DET	1230.0	ug/kg	

N = 3

SWMUs Group=165/177/179/181 Method=Organics Analyte=trans-1,2-Dichloroethene

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

SWMUs Group=165/177/179/181 Method=Organics Analyte=trans-1,3-Dichloropropene

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.13	0.13	DET	0.13	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	
Holloman 29 Sites	SW8240	S	0.14	0.14	DET	0.14	mg/kg	

N = 4

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Arsenic --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	3.0000	3.00000	DET	0.600	mg/kg	
Walk Hydell	SW6010	S	3.0000	3.00000	DET	0.600	mg/kg	
Walk Hydell	SW6010	S	4.0000	4.00000	DET	0.600	mg/kg	
Walk Hydell	SW6010	S	.	0.16501	ND	2.000	mg/kg	&
Walk Hydell	SW6010	S	.	0.84288	ND	2.000	mg/kg	&
Holloman Table 2	SW7060	S	1.3700	1.37000	DET	0.833	mg/kg	
Holloman Table 2	SW7060	S	0.0926	0.09260	DET	0.731	mg/kg	J
Holloman Table 2	SW7060	S	1.5100	1.51000	DET	0.804	mg/kg	
Holloman Table 2	SW7060	S	-0.9100	-0.91000	DET	0.790	mg/kg	J
Holloman Table 2	SW7060	S	4.2600	4.26000	DET	0.665	mg/kg	
Holloman Table 2	SW7060	S	-0.8220	-0.82200	DET	0.773	mg/kg	J
Holloman Table 2	SW7060	S	3.9200	3.92000	DET	0.373	mg/kg	
Holloman Table 2	SW7060	S	5.1200	5.12000	DET	0.364	mg/kg	
Holloman Table 2	SW7060	S	3.6400	3.64000	DET	0.339	mg/kg	
Holloman Table 2	SW7060	S	3.8600	3.86000	DET	0.350	mg/kg	
Holloman Table 2	SW7060	S	-0.3790	-0.37900	DET	0.768	mg/kg	J
Holloman Table 2	SW7060	S	3.8600	3.86000	DET	0.666	mg/kg	
Holloman Table 2	SW7060	S	3.2500	3.25000	DET	0.323	mg/kg	
Holloman Table 2	SW7060	S	3.6800	3.68000	DET	0.350	mg/kg	
Holloman Table 2	SW7060	S	2.9700	2.97000	DET	0.315	mg/kg	
Holloman Table 2	SW7060	S	3.6200	3.62000	DET	0.310	mg/kg	
Holloman Table 2	SW7060	S	1.7500	1.75000	DET	0.586	mg/kg	B
Holloman Table 2	SW7060	S	-0.3630	-0.36300	DET	0.717	mg/kg	BJ
Holloman Table 2	SW7060	S	0.9230	0.92300	DET	0.682	mg/kg	B
Holloman Table 2	SW7060	S	0.2940	0.29400	DET	0.774	mg/kg	BJ
Holloman Table 2	SW7060	S	3.1500	3.15000	DET	0.726	mg/kg	
Holloman Table 2	SW7060	S	-0.4420	-0.44200	DET	0.896	mg/kg	J

N = 27

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Barium ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	17.5	17.5	DET	0.0539	mg/kg	
Holloman Table 2	SW6010	S	38.2	38.2	DET	0.0532	mg/kg	
Holloman Table 2	SW6010	S	59.4	59.4	DET	0.0618	mg/kg	
Holloman Table 2	SW6010	S	23.4	23.4	DET	0.0538	mg/kg	
Holloman Table 2	SW6010	S	37.7	37.7	DET	0.0482	mg/kg	
Holloman Table 2	SW6010	S	23.5	23.5	DET	0.0464	mg/kg	
Holloman Table 2	SW6010	S	28.8	28.8	DET	0.0496	mg/kg	B
Holloman Table 2	SW6010	S	88.8	88.8	DET	0.0515	mg/kg	B
Holloman Table 2	SW6010	S	80.7	80.7	DET	0.0540	mg/kg	B
Holloman Table 2	SW6010	S	49.5	49.5	DET	0.0609	mg/kg	B
Holloman Table 2	SW6010	S	39.2	39.2	DET	0.0589	mg/kg	
Holloman Table 2	SW6010	S	88.8	88.8	DET	0.0607	mg/kg	

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Barium ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	31.1	31.1	DET	0.0485	mg/kg	B
Holloman Table 2	SW6010	S	52.7	52.7	DET	0.0555	mg/kg	B
Holloman Table 2	SW6010	S	31.7	31.7	DET	0.0531	mg/kg	B
Holloman Table 2	SW6010	S	23.7	23.7	DET	0.0472	mg/kg	B
Holloman Table 2	SW6010	S	76.0	76.0	DET	0.0420	mg/kg	B
Holloman Table 2	SW6010	S	28.0	28.0	DET	0.0610	mg/kg	B
Holloman Table 2	SW6010	S	31.3	31.3	DET	0.0500	mg/kg	B
Holloman Table 2	SW6010	S	32.1	32.1	DET	0.0485	mg/kg	B
Holloman Table 2	SW6010	S	48.7	48.7	DET	0.0581	mg/kg	
Holloman Table 2	SW6010	S	29.0	29.0	DET	0.0520	mg/kg	
Walk Hydell	SW6010	S	39.0	39.0	DET	4.0000	mg/kg	
Walk Hydell	SW6010	S	81.0	81.0	DET	4.0000	mg/kg	
Walk Hydell	SW6010	S	63.0	63.0	DET	4.0000	mg/kg	
Walk Hydell	SW6010	S	12.0	12.0	DET	4.0000	mg/kg	
Walk Hydell	SW6010	S	24.0	24.0	DET	4.0000	mg/kg	

N = 27

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Beryllium -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	2.0	2.0	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	2.0	2.0	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	2.0	2.0	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	0.5	0.5	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	0.8	0.8	DET	0.4	mg/kg	

N = 5

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Cadmium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.311	-0.311	DET	0.267	mg/kg	J
Holloman Table 2	SW6010	S	-0.324	-0.324	DET	0.264	mg/kg	J
Holloman Table 2	SW6010	S	-0.159	-0.159	DET	0.306	mg/kg	J
Holloman Table 2	SW6010	S	-0.288	-0.288	DET	0.267	mg/kg	J
Holloman Table 2	SW6010	S	-0.134	-0.134	DET	0.239	mg/kg	J
Holloman Table 2	SW6010	S	-0.161	-0.161	DET	0.230	mg/kg	J
Holloman Table 2	SW6010	S	0.179	0.179	DET	0.246	mg/kg	BJ
Holloman Table 2	SW6010	S	0.353	0.353	DET	0.255	mg/kg	B
Holloman Table 2	SW6010	S	0.364	0.364	DET	0.268	mg/kg	B

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Cadmium --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.2500	0.2500	DET	0.302	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.3650	-0.3650	DET	0.292	mg/kg	J
Holloman Table 2	SW6010	S	-0.3490	-0.3490	DET	0.301	mg/kg	J
Holloman Table 2	SW6010	S	0.0444	0.0444	DET	0.240	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2350	0.2350	DET	0.275	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0192	0.0192	DET	0.263	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2320	0.2320	DET	0.234	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1780	0.1780	DET	0.208	mg/kg	BJ
Holloman Table 2	SW6010	S	0.2430	0.2430	DET	0.302	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0923	0.0923	DET	0.248	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0586	0.0586	DET	0.240	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0482	-0.0482	DET	0.288	mg/kg	J
Holloman Table 2	SW6010	S	-0.3060	-0.3060	DET	0.258	mg/kg	J
Walk Hydell	SW6010	S	1.0000	1.0000	DET	0.800	mg/kg	
Walk Hydell	SW6010	S	1.0000	1.0000	DET	0.800	mg/kg	
Walk Hydell	SW6010	S	2.0000	2.0000	DET	0.800	mg/kg	
Walk Hydell	SW6010	S	0.3000	0.3000	DET	0.800	mg/kg	
Walk Hydell	SW6010	S	0.4000	0.4000	DET	0.800	mg/kg	

N = 27

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Chromium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	3.68	3.68	DET	0.254	mg/kg	B
Holloman Table 2	SW6010	S	4.97	4.97	DET	0.251	mg/kg	B
Holloman Table 2	SW6010	S	7.23	7.23	DET	0.291	mg/kg	B
Holloman Table 2	SW6010	S	4.17	4.17	DET	0.254	mg/kg	B
Holloman Table 2	SW6010	S	5.93	5.93	DET	0.227	mg/kg	B
Holloman Table 2	SW6010	S	3.08	3.08	DET	0.219	mg/kg	B
Holloman Table 2	SW6010	S	5.10	5.10	DET	0.234	mg/kg	B
Holloman Table 2	SW6010	S	17.70	17.70	DET	0.243	mg/kg	B
Holloman Table 2	SW6010	S	13.20	13.20	DET	0.255	mg/kg	B
Holloman Table 2	SW6010	S	10.10	10.10	DET	0.287	mg/kg	B
Holloman Table 2	SW6010	S	6.55	6.55	DET	0.278	mg/kg	B
Holloman Table 2	SW6010	S	10.40	10.40	DET	0.286	mg/kg	B
Holloman Table 2	SW6010	S	4.54	4.54	DET	0.229	mg/kg	B
Holloman Table 2	SW6010	S	6.77	6.77	DET	0.262	mg/kg	B
Holloman Table 2	SW6010	S	4.42	4.42	DET	0.250	mg/kg	B
Holloman Table 2	SW6010	S	3.63	3.63	DET	0.223	mg/kg	B
Holloman Table 2	SW6010	S	21.10	21.10	DET	0.198	mg/kg	B
Holloman Table 2	SW6010	S	6.18	6.18	DET	0.288	mg/kg	B
Holloman Table 2	SW6010	S	7.46	7.46	DET	0.236	mg/kg	B
Holloman Table 2	SW6010	S	4.08	4.08	DET	0.229	mg/kg	B

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Chromium --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	7.23	7.23	DET	0.274	mg/kg	B
Holloman Table 2	SW6010	S	2.63	2.63	DET	0.245	mg/kg	B
Walk Hydell	SW6010	S	12.00	12.00	DET	1.600	mg/kg	
Walk Hydell	SW6010	S	10.00	10.00	DET	1.600	mg/kg	
Walk Hydell	SW6010	S	12.00	12.00	DET	1.600	mg/kg	
Walk Hydell	SW6010	S	2.00	2.00	DET	1.600	mg/kg	
Walk Hydell	SW6010	S	4.00	4.00	DET	1.600	mg/kg	

N = 27

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Copper ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	30	30	DET	1	mg/kg	
Walk Hydell	SW6010	S	28	28	DET	1	mg/kg	
Walk Hydell	SW6010	S	38	38	DET	1	mg/kg	
Walk Hydell	SW6010	S	10	10	DET	1	mg/kg	
Walk Hydell	SW6010	S	11	11	DET	1	mg/kg	

N = 5

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Iron ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	11799	11799	DET	4	mg/kg	
Walk Hydell	SW6010	S	8974	8974	DET	4	mg/kg	
Walk Hydell	SW6010	S	9232	9232	DET	4	mg/kg	
Walk Hydell	SW6010	S	1244	1244	DET	4	mg/kg	
Walk Hydell	SW6010	S	2503	2503	DET	4	mg/kg	

N = 5

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	6	6	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	5	5	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	6	6	DET	0.4	mg/kg	

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Lead ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	2.000	2.000	DET	0.4000	mg/kg	
Walk Hydell	SW6010	S	4.000	4.000	DET	0.4000	mg/kg	
Holloman Table 2	SW7421	S	1.760	1.760	DET	0.0843	mg/kg	S
Holloman Table 2	SW7421	S	0.265	0.265	DET	0.0741	mg/kg	S
Holloman Table 2	SW7421	S	2.770	2.770	DET	0.0814	mg/kg	S
Holloman Table 2	SW7421	S	0.863	0.863	DET	0.0800	mg/kg	S
Holloman Table 2	SW7421	S	4.010	4.010	DET	0.1350	mg/kg	S
Holloman Table 2	SW7421	S	0.248	0.248	DET	0.0783	mg/kg	S
Holloman Table 2	SW7421	S	3.320	3.320	DET	0.0799	mg/kg	SB
Holloman Table 2	SW7421	S	6.400	6.400	DET	0.1560	mg/kg	SB
Holloman Table 2	SW7421	S	10.700	10.700	DET	0.2910	mg/kg	SB
Holloman Table 2	SW7421	S	3.040	3.040	DET	0.0849	mg/kg	SB
Holloman Table 2	SW7421	S	3.140	3.140	DET	0.0777	mg/kg	S
Holloman Table 2	SW7421	S	6.010	6.010	DET	0.1350	mg/kg	S
Holloman Table 2	SW7421	S	1.350	1.350	DET	0.0693	mg/kg	SB
Holloman Table 2	SW7421	S	1.220	1.220	DET	0.0751	mg/kg	SB
Holloman Table 2	SW7421	S	0.958	0.958	DET	0.0675	mg/kg	SB
Holloman Table 2	SW7421	S	0.573	0.573	DET	0.0664	mg/kg	SB
Holloman Table 2	SW7421	S	76.800	76.800	DET	1.5200	mg/kg	SB
Holloman Table 2	SW7421	S	2.990	2.990	DET	0.0746	mg/kg	SB
Holloman Table 2	SW7421	S	3.420	3.420	DET	0.0738	mg/kg	SB
Holloman Table 2	SW7421	S	1.940	1.940	DET	0.0659	mg/kg	SB
Holloman Table 2	SW7421	S	4.170	4.170	DET	0.1470	mg/kg	S
Holloman Table 2	SW7421	S	4.220	4.220	DET	0.0907	mg/kg	S

N = 27

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Manganese -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	265	265	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	121	121	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	130	130	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	12	12	DET	0.4	mg/kg	
Walk Hydell	SW6010	S	21	21	DET	0.4	mg/kg	

N = 5

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Mercury --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.03380	-0.03380	DET	0.0162	mg/kg	J
Holloman Table 2	SW7471	S	-0.00347	-0.00347	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	0.00000	0.00000	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.03000	-0.03000	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.00987	-0.00987	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.04860	-0.04860	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	0.01300	0.01300	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.01560	-0.01560	DET	0.0150	mg/kg	J
Holloman Table 2	SW7471	S	-0.01790	-0.01790	DET	0.0143	mg/kg	J
Holloman Table 2	SW7471	S	0.01640	0.01640	DET	0.0158	mg/kg	
Holloman Table 2	SW7471	S	0.06490	0.06490	DET	0.0156	mg/kg	
Holloman Table 2	SW7471	S	0.01880	0.01880	DET	0.0150	mg/kg	
Holloman Table 2	SW7471	S	-0.00658	-0.00658	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.02430	-0.02430	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	-0.02630	-0.02630	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.01430	-0.01430	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	0.01920	0.01920	DET	0.0154	mg/kg	B
Holloman Table 2	SW7471	S	0.04110	0.04110	DET	0.0164	mg/kg	B
Holloman Table 2	SW7471	S	0.00321	0.00321	DET	0.0154	mg/kg	BJ
Holloman Table 2	SW7471	S	0.03260	0.03260	DET	0.0174	mg/kg	B
Holloman Table 2	SW7471	S	-0.06490	-0.06490	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.02430	-0.02430	DET	0.0167	mg/kg	J

N = 22

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Nickel ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	18	18	DET	3	mg/kg	
Walk Hydell	SW6010	S	11	11	DET	3	mg/kg	
Walk Hydell	SW6010	S	13	13	DET	3	mg/kg	
Walk Hydell	SW6010	S	1	1	DET	3	mg/kg	
Walk Hydell	SW6010	S	5	5	DET	3	mg/kg	

N = 5

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Selenium --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	3.81	3.81	DET	0.298	mg/kg	B
Holloman Table 2	SW7740	S	4.18	4.18	DET	0.261	mg/kg	B
Holloman Table 2	SW7740	S	4.64	4.64	DET	0.287	mg/kg	B

------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Selenium --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	3.520	3.520	DET	0.282	mg/kg	B
Holloman Table 2	SW7740	S	3.970	3.970	DET	0.238	mg/kg	B
Holloman Table 2	SW7740	S	3.840	3.840	DET	0.276	mg/kg	B
Holloman Table 2	SW7740	S	1.090	1.090	DET	0.281	mg/kg	
Holloman Table 2	SW7740	S	1.750	1.750	DET	0.277	mg/kg	
Holloman Table 2	SW7740	S	2.160	2.160	DET	0.258	mg/kg	
Holloman Table 2	SW7740	S	2.760	2.760	DET	0.299	mg/kg	
Holloman Table 2	SW7740	S	3.090	3.090	DET	0.274	mg/kg	B
Holloman Table 2	SW7740	S	3.300	3.300	DET	0.238	mg/kg	B
Holloman Table 2	SW7740	S	1.970	1.970	DET	0.243	mg/kg	
Holloman Table 2	SW7740	S	1.860	1.860	DET	0.267	mg/kg	
Holloman Table 2	SW7740	S	2.070	2.070	DET	0.237	mg/kg	
Holloman Table 2	SW7740	S	0.955	0.955	DET	0.234	mg/kg	
Holloman Table 2	SW7740	S	-1.250	-1.250	DET	0.210	mg/kg	J
Holloman Table 2	SW7740	S	-0.588	-0.588	DET	0.256	mg/kg	J
Holloman Table 2	SW7740	S	-0.383	-0.383	DET	0.244	mg/kg	J
Holloman Table 2	SW7740	S	0.380	0.380	DET	0.277	mg/kg	
Holloman Table 2	SW7740	S	3.580	3.580	DET	0.259	mg/kg	B
Holloman Table 2	SW7740	S	4.290	4.290	DET	0.320	mg/kg	B

N = 22

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Silver ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.6450	0.6450	DET	0.170	mg/kg	
Holloman Table 2	SW6010	S	-0.2920	-0.2920	DET	0.168	mg/kg	J
Holloman Table 2	SW6010	S	0.0907	0.0907	DET	0.195	mg/kg	J
Holloman Table 2	SW6010	S	0.2000	0.2000	DET	0.170	mg/kg	
Holloman Table 2	SW6010	S	-0.5950	-0.5950	DET	0.152	mg/kg	J
Holloman Table 2	SW6010	S	0.4510	0.4510	DET	0.147	mg/kg	
Holloman Table 2	SW6010	S	-0.2090	-0.2090	DET	0.157	mg/kg	J
Holloman Table 2	SW6010	S	-1.1500	-1.1500	DET	0.163	mg/kg	J
Holloman Table 2	SW6010	S	-0.8070	-0.8070	DET	0.171	mg/kg	J
Holloman Table 2	SW6010	S	-1.0600	-1.0600	DET	0.192	mg/kg	J
Holloman Table 2	SW6010	S	-0.5700	-0.5700	DET	0.186	mg/kg	J
Holloman Table 2	SW6010	S	-0.8030	-0.8030	DET	0.192	mg/kg	J
Holloman Table 2	SW6010	S	-0.4470	-0.4470	DET	0.153	mg/kg	J
Holloman Table 2	SW6010	S	-0.4510	-0.4510	DET	0.175	mg/kg	J
Holloman Table 2	SW6010	S	-0.2460	-0.2460	DET	0.168	mg/kg	J
Holloman Table 2	SW6010	S	-0.3240	-0.3240	DET	0.149	mg/kg	J
Holloman Table 2	SW6010	S	-0.1770	-0.1770	DET	0.133	mg/kg	BJ
Holloman Table 2	SW6010	S	0.5870	0.5870	DET	0.193	mg/kg	B
Holloman Table 2	SW6010	S	-0.0423	-0.0423	DET	0.158	mg/kg	BJ

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Silver ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.369	0.369	DET	0.153	mg/kg	8
Holloman Table 2	SW6010	S	-0.178	-0.178	DET	0.184	mg/kg	J
Holloman Table 2	SW6010	S	0.463	0.463	DET	0.164	mg/kg	
Walk Hydell	SW6010	S	1.000	1.000	DET	2.000	mg/kg	
Walk Hydell	SW6010	S	2.000	2.000	DET	2.000	mg/kg	
Walk Hydell	SW6010	S	3.000	3.000	DET	2.000	mg/kg	
Walk Hydell	SW6010	S	0.500	0.500	DET	2.000	mg/kg	
Walk Hydell	SW6010	S	0.500	0.500	DET	2.000	mg/kg	

N = 27

-------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Sodium ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	2105	2105	DET	140	mg/kg	
Walk Hydell	SW6010	S	1149	1149	DET	140	mg/kg	
Walk Hydell	SW6010	S	1052	1052	DET	140	mg/kg	
Walk Hydell	SW6010	S	151	151	DET	140	mg/kg	
Walk Hydell	SW6010	S	292	292	DET	140	mg/kg	

N = 5

--------- SWMUs Group=54/55/21/22/123 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW6010	S	33	33	DET	1	mg/kg	
Walk Hydell	SW6010	S	24	24	DET	1	mg/kg	
Walk Hydell	SW6010	S	29	29	DET	1	mg/kg	
Walk Hydell	SW6010	S	4	4	DET	1	mg/kg	
Walk Hydell	SW6010	S	9	9	DET	1	mg/kg	

N = 5

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=1,1-Dichloroethene ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.21572	ND	.00325	mg/kg	
Holloman Table 2	SW8240	S	.	0.43137	ND	.00329	mg/kg	

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=1,1-Dichloroethene ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.33535	ND	0.00320	mg/kg	
Holloman Table 2	SW8240	S	.	0.19293	ND	0.00315	mg/kg	
Holloman Table 2	SW8240	S	.	0.42275	ND	0.00314	mg/kg	
Holloman Table 2	SW8240	S	.	0.14749	ND	0.00331	mg/kg	
Holloman Table 2	SW8240	S	.	0.10656	ND	0.00280	mg/kg	
Holloman Table 2	SW8240	S	.	0.41189	ND	0.00269	mg/kg	
Holloman Table 2	SW8240	S	.	0.36352	ND	0.00323	mg/kg	
Holloman Table 2	SW8240	S	.	0.19397	ND	0.00284	mg/kg	
Holloman Table 2	SW8240	S	.	0.28677	ND	0.00308	mg/kg	
Holloman Table 2	SW8240	S	.	0.16357	ND	0.00300	mg/kg	
Holloman Table 2	SW8240	S	.	0.24485	ND	0.00283	mg/kg	
Holloman Table 2	SW8240	S	.	0.07024	ND	0.00379	mg/kg	
Holloman Table 2	SW8240	S	.	0.21751	ND	0.00356	mg/kg	
Holloman Table 2	SW8240	S	.	0.26497	ND	0.00391	mg/kg	
Holloman Table 2	SW8240	S	0.464	0.46400	DET	0.83300	mg/kg	J
Holloman Table 2	SW8240	S	7.210	7.21000	DET	8.93000	mg/kg	J
Holloman Table 2	SW8240	S	.	0.02450	ND	0.00347	mg/kg	
Holloman Table 2	SW8240	S	0.569	0.56900	DET	0.74700	mg/kg	J
Holloman Table 2	SW8240	S	.	0.45014	ND	0.00310	mg/kg	
Holloman Table 2	SW8240	S	.	0.27565	ND	0.00331	mg/kg	
Walk Hydell	SW8240	S	.	0.01513	ND	0.00521	mg/kg	
Walk Hydell	SW8240	S	.	0.13617	ND	6.15800	mg/kg	&**
Walk Hydell	SW8240	S	.	0.05739	ND	6.21100	mg/kg	&**
Walk Hydell	SW8240	S	.	0.04876	ND	6.60500	mg/kg	&**
Walk Hydell	SW8240	S	.	0.02312	ND	0.00500	mg/kg	
Walk Hydell	SW8240	S	.	0.31818	ND	0.00700	mg/kg	
Walk Hydell	SW8240	S	.	0.22547	ND	0.00600	mg/kg	
Walk Hydell	SW8240	S	.	0.10864	ND	0.00700	mg/kg	

N = 30

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2,4-Dimethylphenol ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	2.3479	ND	36.6	ug/kg	
Holloman Table 2	SW8270	S	.	6.5945	ND	37.3	ug/kg	
Holloman Table 2	SW8270	S	.	11.1405	ND	36.2	ug/kg	
Holloman Table 2	SW8270	S	.	1.3763	ND	35.9	ug/kg	
Holloman Table 2	SW8270	S	.	10.2728	ND	35.5	ug/kg	
Holloman Table 2	SW8270	S	.	1.8907	ND	37.3	ug/kg	
Holloman Table 2	SW8270	S	.	4.7640	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	12.3376	ND	33.8	ug/kg	
Holloman Table 2	SW8270	S	.	11.7813	ND	1040.0	ug/kg	
Holloman Table 2	SW8270	S	.	2.4603	ND	1150.0	ug/kg	

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2,4-Dimethylphenol ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	4.8374	ND	111.00	ug/kg	
Holloman Table 2	SW8270	S	.	11.6058	ND	1200.00	ug/kg	
Holloman Table 2	SW8270	S	.	12.3101	ND	35.00	ug/kg	
Holloman Table 2	SW8270	S	.	12.6039	ND	37.50	ug/kg	
Walk Hydell	SW8270	S	.	15.1645	ND	688.22	ug/kg	
Walk Hydell	SW8270	S	.	11.2871	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	9.0116	ND	707.40	ug/kg	
Walk Hydell	SW8270	S	.	8.8233	ND	756.88	ug/kg	
Walk Hydell	SW8270	S	.	10.9202	ND	661.32	ug/kg	
Walk Hydell	SW8270	S	.	13.3142	ND	670.05	ug/kg	
Walk Hydell	SW8270	S	.	1.9915	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	3.1056	ND	667.34	ug/kg	
Walk Hydell	SW8270	S	.	1.5801	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	13.9807	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	6.9440	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	8.3039	ND	689.66	ug/kg	
Walk Hydell	SW8270	S	.	3.2088	ND	695.47	ug/kg	
Walk Hydell	SW8270	S	.	3.2277	ND	745.76	ug/kg	
Walk Hydell	SW8270	S	.	13.9268	ND	749.15	ug/kg	
Walk Hydell	SW8270	S	.	10.0316	ND	718.17	ug/kg	
Walk Hydell	SW8270	S	.	3.5294	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	4.9042	ND	698.41	ug/kg	
Walk Hydell	SW8270	S	.	1.9538	ND	671.41	ug/kg	
Walk Hydell	SW8270	S	17	17.0000	DET	10.00	ug/kg	
Walk Hydell	SW8270	S	.	14.3595	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	3.4796	ND	406.00	ug/kg	
Walk Hydell	SW8270	S	.	12.6614	ND	410.00	ug/kg	
Walk Hydell	SW8270	S	.	11.4225	ND	451.00	ug/kg	+
Walk Hydell	SW8270	S	.	5.9920	ND	427.00	ug/kg	+
Walk Hydell	SW8270	S	.	5.7613	ND	467.00	ug/kg	

N = 40

------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2-Hexanone --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0022499	ND	.00771	mg/kg	
Holloman Table 2	SW8240	S	.	.0021135	ND	.00782	mg/kg	
Holloman Table 2	SW8240	S	.0037	.0037000	DET	.00760	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0011999	ND	.00749	mg/kg	
Holloman Table 2	SW8240	S	.	.0014171	ND	.00746	mg/kg	
Holloman Table 2	SW8240	S	.	.0007950	ND	.00786	mg/kg	
Holloman Table 2	SW8240	S	.	.0016891	ND	.00104	mg/kg	
Holloman Table 2	SW8240	S	.	.0001656	ND	.00100	mg/kg	

------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2-Hexanone --------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0022610	ND	0.0034	mg/kg	
Holloman Table 2	SW8240	S	.	.0019055	ND	0.0011	mg/kg	
Holloman Table 2	SW8240	S	.0068	.0068000	DET	0.0073	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0006428	ND	0.0071	mg/kg	
Holloman Table 2	SW8240	S	.	.0001434	ND	0.0011	mg/kg	
Holloman Table 2	SW8240	S	.	.0008551	ND	0.0040	mg/kg	
Holloman Table 2	SW8240	S	.	.0002243	ND	0.0037	mg/kg	
Holloman Table 2	SW8240	S	.	.0025262	ND	0.0041	mg/kg	
Holloman Table 2	SW8240	S	.	.0001561	ND	0.9860	mg/kg	
Holloman Table 2	SW8240	S	.	.0024789	ND	10.6000	mg/kg	
Holloman Table 2	SW8240	S	.	.0011786	ND	0.0036	mg/kg	
Holloman Table 2	SW8240	S	.	.0036694	ND	0.8840	mg/kg	
Holloman Table 2	SW8240	S	.	.0027625	ND	0.0074	mg/kg	
Holloman Table 2	SW8240	S	.	.0024940	ND	0.0079	mg/kg	
Walk Hydell	SW8240	S	.	.0025369	ND	0.0521	mg/kg	
Walk Hydell	SW8240	S	.	.0021226	ND	61.5760	mg/kg	&**
Walk Hydell	SW8240	S	.	.0003427	ND	62.1120	mg/kg	&**
Walk Hydell	SW8240	S	.	.0009830	ND	6.6050	mg/kg	&**
Walk Hydell	SW8240	S	.	.0013159	ND	0.0500	mg/kg	
Walk Hydell	SW8240	S	.	.0029399	ND	0.0680	mg/kg	
Walk Hydell	SW8240	S	.	.0036558	ND	0.0650	mg/kg	
Walk Hydell	SW8240	S	.	.0033522	ND	0.0710	mg/kg	

N = 30

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2-Methylnaphthalene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	253.85	ND	26.30	ug/kg	
Holloman Table 2	SW8270	S	.	1063.41	ND	26.90	ug/kg	
Holloman Table 2	SW8270	S	.	1310.09	ND	26.00	ug/kg	
Holloman Table 2	SW8270	S	.	42.29	ND	25.80	ug/kg	
Holloman Table 2	SW8270	S	.	1311.22	ND	25.60	ug/kg	
Holloman Table 2	SW8270	S	.	305.89	ND	26.90	ug/kg	
Holloman Table 2	SW8270	S	.	94.58	ND	25.40	ug/kg	
Holloman Table 2	SW8270	S	.	1286.32	ND	24.40	ug/kg	
Holloman Table 2	SW8270	S	3110	3110.00	DET	859.00	ug/kg	
Holloman Table 2	SW8270	S	4380	4380.00	DET	951.00	ug/kg	
Holloman Table 2	SW8270	S	.	896.79	ND	92.00	ug/kg	
Holloman Table 2	SW8270	S	1430	1430.00	DET	991.00	ug/kg	
Holloman Table 2	SW8270	S	.	1426.19	ND	25.20	ug/kg	
Holloman Table 2	SW8270	S	.	1304.08	ND	27.00	ug/kg	
Walk Hydell	SW8270	S	.	663.68	ND	688.22	ug/kg	
Walk Hydell	SW8270	S	.	1038.77	ND	660.00	ug/kg	

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=2-Methylnaphthalene ---
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW8270	S	.	1058.61	ND	707.40	ug/kg	
Walk Hydell	SW8270	S	.	210.92	ND	756.88	ug/kg	
Walk Hydell	SW8270	S	.	1392.88	ND	661.32	ug/kg	
Walk Hydell	SW8270	S	.	1271.77	ND	670.05	ug/kg	
Walk Hydell	SW8270	S	.	1078.43	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	797.71	ND	667.34	ug/kg	
Walk Hydell	SW8270	S	.	604.90	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	733.95	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	1051.41	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	589.79	ND	689.66	ug/kg	
Walk Hydell	SW8270	S	.	936.94	ND	695.47	ug/kg	
Walk Hydell	SW8270	S	.	1089.18	ND	745.76	ug/kg	
Walk Hydell	SW8270	S	.	885.28	ND	749.15	ug/kg	
Walk Hydell	SW8270	S	.	871.91	ND	718.17	ug/kg	
Walk Hydell	SW8270	S	.	1307.56	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	186.52	ND	698.41	ug/kg	
Walk Hydell	SW8270	S	.	1067.51	ND	671.41	ug/kg	
Walk Hydell	SW8270	S	.	904.98	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	961.49	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	153.15	ND	406.00	ug/kg	
Walk Hydell	SW8270	S	.	807.03	ND	410.00	ug/kg	
Walk Hydell	SW8270	S	.	748.24	ND	451.00	ug/kg	+
Walk Hydell	SW8270	S	.	854.83	ND	427.00	ug/kg	+
Walk Hydell	SW8270	S	.	348.22	ND	467.00	ug/kg	

N = 40

SWMUs Group=54/55/21/22/123 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0024919	ND	.003430	mg/kg	
Holloman Table 2	SW8240	S	.00258	.0025800	DET	.003480	mg/kg	BJ
Holloman Table 2	SW8240	S	.00291	.0029100	DET	.003390	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0001284	ND	.003340	mg/kg	
Holloman Table 2	SW8240	S	.	.0025142	ND	.003320	mg/kg	
Holloman Table 2	SW8240	S	.	.0012927	ND	.003500	mg/kg	
Holloman Table 2	SW8240	S	.	.0023350	ND	.000997	mg/kg	
Holloman Table 2	SW8240	S	.	.0013695	ND	.000958	mg/kg	
Holloman Table 2	SW8240	S	.	.0001079	ND	.001890	mg/kg	
Holloman Table 2	SW8240	S	.	.0004562	ND	.001010	mg/kg	
Holloman Table 2	SW8240	S	.00579	.0057900	DET	.003260	mg/kg	B
Holloman Table 2	SW8240	S	.	.0019420	ND	.003170	mg/kg	
Holloman Table 2	SW8240	S	.	.0020646	ND	.001010	mg/kg	
Holloman Table 2	SW8240	S	.	.0019048	ND	.002220	mg/kg	

SWMUs Group=54/55/21/22/123 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK)
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0003889	ND	0.0021	mg/kg	
Holloman Table 2	SW8240	S	.	.0001447	ND	0.0023	mg/kg	
Holloman Table 2	SW8240	S	.	.0016393	ND	0.8520	mg/kg	
Holloman Table 2	SW8240	S	.	.0017454	ND	9.1300	mg/kg	
Holloman Table 2	SW8240	S	.	.0003491	ND	0.0020	mg/kg	
Holloman Table 2	SW8240	S	.	.0006964	ND	0.7640	mg/kg	
Holloman Table 2	SW8240	S	.	.0019897	ND	0.0033	mg/kg	
Holloman Table 2	SW8240	S	.	.0005131	ND	0.0035	mg/kg	
Walk Hydell	SW8240	S	.	.0020611	ND	0.0521	mg/kg	
Walk Hydell	SW8240	S	.	.0004958	ND	61.5760	mg/kg	&**
Walk Hydell	SW8240	S	.	.0017540	ND	62.1120	mg/kg	&**
Walk Hydell	SW8240	S	.	.0001326	ND	6.6050	mg/kg	&**
Walk Hydell	SW8240	S	.	.0009352	ND	0.0500	mg/kg	
Walk Hydell	SW8240	S	.	.0012852	ND	0.0680	mg/kg	
Walk Hydell	SW8240	S	.	.0010619	ND	0.0650	mg/kg	
Walk Hydell	SW8240	S	.	.0023625	ND	0.0710	mg/kg	

N = 30

----- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=4-Methylphenol ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW8270	S	.	18.8629	ND	688.22	ug/kg	
Walk Hydell	SW8270	S	.	17.3192	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	2.2426	ND	707.40	ug/kg	
Walk Hydell	SW8270	S	.	8.8193	ND	756.88	ug/kg	
Walk Hydell	SW8270	S	.	14.8812	ND	661.32	ug/kg	
Walk Hydell	SW8270	S	.	12.2821	ND	670.05	ug/kg	
Walk Hydell	SW8270	S	.	13.5076	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	16.1055	ND	667.34	ug/kg	
Walk Hydell	SW8270	S	.	12.0211	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	11.0478	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	1.6195	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	10.8439	ND	689.66	ug/kg	
Walk Hydell	SW8270	S	.	2.2531	ND	695.47	ug/kg	
Walk Hydell	SW8270	S	.	16.8316	ND	745.76	ug/kg	
Walk Hydell	SW8270	S	.	3.4624	ND	749.15	ug/kg	
Walk Hydell	SW8270	S	.	13.1617	ND	718.17	ug/kg	
Walk Hydell	SW8270	S	.	11.8030	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	11.7381	ND	698.41	ug/kg	
Walk Hydell	SW8270	S	.	18.8768	ND	671.41	ug/kg	
Walk Hydell	SW8270	S	19	19.0000	DET	10.00	ug/kg	
Walk Hydell	SW8270	S	.	9.8171	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	12.2448	ND	406.00	ug/kg	

----- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=4-Methylphenol ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Walk Hydell	SW8270	S	.	3.5999	NO	410	ug/kg	
Walk Hydell	SW8270	S	.	5.6715	ND	451	ug/kg	+
Walk Hydell	SW8270	S	.	3.3045	ND	427	ug/kg	+
Walk Hydell	SW8270	S	.	16.1141	ND	467	ug/kg	

N = 26

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Acetone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00824	0.00824	DET	0.020	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01270	0.01270	DET	0.020	mg/kg	BJ
Holloman Table 2	SW8240	S	0.14700	0.14700	DET	0.020	mg/kg	B
Holloman Table 2	SW8240	S	0.16600	0.16600	DET	0.019	mg/kg	B
Holloman Table 2	SW8240	S	0.00797	0.00797	DET	0.019	mg/kg	BJ
Holloman Table 2	SW8240	S	0.51500	0.51500	DET	0.050	mg/kg	B
Holloman Table 2	SW8240	S	0.01290	0.01290	DET	0.002	mg/kg	B
Holloman Table 2	SW8240	S	0.01000	0.01000	DET	0.002	mg/kg	B
Holloman Table 2	SW8240	S	0.01320	0.01320	DET	0.029	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01270	0.01270	DET	0.002	mg/kg	B
Holloman Table 2	SW8240	S	0.02300	0.02300	DET	0.019	mg/kg	B
Holloman Table 2	SW8240	S	0.02730	0.02730	DET	0.019	mg/kg	B
Holloman Table 2	SW8240	S	0.01250	0.01250	DET	0.002	mg/kg	B
Holloman Table 2	SW8240	S	0.01080	0.01080	DET	0.034	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01110	0.01110	DET	0.032	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01590	0.01590	DET	0.035	mg/kg	BJ
Holloman Table 2	SW8240	S	.	0.00175	ND	1.330	mg/kg	
Holloman Table 2	SW8240	S	.	0.00631	ND	14.300	mg/kg	
Holloman Table 2	SW8240	S	0.77800	0.77800	DET	0.144	mg/kg	B
Holloman Table 2	SW8240	S	.	0.00787	ND	1.190	mg/kg	
Holloman Table 2	SW8240	S	0.12400	0.12400	DET	0.019	mg/kg	B
Holloman Table 2	SW8240	S	0.02880	0.02880	DET	0.020	mg/kg	B
Walk Hydell	SW8240	S	.	0.00568	ND	0.005	mg/kg	
Walk Hydell	SW8240	S	.	0.00013	ND	123.153	mg/kg	&**
Walk Hydell	SW8240	S	.	0.00777	ND	124.224	mg/kg	&**
Walk Hydell	SW8240	S	.	0.00053	ND	132.100	mg/kg	&**
Walk Hydell	SW8240	S	.	0.00753	ND	0.100	mg/kg	
Walk Hydell	SW8240	S	.	0.00036	ND	0.137	mg/kg	
Walk Hydell	SW8240	S	.	0.00708	ND	0.129	mg/kg	
Walk Hydell	SW8240	S	.	0.00484	ND	0.141	mg/kg	

N = 30

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Benzene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.2688	ND	0.0014	mg/kg	
Holloman Table 2	SW8240	S	.	0.2719	ND	0.0014	mg/kg	
Holloman Table 2	SW8240	S	.	0.0977	ND	0.0014	mg/kg	
Holloman Table 2	SW8240	S	.	0.3303	ND	0.0013	mg/kg	
Holloman Table 2	SW8240	S	.	0.3250	ND	0.0013	mg/kg	
Holloman Table 2	SW8240	S	.	0.4465	ND	0.0014	mg/kg	
Holloman Table 2	SW8240	S	.	0.6141	ND	0.0019	mg/kg	
Holloman Table 2	SW8240	S	.	0.6975	ND	0.0018	mg/kg	
Holloman Table 2	SW8240	S	.	0.2303	ND	0.0018	mg/kg	
Holloman Table 2	SW8240	S	.	0.6524	ND	0.0019	mg/kg	
Holloman Table 2	SW8240	S	.	0.4052	ND	0.0013	mg/kg	
Holloman Table 2	SW8240	S	.	0.3199	ND	0.0013	mg/kg	
Holloman Table 2	SW8240	S	.	0.3601	ND	0.0019	mg/kg	
Holloman Table 2	SW8240	S	.	0.0696	ND	0.0021	mg/kg	
Holloman Table 2	SW8240	S	.	0.6860	ND	0.0020	mg/kg	
Holloman Table 2	SW8240	S	.	0.2561	ND	0.0022	mg/kg	
Holloman Table 2	SW8240	S	0.742	0.7420	DET	1.1500	mg/kg	J
Holloman Table 2	SW8240	S	54.000	54.0000	DET	12.3000	mg/kg	
Holloman Table 2	SW8240	S	.	0.2169	ND	0.0019	mg/kg	
Holloman Table 2	SW8240	S	12.800	12.8000	DET	1.0300	mg/kg	
Holloman Table 2	SW8240	S	.	0.3305	ND	0.0013	mg/kg	
Holloman Table 2	SW8240	S	.	0.4006	ND	0.0014	mg/kg	
Walk Hydell	SW8240	S	.	0.4691	ND	0.0052	mg/kg	
Walk Hydell	SW8240	S	.	0.0154	ND	6.1580	mg/kg	&**
Walk Hydell	SW8240	S	.	0.6342	ND	6.2110	mg/kg	&**
Walk Hydell	SW8240	S	.	0.3409	ND	6.6050	mg/kg	&**
Walk Hydell	SW8240	S	.	0.3367	ND	0.0050	mg/kg	
Walk Hydell	SW8240	S	.	0.4969	ND	0.0070	mg/kg	
Walk Hydell	SW8240	S	.	0.4653	ND	0.0060	mg/kg	
Walk Hydell	SW8240	S	.	0.6559	ND	0.0070	mg/kg	
Woodward Clyde	SW8240	S	.	0.5058	ND	0.0020	mg/kg	U
Woodward Clyde	SW8240	S	.	0.2152	ND	0.0020	mg/kg	U
Woodward Clyde	SW8240	S	.	0.1306	ND	0.0020	mg/kg	U
Woodward Clyde	SW8240	S	.	0.1036	ND	1.0000	mg/kg	DU
Woodward Clyde	SW8240	S	.	0.0222	ND	0.2000	mg/kg	DU
Woodward Clyde	SW8240	S	3.400	3.4000	DET	4.0000	mg/kg	DJ
Woodward Clyde	SW8240	S	.	0.1201	ND	2.0000	mg/kg	DUJ
Woodward Clyde	SW8240	S	.	0.5229	ND	0.0020	mg/kg	U
Woodward Clyde	SW8240	S	.	0.2125	ND	0.0020	mg/kg	U

N = 39

---- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Carbon disulfide -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.003330	ND	0.0036	mg/kg	
Holloman Table 2	SW8240	S	.	0.008242	ND	0.0037	mg/kg	
Holloman Table 2	SW8240	S	.	0.009811	ND	0.0036	mg/kg	
Holloman Table 2	SW8240	S	.	0.006187	ND	0.0035	mg/kg	
Holloman Table 2	SW8240	S	.	0.004905	ND	0.0035	mg/kg	
Holloman Table 2	SW8240	S	.	0.008466	ND	0.0037	mg/kg	
Holloman Table 2	SW8240	S	.	0.005162	ND	0.0028	mg/kg	
Holloman Table 2	SW8240	S	.	0.009102	ND	0.0027	mg/kg	
Holloman Table 2	SW8240	S	.	0.002178	ND	0.0048	mg/kg	
Holloman Table 2	SW8240	S	.	0.002470	ND	0.0029	mg/kg	
Holloman Table 2	SW8240	S	.	0.008638	ND	0.0034	mg/kg	
Holloman Table 2	SW8240	S	.	0.007605	ND	0.0034	mg/kg	
Holloman Table 2	SW8240	S	.	0.006470	ND	0.0029	mg/kg	
Holloman Table 2	SW8240	S	.	0.008652	ND	0.0056	mg/kg	
Holloman Table 2	SW8240	S	.	0.001168	ND	0.0052	mg/kg	
Holloman Table 2	SW8240	S	.	0.010077	ND	0.0057	mg/kg	
Holloman Table 2	SW8240	S	.	0.012719	ND	1.0800	mg/kg	
Holloman Table 2	SW8240	S	.	0.001160	ND	11.6000	mg/kg	
Holloman Table 2	SW8240	S	0.0132	0.013200	DET	0.0051	mg/kg	
Holloman Table 2	SW8240	S	.	0.000822	ND	0.9670	mg/kg	
Holloman Table 2	SW8240	S	.	0.009850	ND	0.0035	mg/kg	
Holloman Table 2	SW8240	S	.	0.006673	ND	0.0037	mg/kg	
Walk Hydell	SW8240	S	.	0.012232	ND	0.0052	mg/kg	
Walk Hydell	SW8240	S	.	0.008974	ND	6.1580	mg/kg	&**
Walk Hydell	SW8240	S	.	0.012885	ND	6.2110	mg/kg	&**
Walk Hydell	SW8240	S	.	0.011373	ND	6.6050	mg/kg	&**
Walk Hydell	SW8240	S	.	0.012716	ND	0.0050	mg/kg	
Walk Hydell	SW8240	S	.	0.010972	ND	0.0070	mg/kg	
Walk Hydell	SW8240	S	.	0.012758	ND	0.0060	mg/kg	
Walk Hydell	SW8240	S	.	0.005404	ND	0.0070	mg/kg	

N = 30

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Dibenzofuran -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	97.901	ND	25.1	ug/kg	
Holloman Table 2	SW8270	S	.	11.282	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	5.785	ND	24.8	ug/kg	
Holloman Table 2	SW8270	S	.	450.476	ND	24.6	ug/kg	
Holloman Table 2	SW8270	S	.	355.197	ND	24.4	ug/kg	
Holloman Table 2	SW8270	S	.	261.230	ND	25.6	ug/kg	
Holloman Table 2	SW8270	S	.	429.003	ND	24.2	ug/kg	
Holloman Table 2	SW8270	S	.	173.147	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	167.214	ND	655.0	ug/kg	

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Dibenzofuran -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	471	471.000	DET	725.00	ug/kg	J
Holloman Table 2	SW8270	S	.	353.005	ND	70.20	ug/kg	
Holloman Table 2	SW8270	S	.	228.154	ND	756.00	ug/kg	
Holloman Table 2	SW8270	S	.	158.637	ND	24.10	ug/kg	
Holloman Table 2	SW8270	S	.	429.360	ND	25.70	ug/kg	
Walk Hydell	SW8270	S	.	63.671	ND	688.22	ug/kg	
Walk Hydell	SW8270	S	.	437.004	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	458.656	ND	707.40	ug/kg	
Walk Hydell	SW8270	S	.	18.534	ND	756.88	ug/kg	
Walk Hydell	SW8270	S	.	87.284	ND	661.32	ug/kg	
Walk Hydell	SW8270	S	.	426.946	ND	670.05	ug/kg	
Walk Hydell	SW8270	S	.	209.483	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	418.434	ND	667.34	ug/kg	
Walk Hydell	SW8270	S	.	12.856	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	330.718	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	316.488	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	212.808	ND	689.66	ug/kg	
Walk Hydell	SW8270	S	.	260.700	ND	695.47	ug/kg	
Walk Hydell	SW8270	S	.	98.816	ND	745.76	ug/kg	
Walk Hydell	SW8270	S	.	72.677	ND	749.15	ug/kg	
Walk Hydell	SW8270	S	.	209.116	ND	718.17	ug/kg	
Walk Hydell	SW8270	S	.	96.530	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	104.796	ND	698.41	ug/kg	
Walk Hydell	SW8270	S	.	207.765	ND	671.41	ug/kg	
Walk Hydell	SW8270	S	.	319.217	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	86.070	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	11.835	ND	406.00	ug/kg	
Walk Hydell	SW8270	S	.	216.141	ND	410.00	ug/kg	
Walk Hydell	SW8270	S	.	94.772	ND	451.00	ug/kg	+
Walk Hydell	SW8270	S	.	381.811	ND	427.00	ug/kg	+
Walk Hydell	SW8270	S	.	311.071	ND	467.00	ug/kg	

N = 40

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Ethyl benzene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0050217	ND	.00131	mg/kg	
Holloman Table 2	SW8240	S	.	.0069089	ND	.00133	mg/kg	
Holloman Table 2	SW8240	S	.	.0046507	ND	.00129	mg/kg	
Holloman Table 2	SW8240	S	.	.0013401	ND	.00127	mg/kg	
Holloman Table 2	SW8240	S	.	.0020303	ND	.00127	mg/kg	
Holloman Table 2	SW8240	S	.	.0077552	ND	.00134	mg/kg	
Holloman Table 2	SW8240	S	.	.0031161	ND	.00180	mg/kg	

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Ethyl benzene ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.002	ND	0.00173	mg/kg	
Holloman Table 2	SW8240	S	.	0.008	ND	0.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.008	ND	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.003	ND	0.00124	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.00121	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.002	ND	0.00220	mg/kg	
Holloman Table 2	SW8240	S	.	0.005	ND	0.00206	mg/kg	
Holloman Table 2	SW8240	S	.	0.002	ND	0.00227	mg/kg	
Holloman Table 2	SW8240	S	20.500	20.500	DET	0.76200	mg/kg	
Holloman Table 2	SW8240	S	229.000	229.000	DET	8.18000	mg/kg	
Holloman Table 2	SW8240	S	.	0.007	ND	0.00201	mg/kg	
Holloman Table 2	SW8240	S	36.800	36.800	DET	0.68400	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.00125	mg/kg	
Holloman Table 2	SW8240	S	.	0.003	ND	0.00134	mg/kg	
Walk Hydell	SW8240	S	.	0.006	ND	0.00521	mg/kg	
Walk Hydell	SW8240	S	20.000	20.000	DET	0.00500	mg/kg	&**
Walk Hydell	SW8240	S	7.000	7.000	DET	0.00500	mg/kg	&**
Walk Hydell	SW8240	S	.	0.002	ND	6.60500	mg/kg	&**
Walk Hydell	SW8240	S	0.008	0.008	DET	0.00500	mg/kg	
Walk Hydell	SW8240	S	.	0.004	ND	0.00700	mg/kg	
Walk Hydell	SW8240	S	.	0.005	ND	0.00600	mg/kg	
Walk Hydell	SW8240	S	.	0.004	ND	0.00700	mg/kg	
Woodward Clyde	SW8240	S	.	0.000	ND	0.00800	mg/kg	U
Woodward Clyde	SW8240	S	.	0.007	ND	0.00800	mg/kg	U
Woodward Clyde	SW8240	S	.	0.004	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.003	ND	1.00000	mg/kg	DU
Woodward Clyde	SW8240	S	.	0.006	ND	0.20000	mg/kg	DU
Woodward Clyde	SW8240	S	62.000	62.000	DET	.	mg/kg	DJ
Woodward Clyde	SW8240	S	47.000	47.000	DET	2.00000	mg/kg	D
Woodward Clyde	SW8240	S	.	0.007	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.008	ND	0.00200	mg/kg	U

N = 39

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Hydrocarbons -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-4.66	-4.66	DET	33.7	mg/kg	J
Holloman Table 2	E418.1	S	-4.76	-4.76	DET	34.5	mg/kg	J
Holloman Table 2	E418.1	S	-1.11	-1.11	DET	33.3	mg/kg	J
Holloman Table 2	E418.1	S	-4.59	-4.59	DET	33.2	mg/kg	J
Holloman Table 2	E418.1	S	-1.09	-1.09	DET	32.9	mg/kg	J
Holloman Table 2	E418.1	S	-1.15	-1.15	DET	34.5	mg/kg	J

------ SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Hydrocarbons -------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	7.00	7.00	DET	32.3	mg/kg	BJ
Holloman Table 2	E418.1	S	0.08	0.08	DET	31.4	mg/kg	BJ
Holloman Table 2	E418.1	S	60.80	60.80	DET	29.9	mg/kg	B
Holloman Table 2	E418.1	S	3.60	3.60	DET	32.9	mg/kg	BJ
Holloman Table 2	E418.1	S	19.40	19.40	DET	32.6	mg/kg	J
Holloman Table 2	E418.1	S	-1.04	-1.04	DET	31.2	mg/kg	J
Holloman Table 2	E418.1	S	7.07	7.07	DET	32.7	mg/kg	BJ
Holloman Table 2	E418.1	S	7.57	7.57	DET	35.0	mg/kg	BJ
Holloman Table 2	E418.1	S	3.59	3.59	DET	32.8	mg/kg	BJ
Holloman Table 2	E418.1	S	11.50	11.50	DET	35.7	mg/kg	BJ
Holloman Table 2	E418.1	S	1500.00	1500.00	DET	32.1	mg/kg	B
Holloman Table 2	E418.1	S	4510.00	4510.00	DET	68.5	mg/kg	B
Holloman Table 2	E418.1	S	7.40	7.40	DET	31.9	mg/kg	BJ
Holloman Table 2	E418.1	S	1930.00	1930.00	DET	36.0	mg/kg	B
Holloman Table 2	E418.1	S	-1.08	-1.08	DET	32.4	mg/kg	J
Holloman Table 2	E418.1	S	-1.15	-1.15	DET	34.6	mg/kg	J
Walk Hydell	E418.1	S	31.33	31.33	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-4.22	ND	20.0	mg/kg	
Walk Hydell	E418.1	S	.	-1.26	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-4.34	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-2.89	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-1.09	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-4.35	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-3.12	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-2.99	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	5314.93	5314.93	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-0.48	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	16.27	16.27	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-1.51	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-4.00	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-3.87	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-0.76	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-0.67	ND	15.0	mg/kg	
Walk Hydell	E418.1	S	335.00	335.00	DET	15.0	mg/kg	
Walk Hydell	E418.1	S	.	-2.71	ND	1.0	mg/kg	
Walk Hydell	E418.1	S	522.00	522.00	DET	5.0	mg/kg	
Walk Hydell	E418.1	S	104.00	104.00	DET	5.0	mg/kg	
Walk Hydell	E418.1	S	.	-0.30	ND	.	mg/kg	
Walk Hydell	E418.1	S	65.00	65.00	DET	5.0	mg/kg	
Walk Hydell	E418.1	S	.	-1.79	ND	5.0	mg/kg	

N = 46

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Methyl ethyl ketone ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0038822	ND	0.010	mg/kg	
Holloman Table 2	SW8240	S	.00633	.0063300	DET	0.010	mg/kg	BJ
Holloman Table 2	SW8240	S	.00495	.0049500	DET	0.009	mg/kg	BJ
Holloman Table 2	SW8240	S	.00801	.0080100	DET	0.009	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0039219	ND	0.009	mg/kg	
Holloman Table 2	SW8240	S	.	.0026329	ND	0.010	mg/kg	
Holloman Table 2	SW8240	S	.	.0030559	ND	0.002	mg/kg	
Holloman Table 2	SW8240	S	.	.0005765	ND	0.002	mg/kg	
Holloman Table 2	SW8240	S	.	.0036629	ND	0.004	mg/kg	
Holloman Table 2	SW8240	S	.	.0007491	ND	0.002	mg/kg	
Holloman Table 2	SW8240	S	.00980	.0098000	DET	0.009	mg/kg	B
Holloman Table 2	SW8240	S	.	.0024713	ND	0.009	mg/kg	
Holloman Table 2	SW8240	S	.	.0015812	ND	0.002	mg/kg	
Holloman Table 2	SW8240	S	.	.0016671	ND	0.005	mg/kg	
Holloman Table 2	SW8240	S	.	.0002768	ND	0.004	mg/kg	
Holloman Table 2	SW8240	S	.	.0004367	ND	0.005	mg/kg	
Holloman Table 2	SW8240	S	.	.0040674	ND	1.300	mg/kg	
Holloman Table 2	SW8240	S	.	.0049351	ND	13.900	mg/kg	
Holloman Table 2	SW8240	S	.	.0032264	ND	0.004	mg/kg	
Holloman Table 2	SW8240	S	.	.0025560	ND	1.160	mg/kg	
Holloman Table 2	SW8240	S	.	.0046625	ND	0.009	mg/kg	
Holloman Table 2	SW8240	S	.	.0023289	ND	0.010	mg/kg	
Walk Hydell	SW8240	S	.	.0048371	ND	0.104	mg/kg	
Walk Hydell	SW8240	S	.	.0021750	ND	123.153	mg/kg	&**
Walk Hydell	SW8240	S	.	.0016545	ND	124.224	mg/kg	&**
Walk Hydell	SW8240	S	.	.0000236	ND	132.100	mg/kg	&**
Walk Hydell	SW8240	S	.	.0013994	ND	0.100	mg/kg	
Walk Hydell	SW8240	S	.	.0024474	ND	0.137	mg/kg	
Walk Hydell	SW8240	S	.	.0001719	ND	0.129	mg/kg	
Walk Hydell	SW8240	S	.	.0001127	ND	0.141	mg/kg	

N = 30

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Methylene Chloride ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.001040	.001040	DET	.00284	mg/kg	J
Holloman Table 2	SW8240	S	.001020	.001020	DET	.00288	mg/kg	J
Holloman Table 2	SW8240	S	.001010	.001010	DET	.00280	mg/kg	J
Holloman Table 2	SW8240	S	.001490	.001490	DET	.00276	mg/kg	J
Holloman Table 2	SW8240	S	.000815	.000815	DET	.00275	mg/kg	J
Holloman Table 2	SW8240	S	.001100	.001100	DET	.00290	mg/kg	J
Holloman Table 2	SW8240	S	.003160	.003160	DET	.00285	mg/kg	
Holloman Table 2	SW8240	S	.005310	.005310	DET	.00273	mg/kg	
Holloman Table 2	SW8240	S	.001840	.001840	DET	.00163	mg/kg	

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Methylene Chloride ----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8240	S	0.005410	0.005410	DET
Holloman Table 2	SW8240	S	.	0.000775	ND
Holloman Table 2	SW8240	S	0.001010	0.001010	DET
Holloman Table 2	SW8240	S	0.002100	0.002100	DET
Holloman Table 2	SW8240	S	0.006700	0.006700	DET
Holloman Table 2	SW8240	S	.	0.000329	ND
Holloman Table 2	SW8240	S	0.004790	0.004790	DET
Holloman Table 2	SW8240	S	.	0.000666	ND
Holloman Table 2	SW8240	S	.	0.000761	ND
Holloman Table 2	SW8240	S	.	0.000047	ND
Holloman Table 2	SW8240	S	.	0.000085	ND
Holloman Table 2	SW8240	S	0.000894	0.000894	DET
Holloman Table 2	SW8240	S	0.000875	0.000875	DET
Walk Hydell	SW8240	S	.	0.000397	ND
Walk Hydell	SW8240	S	.	0.000038	ND
Walk Hydell	SW8240	S	.	0.000492	ND
Walk Hydell	SW8240	S	.	0.000299	ND
Walk Hydell	SW8240	S	0.020000	0.020000	DET
Walk Hydell	SW8240	S	.	0.000721	ND
Walk Hydell	SW8240	S	.	0.000414	ND
Walk Hydell	SW8240	S	.	0.000708	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8240	0.0029	mg/kg	
Holloman Table 2	SW8240	0.0027	mg/kg	
Holloman Table 2	SW8240	0.0026	mg/kg	J
Holloman Table 2	SW8240	0.0029	mg/kg	J
Holloman Table 2	SW8240	0.0019	mg/kg	
Holloman Table 2	SW8240	0.0018	mg/kg	
Holloman Table 2	SW8240	0.0020	mg/kg	
Holloman Table 2	SW8240	1.2800	mg/kg	
Holloman Table 2	SW8240	13.8000	mg/kg	
Holloman Table 2	SW8240	0.0018	mg/kg	
Holloman Table 2	SW8240	1.1500	mg/kg	
Holloman Table 2	SW8240	0.0027	mg/kg	J
Holloman Table 2	SW8240	0.0029	mg/kg	J
Walk Hydell	SW8240	0.0052	mg/kg	
Walk Hydell	SW8240	6.1580	mg/kg	&**
Walk Hydell	SW8240	6.2110	mg/kg	&**
Walk Hydell	SW8240	66.0500	mg/kg	&**
Walk Hydell	SW8240	0.0050	mg/kg	
Walk Hydell	SW8240	0.0070	mg/kg	
Walk Hydell	SW8240	0.0060	mg/kg	
Walk Hydell	SW8240	0.0070	mg/kg	

N = 30

------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Naphthalene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	394.790	ND	35.00	ug/kg	
Holloman Table 2	SW8270	S	.	309.151	ND	35.70	ug/kg	
Holloman Table 2	SW8270	S	.	270.892	ND	34.60	ug/kg	
Holloman Table 2	SW8270	S	.	239.276	ND	34.30	ug/kg	
Holloman Table 2	SW8270	S	.	83.228	ND	34.00	ug/kg	
Holloman Table 2	SW8270	S	.	31.267	ND	35.70	ug/kg	
Holloman Table 2	SW8270	S	.	39.234	ND	33.80	ug/kg	
Holloman Table 2	SW8270	S	.	144.820	ND	32.40	ug/kg	
Holloman Table 2	SW8270	S	402	402.000	DET	747.00	ug/kg	J
Holloman Table 2	SW8270	S	.	312.235	ND	827.00	ug/kg	
Holloman Table 2	SW8270	S	.	80.281	ND	80.00	ug/kg	
Holloman Table 2	SW8270	S	.	246.810	ND	862.00	ug/kg	
Holloman Table 2	SW8270	S	.	238.642	ND	33.50	ug/kg	
Holloman Table 2	SW8270	S	.	308.705	ND	35.90	ug/kg	
Walk Hydell	SW8270	S	.	193.266	ND	688.22	ug/kg	
Walk Hydell	SW8270	S	.	348.198	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	163.886	ND	707.40	ug/kg	
Walk Hydell	SW8270	S	.	190.751	ND	756.88	ug/kg	
Walk Hydell	SW8270	S	.	52.188	ND	661.32	ug/kg	
Walk Hydell	SW8270	S	.	334.688	ND	670.05	ug/kg	
Walk Hydell	SW8270	S	.	160.857	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	386.133	ND	667.34	ug/kg	
Walk Hydell	SW8270	S	.	89.907	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	325.401	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	312.038	ND	660.00	ug/kg	
Walk Hydell	SW8270	S	.	318.089	ND	689.66	ug/kg	
Walk Hydell	SW8270	S	.	117.867	ND	695.47	ug/kg	
Walk Hydell	SW8270	S	.	340.564	ND	745.76	ug/kg	
Walk Hydell	SW8270	S	.	254.695	ND	749.15	ug/kg	
Walk Hydell	SW8270	S	.	29.789	ND	718.17	ug/kg	
Walk Hydell	SW8270	S	.	84.847	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	224.443	ND	698.41	ug/kg	
Walk Hydell	SW8270	S	.	215.234	ND	671.41	ug/kg	
Walk Hydell	SW8270	S	.	57.024	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	361.942	ND	10.00	ug/kg	
Walk Hydell	SW8270	S	.	191.032	ND	406.00	ug/kg	
Walk Hydell	SW8270	S	.	391.264	ND	410.00	ug/kg	
Walk Hydell	SW8270	S	.	21.626	ND	451.00	ug/kg	+
Walk Hydell	SW8270	S	.	254.037	ND	427.00	ug/kg	+
Walk Hydell	SW8270	S	.	175.600	ND	467.00	ug/kg	

N = 40

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=TPH Heavy Fraction ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Woodward Clyde	E418.1	S	0.03	0.03	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.03	0.03	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.03	0.03	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.03	0.03	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.12	0.12	DET	0.03	mg/kg	
Woodward Clyde	E418.1	S	2.60	2.60	DET	0.15	mg/kg	D
Woodward Clyde	E418.1	S	1.30	1.30	DET	0.15	mg/kg	D
Woodward Clyde	E418.1	S	0.03	0.03	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.03	0.03	DET	0.03	mg/kg	U

N = 9

--- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=TPH Light Fraction ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Woodward Clyde	E418.1	S	0.030	0.030	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.030	0.030	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.030	0.030	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.030	0.030	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.063	0.063	DET	0.03	mg/kg	
Woodward Clyde	E418.1	S	3.100	3.100	DET	0.15	mg/kg	D
Woodward Clyde	E418.1	S	1.600	1.600	DET	0.15	mg/kg	D
Woodward Clyde	E418.1	S	0.030	0.030	DET	0.03	mg/kg	U
Woodward Clyde	E418.1	S	0.030	0.030	DET	0.03	mg/kg	U

N = 9

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Toluene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	1.06875	ND	.00270	mg/kg	
Holloman Table 2	SW8240	S	.	1.49731	ND	.00274	mg/kg	
Holloman Table 2	SW8240	S	.	0.36386	ND	.00267	mg/kg	
Holloman Table 2	SW8240	S	.	2.11685	ND	.00263	mg/kg	
Holloman Table 2	SW8240	S	.	1.47513	ND	.00262	mg/kg	
Holloman Table 2	SW8240	S	.	0.53459	ND	.00276	mg/kg	
Holloman Table 2	SW8240	S	.	0.55300	ND	.00186	mg/kg	
Holloman Table 2	SW8240	S	.	1.58406	ND	.00178	mg/kg	
Holloman Table 2	SW8240	S	.	0.41514	ND	.00176	mg/kg	
Holloman Table 2	SW8240	S	.	1.12045	ND	.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.15895	ND	.00256	mg/kg	
Holloman Table 2	SW8240	S	.	1.47006	ND	.00250	mg/kg	

--------- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Toluene ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.374	ND	0.00187	mg/kg	
Holloman Table 2	SW8240	S	.	2.022	ND	0.00206	mg/kg	
Holloman Table 2	SW8240	S	.	1.716	ND	0.00193	mg/kg	
Holloman Table 2	SW8240	S	.	1.483	ND	0.00213	mg/kg	
Holloman Table 2	SW8240	S	2.28	2.280	DET	0.47900	mg/kg	
Holloman Table 2	SW8240	S	345.00	345.000	DET	5.13000	mg/kg	
Holloman Table 2	SW8240	S	.	0.136	ND	0.00189	mg/kg	
Holloman Table 2	SW8240	S	36.30	36.300	DET	0.42900	mg/kg	
Holloman Table 2	SW8240	S	.	1.576	ND	0.00258	mg/kg	
Holloman Table 2	SW8240	S	.	1.568	ND	0.00276	mg/kg	
Walk Hydell	SW8240	S	.	1.750	ND	0.00521	mg/kg	
Walk Hydell	SW8240	S	5.00	5.000	DET	0.00500	mg/kg	&**
Walk Hydell	SW8240	S	.	2.013	ND	6.21100	mg/kg	&**
Walk Hydell	SW8240	S	.	1.617	ND	6.60500	mg/kg	&**
Walk Hydell	SW8240	S	.	0.248	ND	0.00500	mg/kg	
Walk Hydell	SW8240	S	.	0.951	ND	0.00700	mg/kg	
Walk Hydell	SW8240	S	.	1.993	ND	0.00600	mg/kg	
Walk Hydell	SW8240	S	.	1.277	ND	0.00700	mg/kg	
Woodward Clyde	SW8240	S	.	0.587	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.059	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	1.151	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.567	ND	1.00000	mg/kg	DU
Woodward Clyde	SW8240	S	.	0.264	ND	0.20000	mg/kg	DU
Woodward Clyde	SW8240	S	.	2.233	ND	4.00000	mg/kg	DUJ
Woodward Clyde	SW8240	S	.	1.044	ND	2.00000	mg/kg	DU
Woodward Clyde	SW8240	S	.	1.292	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	1.345	ND	0.00200	mg/kg	U

N = 39

----- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Trichloroethene -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00234	.0023400	DET	.00434	mg/kg	J
Holloman Table 2	SW8240	S	.	.0013361	ND	.00440	mg/kg	
Holloman Table 2	SW8240	S	.	.0005897	ND	.00428	mg/kg	
Holloman Table 2	SW8240	S	.00275	.0027500	DET	.00422	mg/kg	J
Holloman Table 2	SW8240	S	.	.0005358	ND	.00420	mg/kg	
Holloman Table 2	SW8240	S	.00265	.0026500	DET	.00443	mg/kg	J
Holloman Table 2	SW8240	S	.	.0005625	ND	.00530	mg/kg	
Holloman Table 2	SW8240	S	.	.0014668	ND	.00509	mg/kg	
Holloman Table 2	SW8240	S	.	.0010861	ND	.00328	mg/kg	
Holloman Table 2	SW8240	S	.	.0006322	ND	.00538	mg/kg	
Holloman Table 2	SW8240	S	.	.0010431	ND	.00411	mg/kg	

----- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Trichloroethene -----
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0021199	ND	0.00401	mg/kg	
Holloman Table 2	SW8240	S	.	.0003443	ND	0.00535	mg/kg	
Holloman Table 2	SW8240	S	.	.0009388	ND	0.00385	mg/kg	
Holloman Table 2	SW8240	S	.	.0016500	ND	0.00361	mg/kg	
Holloman Table 2	SW8240	S	.	.0008238	ND	0.00397	mg/kg	
Holloman Table 2	SW8240	S	.	.0008013	ND	0.61900	mg/kg	
Holloman Table 2	SW8240	S	.	.0000314	ND	6.64000	mg/kg	
Holloman Table 2	SW8240	S	.	.0008965	ND	0.00352	mg/kg	
Holloman Table 2	SW8240	S	.	.0004322	ND	0.55500	mg/kg	
Holloman Table 2	SW8240	S	.	.0001871	ND	0.00414	mg/kg	
Holloman Table 2	SW8240	S	.	.0003269	ND	0.00442	mg/kg	
Walk Hydell	SW8240	S	.	.0001679	ND	0.00521	mg/kg	
Walk Hydell	SW8240	S	.	.0022733	ND	6.15800	mg/kg	&**
Walk Hydell	SW8240	S	.	.0002578	ND	6.21100	mg/kg	&**
Walk Hydell	SW8240	S	.	.0006513	ND	6.60500	mg/kg	&**
Walk Hydell	SW8240	S	.	.0021181	ND	0.00500	mg/kg	
Walk Hydell	SW8240	S	.	.0021205	ND	0.00700	mg/kg	
Walk Hydell	SW8240	S	.	.0004734	ND	0.00600	mg/kg	
Walk Hydell	SW8240	S	.	.0003193	ND	0.00700	mg/kg	

N = 30

----- SWMUs Group=54/55/21/22/123 Method=Organics Analyte=Xylene (total) ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.001	ND	0.0061	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.0062	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.0060	mg/kg	
Holloman Table 2	SW8240	S	0.001	0.001	DET	0.0059	mg/kg	J
Holloman Table 2	SW8240	S	.	0.000	ND	0.0059	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.0062	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0040	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.0038	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.0038	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0040	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0058	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0056	mg/kg	
Holloman Table 2	SW8240	S	.	0.001	ND	0.0040	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0045	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0042	mg/kg	
Holloman Table 2	SW8240	S	.	0.000	ND	0.0046	mg/kg	
Holloman Table 2	SW8240	S	14.600	14.600	DET	1.4900	mg/kg	B
Holloman Table 2	SW8240	S	363.000	363.000	DET	15.9000	mg/kg	B
Holloman Table 2	SW8240	S	.	0.001	ND	0.0041	mg/kg	

----- Sw... Group=54/55/21/22/123 Method=Organics Analyte=Xylene (total) ------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	66.000	66.0000	DET	1.33000	mg/kg	B
Holloman Table 2	SW8240	S	.	0.0007	ND	0.00581	mg/kg	
Holloman Table 2	SW8240	S	.	0.0007	ND	0.00620	mg/kg	
Walk Hydell	SW8240	S	.	0.0007	ND	0.00521	mg/kg	
Walk Hydell	SW8240	S	39.000	39.0000	DET	0.00500	mg/kg	&**
Walk Hydell	SW8240	S	.	0.0005	ND	6.21100	mg/kg	&**
Walk Hydell	SW8240	S	.	0.0005	ND	6.60500	mg/kg	&**
Walk Hydell	SW8240	S	0.015	0.0150	DET	0.00500	mg/kg	
Walk Hydell	SW8240	S	.	0.0007	ND	0.00700	mg/kg	
Walk Hydell	SW8240	S	.	0.0006	ND	0.00600	mg/kg	
Walk Hydell	SW8240	S	.	0.0005	ND	0.00700	mg/kg	
Woodward Clyde	SW8240	S	.	0.0004	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.0003	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.0002	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.0001	ND	1.00000	mg/kg	DU
Woodward Clyde	SW8240	S	.	0.0007	ND	0.20000	mg/kg	DU
Woodward Clyde	SW8240	S	15.000	15.0000	DET	4.00000	mg/kg	DJ
Woodward Clyde	SW8240	S	6.300	6.3000	DET	2.00000	mg/kg	DJ
Woodward Clyde	SW8240	S	.	0.0004	ND	0.00200	mg/kg	U
Woodward Clyde	SW8240	S	.	0.0004	ND	0.00200	mg/kg	U

N = 39

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.420	1.420	DET	0.281	mg/kg	
Holloman Table 2	SW7060	S	2.150	2.150	DET	0.317	mg/kg	
Holloman Table 2	SW7060	S	2.100	2.100	DET	0.278	mg/kg	S
Holloman Table 2	SW7060	S	0.467	0.467	DET	0.305	mg/kg	S
Holloman Table 2	SW7060	S	1.980	1.980	DET	0.290	mg/kg	S
Holloman Table 2	SW7060	S	0.264	0.264	DET	0.269	mg/kg	SJ
Holloman Table 2	SW7060	S	2.760	2.760	DET	0.309	mg/kg	
Holloman Table 2	SW7060	S	1.060	1.060	DET	0.290	mg/kg	

N = 8

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	56.0	56.0	DET	0.0652	mg/kg	
Holloman Table 2	SW6010	S	48.2	48.2	DET	0.0526	mg/kg	
Holloman Table 2	SW6010	S	82.2	82.2	DET	0.0576	mg/kg	
Holloman Table 2	SW6010	S	16.2	16.2	DET	0.0708	mg/kg	
Holloman Table 2	SW6010	S	75.9	75.9	DET	0.0523	mg/kg	
Holloman Table 2	SW6010	S	27.1	27.1	DET	0.0505	mg/kg	
Holloman Table 2	SW6010	S	48.9	48.9	DET	0.0499	mg/kg	B
Holloman Table 2	SW6010	S	27.1	27.1	DET	0.0523	mg/kg	B

N = 8

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.2020	-0.2020	DET	0.323	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0373	0.0373	DET	0.261	mg/kg	J
Holloman Table 2	SW6010	S	0.1320	0.1320	DET	0.285	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1480	0.1480	DET	0.351	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0570	0.0570	DET	0.259	mg/kg	BJ
Holloman Table 2	SW6010	S	0.0227	0.0227	DET	0.250	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1230	0.1230	DET	0.247	mg/kg	BJ
Holloman Table 2	SW6010	S	0.3200	0.3200	DET	0.259	mg/kg	B

N = 8

--------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	7.04	7.04	DET	0.307	mg/kg	B
Holloman Table 2	SW6010	S	3.14	3.14	DET	0.248	mg/kg	
Holloman Table 2	SW6010	S	7.87	7.87	DET	0.271	mg/kg	B
Holloman Table 2	SW6010	S	2.52	2.52	DET	0.334	mg/kg	B
Holloman Table 2	SW6010	S	8.87	8.87	DET	0.247	mg/kg	B
Holloman Table 2	SW6010	S	3.51	3.51	DET	0.238	mg/kg	B
Holloman Table 2	SW6010	S	8.38	8.38	DET	0.235	mg/kg	B
Holloman Table 2	SW6010	S	6.04	6.04	DET	0.247	mg/kg	B

N = 8

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	4.620	4.620	DET	0.1960	mg/kg	SB
Holloman Table 2	SW7421	S	1.700	1.700	DET	0.2180	mg/kg	S
Holloman Table 2	SW7421	S	4.590	4.590	DET	0.1940	mg/kg	S
Holloman Table 2	SW7421	S	0.114	0.114	DET	0.1060	mg/kg	S
Holloman Table 2	SW7421	S	4.830	4.830	DET	0.2020	mg/kg	S
Holloman Table 2	SW7421	S	1.070	1.070	DET	0.0935	mg/kg	S
Holloman Table 2	SW7421	S	3.290	3.290	DET	0.1560	mg/kg	S
Holloman Table 2	SW7421	S	3.740	3.740	DET	0.1470	mg/kg	S

N = 8

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.00676	0.00676	DET	0.0162	mg/kg	J
Holloman Table 2	SW7471	S	-0.01430	-0.01430	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	-0.01300	-0.01300	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.00725	-0.00725	DET	0.0174	mg/kg	J
Holloman Table 2	SW7471	S	0.02590	0.02590	DET	0.0138	mg/kg	
Holloman Table 2	SW7471	S	0.00658	0.00658	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.04930	-0.04930	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.02600	-0.02600	DET	0.0156	mg/kg	J

N = 8

-------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	3.700	3.700	DET	0.251	mg/kg	S
Holloman Table 2	SW7740	S	2.270	2.270	DET	0.256	mg/kg	SB
Holloman Table 2	SW7740	S	0.598	0.598	DET	0.248	mg/kg	S
Holloman Table 2	SW7740	S	4.570	4.570	DET	0.272	mg/kg	S
Holloman Table 2	SW7740	S	1.430	1.430	DET	0.259	mg/kg	S
Holloman Table 2	SW7740	S	3.770	3.770	DET	0.240	mg/kg	S
Holloman Table 2	SW7740	S	3.670	3.670	DET	0.276	mg/kg	8
Holloman Table 2	SW7740	S	3.580	3.580	DET	0.259	mg/kg	B

N = 8

---------- SWMUs Group=040/128/138 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.536	-0.536	DET	0.206	mg/kg	8J
Holloman Table 2	SW6010	S	-0.562	-0.562	DET	0.166	mg/kg	J
Holloman Table 2	SW6010	S	-0.619	-0.619	DET	0.182	mg/kg	J
Holloman Table 2	SW6010	S	-0.530	-0.530	DET	0.224	mg/kg	J
Holloman Table 2	SW6010	S	-0.470	-0.470	DET	0.165	mg/kg	J
Holloman Table 2	SW6010	S	-0.291	-0.291	DET	0.160	mg/kg	J
Holloman Table 2	SW6010	S	0.298	0.298	DET	0.158	mg/kg	8
Holloman Table 2	SW6010	S	-0.424	-0.424	DET	0.165	mg/kg	BJ

N = 8

---------- SWMUs Group=040/128/138 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.05870	0.05870	DET	0.00173	mg/kg	B
Holloman Table 2	SW8240	S	0.01590	0.01590	DET	0.00180	mg/kg	B
Holloman Table 2	SW8240	S	0.01890	0.01890	DET	0.00164	mg/kg	8
Holloman Table 2	SW8240	S	0.37500	0.37500	DET	0.04290	mg/kg	8
Holloman Table 2	SW8240	S	0.00731	0.00731	DET	0.01690	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01570	0.01570	DET	0.00164	mg/kg	8
Holloman Table 2	SW8240	S	0.33200	0.33200	DET	0.09330	mg/kg	
Holloman Table 2	SW8240	S	0.98300	0.98300	DET	0.08770	mg/kg	B

N = 8

-------- SWMUs Group=040/128/138 Method=Organics Analyte=Chloromethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0033613	ND	.00281	mg/kg	
Holloman Table 2	SW8240	S	.	.0061748	ND	.00292	mg/kg	
Holloman Table 2	SW8240	S	.00851	.0085100	DET	.00266	mg/kg	B
Holloman Table 2	SW8240	S	.	.0010398	ND	.00789	mg/kg	
Holloman Table 2	SW8240	S	.	.0062782	ND	.00617	mg/kg	
Holloman Table 2	SW8240	S	.	.0043455	ND	.00266	mg/kg	
Holloman Table 2	SW8240	S	.	.0038913	ND	.00705	mg/kg	
Holloman Table 2	SW8240	S	.	.0013339	ND	.00693	mg/kg	

N = 8

-------- SWMUs Group=040/128/138 Method=Organics Analyte=Hydrocarbons ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-1.87	-1.87	DET	33.8	mg/kg	J
Holloman Table 2	E418.1	S	1.81	1.81	DET	35.7	mg/kg	J
Holloman Table 2	E418.1	S	-5.28	-5.28	DET	32.6	mg/kg	J
Holloman Table 2	E418.1	S	-2.08	-2.08	DET	36.4	mg/kg	J
Holloman Table 2	E418.1	S	1.38	1.38	DET	28.7	mg/kg	J
Holloman Table 2	E418.1	S	-12.20	-12.20	DET	32.7	mg/kg	J
Holloman Table 2	E418.1	S	2.34	2.34	DET	32.8	mg/kg	BJ
Holloman Table 2	E418.1	S	15.80	15.80	DET	32.3	mg/kg	BJ

N = 8

----- SWMUs Group=040/128/138 Method=Organics Analyte=Methyl ethyl ketone -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0149	0.014900	DET	0.00176	mg/kg	B
Holloman Table 2	SW8240	S	0.0131	0.013100	DET	0.00183	mg/kg	B
Holloman Table 2	SW8240	S	0.0112	0.011200	DET	0.00167	mg/kg	B
Holloman Table 2	SW8240	S	.	0.004298	ND	0.01040	mg/kg	
Holloman Table 2	SW8240	S	.	0.001904	ND	0.00811	mg/kg	
Holloman Table 2	SW8240	S	0.0107	0.010700	DET	0.00167	mg/kg	B
Holloman Table 2	SW8240	S	.	0.003755	ND	0.00926	mg/kg	
Holloman Table 2	SW8240	S	.	0.001216	ND	0.00911	mg/kg	

N = 8

----- SWMUs Group=040/128/138 Method=Organics Analyte=Methylene Chloride ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.002940	0.002940	DET	.00301	mg/kg	J
Holloman Table 2	SW8240	S	0.005910	0.005910	DET	.00313	mg/kg	
Holloman Table 2	SW8240	S	0.008380	0.008380	DET	.00285	mg/kg	
Holloman Table 2	SW8240	S	0.011900	0.011900	DET	.00306	mg/kg	
Holloman Table 2	SW8240	S	0.000843	0.000843	DET	.00239	mg/kg	BJ
Holloman Table 2	SW8240	S	0.022600	0.022600	DET	.00286	mg/kg	
Holloman Table 2	SW8240	S	.	0.000414	ND	.00273	mg/kg	
Holloman Table 2	SW8240	S	0.000897	0.000897	DET	.00269	mg/kg	BJ

N = 8

- SWMUs Group=040/128/138 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate --

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	23.5491	ND	65.0	ug/kg	
Holloman Table 2	SW8270	S	54.2	54.2000	DET	64.1	ug/kg	J

N = 2

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.760	1.760	DET	0.301	mg/kg	
Holloman Table 2	SW7060	S	1.530	1.530	DET	0.273	mg/kg	
Holloman Table 2	SW7060	S	0.493	0.493	DET	0.295	mg/kg	
Holloman Table 2	SW7060	S	-0.136	-0.136	DET	0.326	mg/kg	J
Holloman Table 2	SW7060	S	0.421	0.421	DET	0.308	mg/kg	
Holloman Table 2	SW7060	S	-0.242	-0.242	DET	0.299	mg/kg	J
Holloman Table 2	SW7060	S	2.750	2.750	DET	0.298	mg/kg	
Holloman Table 2	SW7060	S	4.630	4.630	DET	0.266	mg/kg	

N = 8

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	42.3	42.3	DET	0.0543	mg/kg	
Holloman Table 2	SW6010	S	40.4	40.4	DET	0.0554	mg/kg	
Holloman Table 2	SW6010	S	76.8	76.8	DET	0.0475	mg/kg	

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Barium ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	26.8	26.8	DET	0.0476	mg/kg	
Holloman Table 2	SW6010	S	125.0	125.0	DET	0.0501	mg/kg	
Holloman Table 2	SW6010	S	35.3	35.3	DET	0.0488	mg/kg	
Holloman Table 2	SW6010	S	57.0	57.0	DET	0.0587	mg/kg	
Holloman Table 2	SW6010	S	31.2	31.2	DET	0.0558	mg/kg	

N = 8

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.346	0.346	DET	0.269	mg/kg	
Holloman Table 2	SW6010	S	0.242	0.242	DET	0.274	mg/kg	J
Holloman Table 2	SW6010	S	0.375	0.375	DET	0.235	mg/kg	
Holloman Table 2	SW6010	S	0.257	0.257	DET	0.236	mg/kg	
Holloman Table 2	SW6010	S	0.511	0.511	DET	0.248	mg/kg	
Holloman Table 2	SW6010	S	0.270	0.270	DET	0.242	mg/kg	
Holloman Table 2	SW6010	S	0.266	0.266	DET	0.291	mg/kg	J
Holloman Table 2	SW6010	S	0.139	0.139	DET	0.276	mg/kg	J

N = 8

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	5.96	5.96	DET	0.256	mg/kg	
Holloman Table 2	SW6010	S	6.52	6.52	DET	0.261	mg/kg	
Holloman Table 2	SW6010	S	21.90	21.90	DET	0.224	mg/kg	
Holloman Table 2	SW6010	S	4.88	4.88	DET	0.224	mg/kg	
Holloman Table 2	SW6010	S	21.30	21.30	DET	0.236	mg/kg	
Holloman Table 2	SW6010	S	6.59	6.59	DET	0.230	mg/kg	
Holloman Table 2	SW6010	S	14.00	14.00	DET	0.277	mg/kg	
Holloman Table 2	SW6010	S	5.14	5.14	DET	0.263	mg/kg	

N = 8

-------- SWMUs Group=119/2 Method=Inorganics Analyte=Lead --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	0.607	0.607	DET	0.0868	mg/kg	S
Holloman Table 2	SW7421	S	0.240	0.240	DET	0.1100	mg/kg	S
Holloman Table 2	SW7421	S	1.070	1.070	DET	0.1650	mg/kg	S
Holloman Table 2	SW7421	S	0.235	0.235	DET	0.2160	mg/kg	S
Holloman Table 2	SW7421	S	1.530	1.530	DET	0.2130	mg/kg	SX
Holloman Table 2	SW7421	S	0.281	0.281	DET	0.2200	mg/kg	S
Holloman Table 2	SW7421	S	0.640	0.640	DET	0.2130	mg/kg	SX
Holloman Table 2	SW7421	S	0.200	0.200	DET	0.2000	mg/kg	S

N = 8

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.00000	0.00000	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	0.00000	0.00000	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	0.00949	0.00949	DET	0.0152	mg/kg	J
Holloman Table 2	SW7471	S	-0.01030	-0.01030	DET	0.0164	mg/kg	J
Holloman Table 2	SW7471	S	-0.01300	-0.01300	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	0.02630	0.02630	DET	0.0158	mg/kg	
Holloman Table 2	SW7471	S	0.00329	0.00329	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	0.00000	0.00000	DET	0.0160	mg/kg	J

N = 8

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.86	2.86	DET	0.269	mg/kg	SB
Holloman Table 2	SW7740	S	2.86	2.86	DET	0.244	mg/kg	SB
Holloman Table 2	SW7740	S	3.13	3.13	DET	0.264	mg/kg	SB
Holloman Table 2	SW7740	S	3.36	3.36	DET	0.291	mg/kg	SB
Holloman Table 2	SW7740	S	4.10	4.10	DET	0.275	mg/kg	SB
Holloman Table 2	SW7740	S	3.73	3.73	DET	0.267	mg/kg	SB
Holloman Table 2	SW7740	S	5.94	5.94	DET	0.266	mg/kg	SB
Holloman Table 2	SW7740	S	26.40	26.40	DET	0.238	mg/kg	SB

N = 8

---------- SWMUs Group=119/2 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.306	-0.306	DET	0.172	mg/kg	J
Holloman Table 2	SW6010	S	-0.490	-0.490	DET	0.175	mg/kg	J
Holloman Table 2	SW6010	S	-0.520	-0.520	DET	0.150	mg/kg	J
Holloman Table 2	SW6010	S	-0.452	-0.452	DET	0.150	mg/kg	J
Holloman Table 2	SW6010	S	-0.435	-0.435	DET	0.158	mg/kg	J
Holloman Table 2	SW6010	S	-0.156	-0.156	DET	0.154	mg/kg	J
Holloman Table 2	SW6010	S	-0.461	-0.461	DET	0.186	mg/kg	J
Holloman Table 2	SW6010	S	-0.401	-0.401	DET	0.176	mg/kg	J

N = 8

-------- SWMUs Group=119/2 Method=Organics Analyte=2-Methylnaphthalene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	424	424	DET	31.3	ug/kg	
Holloman Table 2	SW8270	S	503	503	DET	32.5	ug/kg	

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Acenaphthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	40.1	40.1	DET	31.2	ug/kg	
Holloman Table 2	SW8270	S	20.2	20.2	DET	32.4	ug/kg	J

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.2600	0.2600	DET	.00329	mg/kg	B
Holloman Table 2	SW8240	S	0.5780	0.5780	DET	.00794	mg/kg	B
Holloman Table 2	SW8240	S	0.0144	0.0144	DET	.00161	mg/kg	B
Holloman Table 2	SW8240	S	0.0172	0.0172	DET	.00175	mg/kg	B
Holloman Table 2	SW8240	S	0.0346	0.0346	DET	.00165	mg/kg	B
Holloman Table 2	SW8240	S	0.0352	0.0352	DET	.00169	mg/kg	B
Holloman Table 2	SW8240	S	0.0125	0.0125	DET	.00166	mg/kg	B
Holloman Table 2	SW8240	S	0.0177	0.0177	DET	.00170	mg/kg	B

N = 8

------- SWMUs Group=119/2 Method=Organics Analyte=Butylbenzylphthalate --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	179	179	DET	76.0	ug/kg	
Holloman Table 2	SW8270	S	66	66	DET	78.9	ug/kg	J

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Dibenzofuran ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	90.1	90.1	DET	23.9	ug/kg	
Holloman Table 2	SW8270	S	35.0	35.0	DET	24.8	ug/kg	

N = 2

--------- SWMUs Group=119/2 Method=Organics Analyte=Dibutylphthalate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	184.0	184.0	DET	25.0	ug/kg	B
Holloman Table 2	SW8270	S	63.3	63.3	DET	25.9	ug/kg	B

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00455	0.004550	DET	.00362	mg/kg	
Holloman Table 2	SW8240	S	0.01260	0.012600	DET	.00876	mg/kg	
Holloman Table 2	SW8240	S	.	0.004021	ND	.00178	mg/kg	
Holloman Table 2	SW8240	S	.	0.004437	ND	.00193	mg/kg	
Holloman Table 2	SW8240	S	.	0.000448	ND	.00182	mg/kg	
Holloman Table 2	SW8240	S	.	0.002755	ND	.00186	mg/kg	
Holloman Table 2	SW8240	S	.	0.000879	ND	.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.002071	ND	.00187	mg/kg	

N = 8

---------- SWMUs Group=119/2 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	11.8	11.8000	DET	26.9	ug/kg	J
Holloman Table 2	SW8270	S	.	5.8550	ND	27.9	ug/kg	

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Fluorene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	82.4	82.4000	DET	22.3	ug/kg	
Holloman Table 2	SW8270	S	.	68.1535	ND	23.2	ug/kg	

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-5.14	-5.14	DET	31.8	mg/kg	J
Holloman Table 2	E418.1	S	-12.80	-12.80	DET	34.3	mg/kg	J
Holloman Table 2	E418.1	S	-12.20	-12.20	DET	32.6	mg/kg	J
Holloman Table 2	E418.1	S	-12.40	-12.40	DET	33.1	mg/kg	J
Holloman Table 2	E418.1	S	-1.82	-1.82	DET	32.7	mg/kg	J
Holloman Table 2	E418.1	S	-8.98	-8.98	DET	33.5	mg/kg	J

N = 6

-------- SWMUs Group=119/2 Method=Organics Analyte=Methyl ethyl ketone --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.04660	0.04660	DET	.00334	mg/kg	B
Holloman Table 2	SW8240	S	0.03810	0.03810	DET	.00807	mg/kg	B
Holloman Table 2	SW8240	S	0.00676	0.00676	DET	.00164	mg/kg	B
Holloman Table 2	SW8240	S	0.00884	0.00884	DET	.00178	mg/kg	B
Holloman Table 2	SW8240	S	0.00728	0.00728	DET	.00168	mg/kg	B
Holloman Table 2	SW8240	S	0.00736	0.00736	DET	.00171	mg/kg	B
Holloman Table 2	SW8240	S	0.01280	0.01280	DET	.00169	mg/kg	B
Holloman Table 2	SW8240	S	0.01240	0.01240	DET	.00173	mg/kg	B

N = 8

-------- SWMUs Group=119/2 Method=Organics Analyte=Methylene Chloride ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00321	.0032100	DET	0.00572	mg/kg	J
Holloman Table 2	SW8240	S	.	.0006347	ND	0.01380	mg/kg	
Holloman Table 2	SW8240	S	.00522	.0052200	DET	0.00281	mg/kg	
Holloman Table 2	SW8240	S	.00351	.0035100	DET	0.00304	mg/kg	
Holloman Table 2	SW8240	S	.00521	.0052100	DET	0.00288	mg/kg	
Holloman Table 2	SW8240	S	.00469	.0046900	DET	0.00294	mg/kg	
Holloman Table 2	SW8240	S	.00220	.0022000	DET	0.00289	mg/kg	J
Holloman Table 2	SW8240	S	.00386	.0038600	DET	0.00296	mg/kg	

N = 8

---------- SWMUs Group=119/2 Method=Organics Analyte=Naphthalene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	28.5	28.5	DET	27.2	ug/kg	
Holloman Table 2	SW8270	S	47.2	47.2	DET	28.3	ug/kg	

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	162.0	162.0	DET	34.9	ug/kg	
Holloman Table 2	SW8270	S	61.9	61.9	DET	36.3	ug/kg	

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	15.1	15.1000	DET	19.1	ug/kg	J
Holloman Table 2	SW8270	S	.	0.5138	ND	19.9	ug/kg	

N = 2

---------- SWMUs Group=119/2 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00352	0.003520	DET	.00373	mg/kg	J
Holloman Table 2	SW8240	S	0.03060	0.030600	DET	.00901	mg/kg	
Holloman Table 2	SW8240	S	.	0.002903	ND	.00183	mg/kg	
Holloman Table 2	SW8240	S	.	0.002031	ND	.00198	mg/kg	
Holloman Table 2	SW8240	S	.	0.001645	ND	.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.003197	ND	.00191	mg/kg	
Holloman Table 2	SW8240	S	.	0.000401	ND	.00188	mg/kg	
Holloman Table 2	SW8240	S	.	0.001314	ND	.00193	mg/kg	

N = 8

---------- SWMUs Group=119/2 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00683	0.006830	DET	0.00797	mg/kg	J
Holloman Table 2	SW8240	S	0.04560	0.045600	DET	0.01930	mg/kg	
Holloman Table 2	SW8240	S	.	0.004991	ND	0.00391	mg/kg	
Holloman Table 2	SW8240	S	.	0.001555	ND	0.00424	mg/kg	
Holloman Table 2	SW8240	S	.	0.003411	ND	0.00401	mg/kg	
Holloman Table 2	SW8240	S	.	0.001536	ND	0.00409	mg/kg	
Holloman Table 2	SW8240	S	.	0.000429	ND	0.00403	mg/kg	
Holloman Table 2	SW8240	S	.	0.004645	ND	0.00412	mg/kg	

N = 8

---- SWMUs Group=119/2 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate -----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	857	857	DET	64.0	ug/kg	B
Holloman Table 2	SW8270	S	332	332	DET	66.4	ug/kg	B

N = 2

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.64	1.64	DET	0.285	mg/kg	S
Holloman Table 2	SW7060	S	1.48	1.48	DET	0.723	mg/kg	S
Holloman Table 2	SW7060	S	3.65	3.65	DET	0.706	mg/kg	

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Arsenic ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.97	0.97	DET	0.281	mg/kg	S

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	51.8	51.8	DET	0.0604	mg/kg	
Holloman Table 2	SW6010	S	42.1	42.1	DET	0.0468	mg/kg	
Holloman Table 2	SW6010	S	69.3	69.3	DET	0.0388	mg/kg	
Holloman Table 2	SW6010	S	45.3	45.3	DET	0.0417	mg/kg	

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.0156	-0.0156	DET	0.299	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1070	0.1070	DET	0.232	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1030	0.1030	DET	0.192	mg/kg	J
Holloman Table 2	SW6010	S	0.0223	0.0223	DET	0.207	mg/kg	BJ

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	7.51	7.51	DET	0.285	mg/kg	B
Holloman Table 2	SW6010	S	5.56	5.56	DET	0.221	mg/kg	B
Holloman Table 2	SW6010	S	9.08	9.08	DET	0.183	mg/kg	B
Holloman Table 2	SW6010	S	6.97	6.97	DET	0.197	mg/kg	B

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	5.12	5.12	DET	0.0723	mg/kg	SB
Holloman Table 2	SW7421	S	2.11	2.11	DET	0.0736	mg/kg	SB
Holloman Table 2	SW7421	S	7.37	7.37	DET	0.1430	mg/kg	SB
Holloman Table 2	SW7421	S	2.81	2.81	DET	0.0981	mg/kg	SB

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.01220	-0.01220	DET	0.0146	mg/kg	J
Holloman Table 2	SW7471	S	-0.00987	-0.00987	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.00287	-0.00287	DET	0.0138	mg/kg	J
Holloman Table 2	SW7471	S	-0.01580	-0.01580	DET	0.0152	mg/kg	J

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.51	2.51	DET	0.255	mg/kg	SB
Holloman Table 2	SW7740	S	2.95	2.95	DET	0.258	mg/kg	SB
Holloman Table 2	SW7740	S	1.59	1.59	DET	0.252	mg/kg	SB
Holloman Table 2	SW7740	S	1.38	1.38	DET	0.251	mg/kg	SB

N = 4

---------- SWMUs Group=120/15 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.59600	-0.59600	DET	0.191	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.00808	-0.00808	DET	0.148	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.25400	-0.25400	DET	0.123	mg/kg	J
Holloman Table 2	SW6010	S	-0.17900	-0.17900	DET	0.132	mg/kg	BJ

N = 4

---------- SWMUs Group=120/15 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.01960	0.01960	DET	0.0296	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01200	0.01200	DET	0.0317	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01670	0.01670	DET	0.0279	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00704	0.00704	DET	0.0308	mg/kg	BJ

N = 4

---------- SWMUs Group=120/15 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	36.00	36.00	DET	30.5	mg/kg	B
Holloman Table 2	E418.1	S	31.60	31.60	DET	32.7	mg/kg	BJ
Holloman Table 2	E418.1	S	31.70	31.70	DET	28.8	mg/kg	
Holloman Table 2	E418.1	S	1.51	1.51	DET	31.5	mg/kg	J

N = 4

-------- SWMUs Group=120/15 Method=Organics Analyte=Methylene Chloride --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00371	.0037100	DET	.00166	mg/kg	
Holloman Table 2	SW8240	S	.	.0010059	ND	.00178	mg/kg	
Holloman Table 2	SW8240	S	.00350	.0035000	DET	.00157	mg/kg	
Holloman Table 2	SW8240	S	.	.0018295	ND	.00173	mg/kg	

N = 4

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.950	0.950	DET	0.227	mg/kg	S
Holloman Table 2	SW7060	S	0.500	0.500	DET	0.316	mg/kg	S
Holloman Table 2	SW7060	S	0.770	0.770	DET	0.317	mg/kg	S
Holloman Table 2	SW7060	S	0.109	0.109	DET	0.279	mg/kg	SJ
Holloman Table 2	SW7060	S	1.970	1.970	DET	0.326	mg/kg	S
Holloman Table 2	SW7060	S	1.280	1.280	DET	0.292	mg/kg	S

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	57.4	57.4	DET	0.0528	mg/kg	
Holloman Table 2	SW6010	S	38.2	38.2	DET	0.0536	mg/kg	
Holloman Table 2	SW6010	S	123.0	123.0	DET	0.0454	mg/kg	
Holloman Table 2	SW6010	S	28.0	28.0	DET	0.0475	mg/kg	
Holloman Table 2	SW6010	S	27.8	27.8	DET	0.0536	mg/kg	
Holloman Table 2	SW6010	S	29.9	29.9	DET	0.0515	mg/kg	

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.04650	-0.04650	DET	0.262	mg/kg	BJ
Holloman Table 2	SW6010	S	0.09350	0.09350	DET	0.266	mg/kg	BJ
Holloman Table 2	SW6010	S	0.01020	0.01020	DET	0.225	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.05580	-0.05580	DET	0.236	mg/kg	BJ
Holloman Table 2	SW6010	S	0.06660	0.06660	DET	0.265	mg/kg	BJ
Holloman Table 2	SW6010	S	0.00712	0.00712	DET	0.255	mg/kg	BJ

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	4.79	4.79	DET	0.249	mg/kg	B
Holloman Table 2	SW6010	S	5.82	5.82	DET	0.253	mg/kg	B
Holloman Table 2	SW6010	S	5.52	5.52	DET	0.214	mg/kg	B
Holloman Table 2	SW6010	S	3.40	3.40	DET	0.224	mg/kg	B
Holloman Table 2	SW6010	S	5.70	5.70	DET	0.253	mg/kg	B
Holloman Table 2	SW6010	S	5.73	5.73	DET	0.243	mg/kg	B

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	1.15	1.15	DET	0.0571	mg/kg	SB
Holloman Table 2	SW7421	S	59.90	59.90	DET	2.1600	mg/kg	SB
Holloman Table 2	SW7421	S	54.30	54.30	DET	2.1600	mg/kg	SB

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Lead ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	2.28	2.28	DET	0.0705	mg/kg	SB
Holloman Table 2	SW7421	S	83.60	83.60	DET	2.4800	mg/kg	SB
Holloman Table 2	SW7421	S	1.77	1.77	DET	0.0736	mg/kg	SB

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.03080	-0.03080	DET	0.0164	mg/kg	J
Holloman Table 2	SW7471	S	-0.01030	-0.01030	DET	0.0164	mg/kg	J
Holloman Table 2	SW7471	S	-0.02400	-0.02400	DET	0.0164	mg/kg	J
Holloman Table 2	SW7471	S	-0.02500	-0.02500	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	-0.00357	-0.00357	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	-0.02430	-0.02430	DET	0.0167	mg/kg	J

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.92	2.92	DET	0.203	mg/kg	S
Holloman Table 2	SW7740	S	2.84	2.84	DET	0.282	mg/kg	S
Holloman Table 2	SW7740	S	2.36	2.36	DET	0.283	mg/kg	S
Holloman Table 2	SW7740	S	2.18	2.18	DET	0.249	mg/kg	SB
Holloman Table 2	SW7740	S	3.20	3.20	DET	0.292	mg/kg	SB
Holloman Table 2	SW7740	S	1.94	1.94	DET	0.261	mg/kg	SB

N = 6

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.396	-0.396	DET	0.167	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.134	-0.134	DET	0.169	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.456	-0.456	DET	0.144	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.176	-0.176	DET	0.150	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.280	-0.280	DET	0.169	mg/kg	BJ

---------- SWMUs Group=121/17 Method=Inorganics Analyte=Silver ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.733	-0.733	DET	0.163	mg/kg	BJ

N = 6

---------- SWMUs Group=121/17 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0449	0.0449	DET	0.0334	mg/kg	B
Holloman Table 2	SW8240	S	0.2320	0.2320	DET	0.0331	mg/kg	B
Holloman Table 2	SW8240	S	0.0317	0.0317	DET	0.0336	mg/kg	BJ
Holloman Table 2	SW8240	S	0.0232	0.0232	DET	0.0349	mg/kg	BJ
Holloman Table 2	SW8240	S	0.3920	0.3920	DET	0.1840	mg/kg	B
Holloman Table 2	SW8240	S	0.1190	0.1190	DET	0.0338	mg/kg	B

N = 6

--------- SWMUs Group=121/17 Method=Organics Analyte=Carbon disulfide ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0016042	ND	0.00546	mg/kg	
Holloman Table 2	SW8240	S	.	.0022570	ND	0.00541	mg/kg	
Holloman Table 2	SW8240	S	.	.0028531	ND	0.00549	mg/kg	
Holloman Table 2	SW8240	S	.	.0017939	ND	0.00571	mg/kg	
Holloman Table 2	SW8240	S	.	.0004770	ND	0.03010	mg/kg	
Holloman Table 2	SW8240	S	.00379	.0037900	DET	0.00553	mg/kg	J

N = 6

---------- SWMUs Group=121/17 Method=Drganics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-5.59	-5.59	DET	34.4	mg/kg	J
Holloman Table 2	E418.1	S	48.50	48.50	DET	34.2	mg/kg	
Holloman Table 2	E418.1	S	-5.58	-5.58	DET	34.3	mg/kg	J
Holloman Table 2	E418.1	S	-2.04	-2.04	DET	35.7	mg/kg	J
Holloman Table 2	E418.1	S	358.00	358.00	DET	35.6	mg/kg	
Holloman Table 2	E418.1	S	215.00	215.00	DET	34.9	mg/kg	

N = 6

------- Group=121/17 Method=Organics Analyte=Methyl ethyl ketone -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.001025	ND	0.00444	mg/kg	
Holloman Table 2	SW8240	S	0.00495	0.004950	DET	0.00440	mg/kg	
Holloman Table 2	SW8240	S	.	0.000934	ND	0.00446	mg/kg	
Holloman Table 2	SW8240	S	.	0.002705	ND	0.00464	mg/kg	
Holloman Table 2	SW8240	S	0.02770	0.027700	DET	0.02450	mg/kg	
Holloman Table 2	SW8240	S	.	0.002445	ND	0.00450	mg/kg	

N = 6

-------- SWMUs Group=121/17 Method=Organics Analyte=Methylene Chloride --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00317	0.003170	DET	0.00187	mg/kg	
Holloman Table 2	SW8240	S	0.01240	0.012400	DET	0.00186	mg/kg	
Holloman Table 2	SW8240	S	0.00216	0.002160	DET	0.00188	mg/kg	
Holloman Table 2	SW8240	S	0.00657	0.006570	DET	0.00196	mg/kg	
Holloman Table 2	SW8240	S	.	0.001557	ND	0.01030	mg/kg	
Holloman Table 2	SW8240	S	0.00504	0.005040	DET	0.00190	mg/kg	

N = 6

---- SWMUs Group=121/17 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	49.1859	ND	122	ug/kg	
Holloman Table 2	SW8270	S	.	61.7622	ND	123	ug/kg	
Holloman Table 2	SW8270	S	98.2	98.2000	DET	127	ug/kg	J
Holloman Table 2	SW8270	S	.	89.7990	ND	125	ug/kg	

N = 4

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	5.46	5.46	DET	0.331	mg/kg	
Holloman Table 2	SW7060	S	3.45	3.45	DET	0.325	mg/kg	
Holloman Table 2	SW7060	S	3.66	3.66	DET	0.359	mg/kg	
Holloman Table 2	SW7060	S	6.04	6.04	DET	0.342	mg/kg	
Holloman Table 2	SW7060	S	5.35	5.35	DET	0.256	mg/kg	

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Arsenic ---------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	3.16	3.16	DET	0.364	mg/kg	
Holloman Table 2	SW7060	S	7.18	7.18	DET	0.285	mg/kg	
Holloman Table 2	SW7060	S	5.18	5.18	DET	0.320	mg/kg	

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	42.8	42.8	DET	0.0554	mg/kg	B
Holloman Table 2	SW6010	S	19.8	19.8	DET	0.0528	mg/kg	B
Holloman Table 2	SW6010	S	67.9	67.9	DET	0.0531	mg/kg	B
Holloman Table 2	SW6010	S	40.8	40.8	DET	0.0534	mg/kg	B
Holloman Table 2	SW6010	S	23.4	23.4	DET	0.0468	mg/kg	B
Holloman Table 2	SW6010	S	56.8	56.8	DET	0.0535	mg/kg	B
Holloman Table 2	SW6010	S	41.6	41.6	DET	0.0426	mg/kg	B
Holloman Table 2	SW6010	S	34.3	34.3	DET	0.0473	mg/kg	B

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.869	0.869	DET	0.275	mg/kg	B
Holloman Table 2	SW6010	S	0.130	0.130	DET	0.262	mg/kg	BJ
Holloman Table 2	SW6010	S	0.259	0.259	DET	0.263	mg/kg	BJ
Holloman Table 2	SW6010	S	0.574	0.574	DET	0.265	mg/kg	B
Holloman Table 2	SW6010	S	0.416	0.416	DET	0.232	mg/kg	B
Holloman Table 2	SW6010	S	0.302	0.302	DET	0.265	mg/kg	B
Holloman Table 2	SW6010	S	0.521	0.521	DET	0.211	mg/kg	B
Holloman Table 2	SW6010	S	0.554	0.554	DET	0.234	mg/kg	B

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	8.18	8.18	DET	0.261	mg/kg	B

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Chromium ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	3.36	3.36	DET	0.249	mg/kg	B
Holloman Table 2	SW6010	S	8.48	8.48	DET	0.250	mg/kg	B
Holloman Table 2	SW6010	S	7.43	7.43	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	6.24	6.24	DET	0.221	mg/kg	B
Holloman Table 2	SW6010	S	6.95	6.95	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	9.12	9.12	DET	0.201	mg/kg	B
Holloman Table 2	SW6010	S	7.77	7.77	DET	0.223	mg/kg	B

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	11.70	11.70	DET	0.9740	mg/kg	S
Holloman Table 2	SW7421	S	1.95	1.95	DET	0.0957	mg/kg	SB
Holloman Table 2	SW7421	S	3.36	3.36	DET	0.2120	mg/kg	S
Holloman Table 2	SW7421	S	116.00	116.00	DET	4.0300	mg/kg	SB
Holloman Table 2	SW7421	S	4.38	4.38	DET	0.3020	mg/kg	SB
Holloman Table 2	SW7421	S	2.28	2.28	DET	0.1070	mg/kg	SB
Holloman Table 2	SW7421	S	61.40	61.40	DET	3.3600	mg/kg	SB
Holloman Table 2	SW7421	S	18.00	18.00	DET	0.3770	mg/kg	S

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.00325	-0.00325	DET	0.0156	mg/kg	J
Holloman Table 2	SW7471	S	-0.00658	-0.00658	DET	0.0158	mg/kg	J
Holloman Table 2	SW7471	S	-0.00342	-0.00342	DET	0.0164	mg/kg	J
Holloman Table 2	SW7471	S	-0.01540	-0.01540	DET	0.0148	mg/kg	J
Holloman Table 2	SW7471	S	-0.00818	-0.00818	DET	0.0131	mg/kg	J
Holloman Table 2	SW7471	S	-0.00347	-0.00347	DET	0.0167	mg/kg	J
Holloman Table 2	SW7471	S	0.00581	0.00581	DET	0.0140	mg/kg	J
Holloman Table 2	SW7471	S	-0.00305	-0.00305	DET	0.0146	mg/kg	J

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.610	1.610	DET	0.250	mg/kg	S
Holloman Table 2	SW7740	S	2.030	2.030	DET	0.246	mg/kg	S
Holloman Table 2	SW7740	S	1.990	1.990	DET	0.272	mg/kg	S
Holloman Table 2	SW7740	S	1.790	1.790	DET	0.259	mg/kg	S
Holloman Table 2	SW7740	S	1.490	1.490	DET	0.194	mg/kg	S
Holloman Table 2	SW7740	S	0.851	0.851	DET	0.275	mg/kg	S
Holloman Table 2	SW7740	S	2.060	2.060	DET	0.216	mg/kg	S
Holloman Table 2	SW7740	S	1.550	1.550	DET	0.242	mg/kg	S

N = 8

---------- SWMUs Group=125/32 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.964	-0.964	DET	0.175	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.140	-1.140	DET	0.167	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.030	-1.030	DET	0.168	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.120	-1.120	DET	0.169	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.455	-0.455	DET	0.148	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.200	-1.200	DET	0.169	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.865	-0.865	DET	0.135	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.835	-0.835	DET	0.150	mg/kg	BJ

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=2-Hexanone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00714	.0071400	DET	.00738	mg/kg	J
Holloman Table 2	SW8240	S	.	.0068596	ND	.00748	mg/kg	
Holloman Table 2	SW8240	S	.	.0058657	ND	.00774	mg/kg	
Holloman Table 2	SW8240	S	.	.0033320	ND	.00695	mg/kg	
Holloman Table 2	SW8240	S	.	.0001486	ND	.00622	mg/kg	
Holloman Table 2	SW8240	S	.	.0019811	ND	.00397	mg/kg	
Holloman Table 2	SW8240	S	.	.0057934	ND	.00662	mg/kg	
Holloman Table 2	SW8240	S	.	.0003067	ND	.00355	mg/kg	

N = 8

------- SWMUs Group=125/32 Method=Organics Analyte=2-Methylnaphthalene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	1.8490	ND	25.3	ug/kg	
Holloman Table 2	SW8270	S	.	12.3282	ND	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	11.5898	ND	26.6	ug/kg	
Holloman Table 2	SW8270	S	.	8.5893	ND	24.1	ug/kg	
Holloman Table 2	SW8270	S	.	12.9849	ND	21.2	ug/kg	
Holloman Table 2	SW8270	S	.	3.5432	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	16	16.0000	DET	22.6	ug/kg	J

N = 7

---- SWMUs Group=125/32 Method=Organics Analyte=4-Methyl-2-Pentanone(MIBK) ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00542	.0054200	DET	.00329	mg/kg	
Holloman Table 2	SW8240	S	.	.0051216	ND	.00333	mg/kg	
Holloman Table 2	SW8240	S	.	.0012848	ND	.00345	mg/kg	
Holloman Table 2	SW8240	S	.	.0039419	ND	.00310	mg/kg	
Holloman Table 2	SW8240	S	.	.0026434	ND	.00277	mg/kg	
Holloman Table 2	SW8240	S	.	.0012972	ND	.00221	mg/kg	
Holloman Table 2	SW8240	S	.	.0024746	ND	.00295	mg/kg	
Holloman Table 2	SW8240	S	.	.0014793	ND	.00198	mg/kg	

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.07590	0.07590	DET	0.0192	mg/kg	B
Holloman Table 2	SW8240	S	0.01150	0.01150	DET	0.0194	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01160	0.01160	DET	0.0201	mg/kg	BJ
Holloman Table 2	SW8240	S	0.07390	0.07390	DET	0.0180	mg/kg	B
Holloman Table 2	SW8240	S	0.01120	0.01120	DET	0.0161	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00976	0.00976	DET	0.0340	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01010	0.01010	DET	0.0172	mg/kg	BJ
Holloman Table 2	SW8240	S	0.00842	0.00842	DET	0.0305	mg/kg	BJ

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=Anthracene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	4.2935	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	.	0.7386	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	.	4.2981	ND	34.9	ug/kg	
Holloman Table 2	SW8270	S	12.5	12.5000	DET	31.7	ug/kg	J
Holloman Table 2	SW8270	S	10.2	10.2000	DET	27.8	ug/kg	J
Holloman Table 2	SW8270	S	.	9.4481	ND	35.5	ug/kg	
Holloman Table 2	SW8270	S	.	4.4189	ND	29.7	ug/kg	

N = 7

---------- SWMUs Group=125/32 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.00039003	ND	.00131	mg/kg	
Holloman Table 2	SW8240	S	.000972	.00097200	DET	.00133	mg/kg	J
Holloman Table 2	SW8240	S	.	.00095836	ND	.00137	mg/kg	
Holloman Table 2	SW8240	S	.	.00017585	ND	.00123	mg/kg	
Holloman Table 2	SW8240	S	.	.00052898	ND	.00110	mg/kg	
Holloman Table 2	SW8240	S	.	.00096683	ND	.00209	mg/kg	
Holloman Table 2	SW8240	S	.	.00017732	ND	.00117	mg/kg	
Holloman Table 2	SW8240	S	.	.00048673	ND	.00187	mg/kg	

N = 8

-------- SWMUs Group=125/32 Method=Organics Analyte=Benzo(a)anthracene --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	31.3785	ND	25.9	ug/kg	
Holloman Table 2	SW8270	S	.	14.5345	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	19.8154	ND	27.2	ug/kg	
Holloman Table 2	SW8270	S	36.9	36.9000	DET	24.7	ug/kg	
Holloman Table 2	SW8270	S	.	7.8691	ND	21.7	ug/kg	
Holloman Table 2	SW8270	S	.	25.1654	ND	27.6	ug/kg	
Holloman Table 2	SW8270	S	44.4	44.4000	DET	23.2	ug/kg	

N = 7

---------- SWMUs Group=125/32 Method=Organics Analyte=Benzo(a)pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	15.9406	ND	34.6	ug/kg	
Holloman Table 2	SW8270	S	.	29.8640	ND	35.3	ug/kg	
Holloman Table 2	SW8270	S	.	34.9471	ND	36.4	ug/kg	
Holloman Table 2	SW8270	S	55.2	55.2000	DET	33.0	ug/kg	
Holloman Table 2	SW8270	S	.	30.5752	ND	29.0	ug/kg	
Holloman Table 2	SW8270	S	.	49.0510	ND	37.0	ug/kg	
Holloman Table 2	SW8270	S	78.0	78.0000	DET	31.0	ug/kg	

N = 7

------- SWMUs Group=125/32 Method=Organics Analyte=Benzo(b)fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	8.171	ND	45.7	ug/kg	
Holloman Table 2	SW8270	S	.	70.984	ND	46.7	ug/kg	
Holloman Table 2	SW8270	S	.	43.179	ND	48.1	ug/kg	
Holloman Table 2	SW8270	S	117	117.000	DET	43.7	ug/kg	F
Holloman Table 2	SW8270	S	.	48.443	ND	38.3	ug/kg	
Holloman Table 2	SW8270	S	.	10.859	ND	48.8	ug/kg	
Holloman Table 2	SW8270	S	147	147.000	DET	40.9	ug/kg	F

N = 7

------- SWMUs Group=125/32 Method=Organics Analyte=Benzo(g,h,i)perylene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	30.5836	ND	49.2	ug/kg	
Holloman Table 2	SW8270	S	.	18.1954	ND	50.2	ug/kg	
Holloman Table 2	SW8270	S	.	6.4063	ND	51.7	ug/kg	
Holloman Table 2	SW8270	S	.	12.6850	ND	47.0	ug/kg	
Holloman Table 2	SW8270	S	.	3.7922	ND	41.2	ug/kg	
Holloman Table 2	SW8270	S	.	20.5686	ND	52.5	ug/kg	
Holloman Table 2	SW8270	S	31.7	31.7000	DET	44.0	ug/kg	J

N = 7

------- SWMUs Group=125/32 Method=Organics Analyte=Benzo(k)fluoranthene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	32.721	ND	47.9	ug/kg	
Holloman Table 2	SW8270	S	.	109.460	ND	48.9	ug/kg	
Holloman Table 2	SW8270	S	.	68.282	ND	50.3	ug/kg	
Holloman Table 2	SW8270	S	117	117.000	DET	45.7	ug/kg	F
Holloman Table 2	SW8270	S	.	48.047	ND	40.1	ug/kg	
Holloman Table 2	SW8270	S	.	99.163	ND	51.1	ug/kg	
Holloman Table 2	SW8270	S	147	147.000	DET	42.9	ug/kg	F

N = 7

--------- SWMUs Group=125/32 Method=Organics Analyte=Carbon disulfide ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0000300	ND	.00347	mg/kg	
Holloman Table 2	SW8240	S	.00366	.0036600	DET	.00352	mg/kg	
Holloman Table 2	SW8240	S	.	.0003053	ND	.00364	mg/kg	
Holloman Table 2	SW8240	S	.00119	.0011900	DET	.00327	mg/kg	J
Holloman Table 2	SW8240	S	.	.0003426	ND	.00292	mg/kg	
Holloman Table 2	SW8240	S	.	.0004508	ND	.00556	mg/kg	
Holloman Table 2	SW8240	S	.	.0002653	ND	.00311	mg/kg	
Holloman Table 2	SW8240	S	.	.0009037	ND	.00498	mg/kg	

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	24.9481	ND	43.1	ug/kg	
Holloman Table 2	SW8270	S	.	29.2933	ND	44.0	ug/kg	
Holloman Table 2	SW8270	S	.	19.6933	ND	45.3	ug/kg	
Holloman Table 2	SW8270	S	61.4	61.4000	DET	41.2	ug/kg	
Holloman Table 2	SW8270	S	.	10.5162	ND	36.2	ug/kg	
Holloman Table 2	SW8270	S	.	47.1148	ND	46.1	ug/kg	
Holloman Table 2	SW8270	S	51.7	51.7000	DET	38.6	ug/kg	

N = 7

--------- SWMUs Group=125/32 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000335	.00033500	DET	.00126	mg/kg	J
Holloman Table 2	SW8240	S	.	.00004708	ND	.00127	mg/kg	
Holloman Table 2	SW8240	S	.	.00021354	ND	.00132	mg/kg	
Holloman Table 2	SW8240	S	.	.00009588	ND	.00118	mg/kg	
Holloman Table 2	SW8240	S	.	.00029529	ND	.00106	mg/kg	
Holloman Table 2	SW8240	S	.	.00021183	ND	.00220	mg/kg	
Holloman Table 2	SW8240	S	.	.00016500	ND	.00113	mg/kg	
Holloman Table 2	SW8240	S	.	.00005188	ND	.00197	mg/kg	

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	8.1361	ND	25.7	ug/kg	
Holloman Table 2	SW8270	S	.	5.3535	ND	26.2	ug/kg	
Holloman Table 2	SW8270	S	.	11.1502	ND	27.0	ug/kg	
Holloman Table 2	SW8270	S	59.3	59.3000	DET	24.5	ug/kg	
Holloman Table 2	SW8270	S	12.8	12.8000	DET	21.5	ug/kg	J
Holloman Table 2	SW8270	S	.	12.5889	ND	27.4	ug/kg	
Holloman Table 2	SW8270	S	57.1	57.1000	DET	23.0	ug/kg	

N = 7

---------- SWMUs Group=125/32 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	554.0	554.0	DET	32.6	mg/kg	B
Holloman Table 2	E418.1	S	42.5	42.5	DET	33.1	mg/kg	B
Holloman Table 2	E418.1	S	11.0	11.0	DET	34.2	mg/kg	BJ
Holloman Table 2	E418.1	S	724.0	724.0	DET	30.9	mg/kg	B
Holloman Table 2	E418.1	S	198.0	198.0	DET	27.3	mg/kg	B
Holloman Table 2	E418.1	S	11.2	11.2	DET	34.6	mg/kg	BJ
Holloman Table 2	E418.1	S	410.0	410.0	DET	29.0	mg/kg	B
Holloman Table 2	E418.1	S	734.0	734.0	DET	30.6	mg/kg	B

N = 8

------ SWMUs Group=125/32 Method=Organics Analyte=Indeno(1,2,3-cd)pyrene ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	6.0068	ND	38.4	ug/kg	
Holloman Table 2	SW8270	S	.	4.9133	ND	39.2	ug/kg	
Holloman Table 2	SW8270	S	.	20.4742	ND	40.4	ug/kg	
Holloman Table 2	SW8270	S	.	4.7690	ND	36.7	ug/kg	
Holloman Table 2	SW8270	S	.	21.5943	ND	32.2	ug/kg	
Holloman Table 2	SW8270	S	.	5.1409	ND	41.1	ug/kg	
Holloman Table 2	SW8270	S	27	27.0000	DET	34.4	ug/kg	J

N = 7

------- SWMUs Group=125/32 Method=Organics Analyte=Methyl ethyl ketone --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0111	0.011100	DET	.00922	mg/kg	
Holloman Table 2	SW8240	S	.	0.001061	ND	.00934	mg/kg	
Holloman Table 2	SW8240	S	0.0023	0.002300	DET	.00967	mg/kg	J
Holloman Table 2	SW8240	S	0.0125	0.012500	DET	.00868	mg/kg	
Holloman Table 2	SW8240	S	.	0.001977	ND	.00776	mg/kg	
Holloman Table 2	SW8240	S	.	0.000698	ND	.00452	mg/kg	
Holloman Table 2	SW8240	S	.	0.000235	ND	.00827	mg/kg	
Holloman Table 2	SW8240	S	.	0.001475	ND	.00405	mg/kg	

N = 8

-------- SWMUs Group=125/32 Method=Organics Analyte=Methylene Chloride --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00475	.0047500	DET	.00272	mg/kg	B
Holloman Table 2	SW8240	S	.00889	.0088900	DET	.00276	mg/kg	B
Holloman Table 2	SW8240	S	.00640	.0064000	DET	.00285	mg/kg	B
Holloman Table 2	SW8240	S	.00221	.0022100	DET	.00256	mg/kg	BJ
Holloman Table 2	SW8240	S	.00209	.0020900	DET	.00229	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0008877	ND	.00191	mg/kg	
Holloman Table 2	SW8240	S	.00615	.0061500	DET	.00244	mg/kg	B
Holloman Table 2	SW8240	S	.	.0020742	ND	.00171	mg/kg	

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	3.0140	ND	28.7	ug/kg	
Holloman Table 2	SW8270	S	.	4.3591	ND	29.3	ug/kg	
Holloman Table 2	SW8270	S	.	5.2690	ND	30.2	ug/kg	
Holloman Table 2	SW8270	S	32.8	32.8000	DET	27.4	ug/kg	
Holloman Table 2	SW8270	S	14.3	14.3000	DET	24.1	ug/kg	J
Holloman Table 2	SW8270	S	.	4.5489	ND	30.7	ug/kg	
Holloman Table 2	SW8270	S	22.8	22.8000	DET	25.7	ug/kg	J

N = 7

---------- SWMUs Group=125/32 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	27.3094	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	12.3951	ND	31.4	ug/kg	
Holloman Table 2	SW8270	S	.	1.3789	ND	32.4	ug/kg	
Holloman Table 2	SW8270	S	94.8	94.8000	DET	29.4	ug/kg	
Holloman Table 2	SW8270	S	27.7	27.7000	DET	25.8	ug/kg	
Holloman Table 2	SW8270	S	.	21.4013	ND	32.9	ug/kg	
Holloman Table 2	SW8270	S	56.8	56.8000	DET	27.6	ug/kg	

N = 7

---------- SWMUs Group=125/32 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000399	.00039900	DET	.00259	mg/kg	J
Holloman Table 2	SW8240	S	.000766	.00076600	DET	.00262	mg/kg	J
Holloman Table 2	SW8240	S	.	.00016699	ND	.00272	mg/kg	
Holloman Table 2	SW8240	S	.	.00008463	ND	.00244	mg/kg	
Holloman Table 2	SW8240	S	.	.00028079	ND	.00218	mg/kg	
Holloman Table 2	SW8240	S	.	.00031455	ND	.00206	mg/kg	
Holloman Table 2	SW8240	S	.000958	.00095800	DET	.00232	mg/kg	J
Holloman Table 2	SW8240	S	.	.00011616	ND	.00184	mg/kg	

N = 8

--------- SWMUs Group=125/32 Method=Organics Analyte=Trichloroethene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.00017079	ND	.00415	mg/kg	
Holloman Table 2	SW8240	S	.	.00068875	ND	.00421	mg/kg	
Holloman Table 2	SW8240	S	.	.00001159	ND	.00436	mg/kg	
Holloman Table 2	SW8240	S	.	.00043431	ND	.00391	mg/kg	
Holloman Table 2	SW8240	S	.	.00024604	ND	.00350	mg/kg	
Holloman Table 2	SW8240	S	.	.00043347	ND	.00384	mg/kg	
Holloman Table 2	SW8240	S	.000844	.00084400	DET	.00373	mg/kg	J
Holloman Table 2	SW8240	S	.	.00081683	ND	.00344	mg/kg	

N = 8

---------- SWMUs Group=125/32 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000555	.00055500	DET	.00582	mg/kg	J
Holloman Table 2	SW8240	S	.	.00016059	ND	.00591	mg/kg	
Holloman Table 2	SW8240	S	.	.00012419	ND	.00611	mg/kg	
Holloman Table 2	SW8240	S	.	.00031201	ND	.00549	mg/kg	
Holloman Table 2	SW8240	S	.	.00053799	ND	.00491	mg/kg	
Holloman Table 2	SW8240	S	.	.00008250	ND	.00446	mg/kg	
Holloman Table 2	SW8240	S	.000625	.00062500	DET	.00523	mg/kg	J
Holloman Table 2	SW8240	S	.	.00007441	ND	.00400	mg/kg	

N = 8

---- SWMUs Group=125/32 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ----

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	284.0	284.000	DET	116.0	ug/kg	
Holloman Table 2	SW8270	S	.	11.431	ND	118.0	ug/kg	
Holloman Table 2	SW8270	S	.	22.547	ND	122.0	ug/kg	
Holloman Table 2	SW8270	S	86.1	86.100	DET	110.0	ug/kg	J
Holloman Table 2	SW8270	S	.	13.607	ND	96.9	ug/kg	
Holloman Table 2	SW8270	S	.	21.369	ND	123.0	ug/kg	
Holloman Table 2	SW8270	S	24.4	24.400	DET	103.0	ug/kg	J

N = 7

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.878	0.878	DET	0.284	mg/kg	S
Holloman Table 2	SW7060	S	0.924	0.924	DET	0.269	mg/kg	S
Holloman Table 2	SW7060	S	0.908	0.908	DET	0.298	mg/kg	S
Holloman Table 2	SW7060	S	1.020	1.020	DET	0.300	mg/kg	S
Holloman Table 2	SW7060	S	1.400	1.400	DET	0.297	mg/kg	S
Holloman Table 2	SW7060	S	0.339	0.339	DET	0.282	mg/kg	S
Holloman Table 2	SW7060	S	0.971	0.971	DET	0.673	mg/kg	S
Holloman Table 2	SW7060	S	0.869	0.869	DET	0.288	mg/kg	S
Holloman Table 2	SW7060	S	0.809	0.809	DET	0.241	mg/kg	S

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	33.7	33.7	DET	0.0492	mg/kg	
Holloman Table 2	SW6010	S	40.6	40.6	DET	0.0552	mg/kg	
Holloman Table 2	SW6010	S	27.2	27.2	DET	0.0558	mg/kg	
Holloman Table 2	SW6010	S	37.4	37.4	DET	0.0478	mg/kg	
Holloman Table 2	SW6010	S	32.1	32.1	DET	0.0644	mg/kg	
Holloman Table 2	SW6010	S	33.9	33.9	DET	0.0576	mg/kg	
Holloman Table 2	SW6010	S	37.9	37.9	DET	0.0581	mg/kg	
Holloman Table 2	SW6010	S	27.1	27.1	DET	0.0513	mg/kg	
Holloman Table 2	SW6010	S	35.5	35.5	DET	0.0550	mg/kg	

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.06120	0.06120	DET	0.244	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.00286	-0.00286	DET	0.274	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.00963	-0.00963	DET	0.276	mg/kg	BJ
Holloman Table 2	SW6010	S	0.19500	0.19500	DET	0.237	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.00445	-0.00445	DET	0.319	mg/kg	BJ
Holloman Table 2	SW6010	S	0.03190	0.03190	DET	0.286	mg/kg	BJ
Holloman Table 2	SW6010	S	0.20300	0.20300	DET	0.288	mg/kg	BJ
Holloman Table 2	SW6010	S	0.01680	0.01680	DET	0.254	mg/kg	BJ
Holloman Table 2	SW6010	S	0.13900	0.13900	DET	0.272	mg/kg	BJ

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	5.29	5.29	DET	0.232	mg/kg	B
Holloman Table 2	SW6010	S	6.89	6.89	DET	0.260	mg/kg	B
Holloman Table 2	SW6010	S	4.15	4.15	DET	0.263	mg/kg	B
Holloman Table 2	SW6010	S	7.12	7.12	DET	0.225	mg/kg	B
Holloman Table 2	SW6010	S	5.88	5.88	DET	0.304	mg/kg	B
Holloman Table 2	SW6010	S	6.75	6.75	DET	0.272	mg/kg	B
Holloman Table 2	SW6010	S	8.17	8.17	DET	0.274	mg/kg	B
Holloman Table 2	SW6010	S	4.70	4.70	DET	0.242	mg/kg	B
Holloman Table 2	SW6010	S	6.37	6.37	DET	0.259	mg/kg	B

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	2.35	2.35	DET	0.099	mg/kg	S
Holloman Table 2	SW7421	S	2.34	2.34	DET	0.188	mg/kg	S
Holloman Table 2	SW7421	S	2.08	2.08	DET	0.104	mg/kg	S
Holloman Table 2	SW7421	S	2.72	2.72	DET	0.209	mg/kg	S
Holloman Table 2	SW7421	S	13.60	13.60	DET	0.517	mg/kg	SB
Holloman Table 2	SW7421	S	1.90	1.90	DET	0.098	mg/kg	S
Holloman Table 2	SW7421	S	2.49	2.49	DET	0.187	mg/kg	S
Holloman Table 2	SW7421	S	4.74	4.74	DET	0.201	mg/kg	SB
Holloman Table 2	SW7421	S	3.36	3.36	DET	0.168	mg/kg	SB

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.00305	0.00305	DET	0.0146	mg/kg	J
Holloman Table 2	SW7471	S	0.01510	0.01510	DET	0.0145	mg/kg	
Holloman Table 2	SW7471	S	-0.00641	-0.00641	DET	0.0154	mg/kg	J
Holloman Table 2	SW7471	S	-0.00312	-0.00312	DET	0.0150	mg/kg	J
Holloman Table 2	SW7471	S	0.00667	0.00667	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.00298	-0.00298	DET	0.0143	mg/kg	J
Holloman Table 2	SW7471	S	0.01850	0.01850	DET	0.0148	mg/kg	
Holloman Table 2	SW7471	S	-0.01790	-0.01790	DET	0.0143	mg/kg	J
Holloman Table 2	SW7471	S	-0.00625	-0.00625	DET	0.0150	mg/kg	J

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.9300	2.9300	DET	0.254	mg/kg	S
Holloman Table 2	SW7740	S	2.7700	2.7700	DET	0.241	mg/kg	S
Holloman Table 2	SW7740	S	2.5600	2.5600	DET	0.266	mg/kg	S
Holloman Table 2	SW7740	S	0.9010	0.9010	DET	0.268	mg/kg	S
Holloman Table 2	SW7740	S	2.7900	2.7900	DET	0.266	mg/kg	S
Holloman Table 2	SW7740	S	3.0200	3.0200	DET	0.252	mg/kg	S
Holloman Table 2	SW7740	S	1.8500	1.8500	DET	0.240	mg/kg	S
Holloman Table 2	SW7740	S	0.0328	0.0328	DET	0.258	mg/kg	SJ
Holloman Table 2	SW7740	S	0.0204	0.0204	DET	0.225	mg/kg	SBJ

N = 9

---------- SWMUs Group=126/36 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.345	-0.345	DET	0.155	mg/kg	J
Holloman Table 2	SW6010	S	-0.384	-0.384	DET	0.175	mg/kg	J
Holloman Table 2	SW6010	S	-0.493	-0.493	DET	0.176	mg/kg	J
Holloman Table 2	SW6010	S	-0.377	-0.377	DET	0.151	mg/kg	J
Holloman Table 2	SW6010	S	-0.599	-0.599	DET	0.204	mg/kg	J
Holloman Table 2	SW6010	S	-0.289	-0.289	DET	0.182	mg/kg	J
Holloman Table 2	SW6010	S	0.157	0.157	DET	0.184	mg/kg	J
Holloman Table 2	SW6010	S	-0.161	-0.161	DET	0.162	mg/kg	J
Holloman Table 2	SW6010	S	-0.608	-0.608	DET	0.174	mg/kg	J

N = 9

---------- SWMUs Group=126/36 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.4790	0.4790	DET	0.00306	mg/kg	
Holloman Table 2	SW8240	S	0.0233	0.0233	DET	0.00152	mg/kg	B
Holloman Table 2	SW8240	S	0.0154	0.0154	DET	0.00163	mg/kg	B
Holloman Table 2	SW8240	S	0.4690	0.4690	DET	0.00316	mg/kg	
Holloman Table 2	SW8240	S	0.9650	0.9650	DET	0.09590	mg/kg	B
Holloman Table 2	SW8240	S	0.0177	0.0177	DET	0.00149	mg/kg	B
Holloman Table 2	SW8240	S	0.0273	0.0273	DET	0.00156	mg/kg	B
Holloman Table 2	SW8240	S	0.0136	0.0136	DET	0.00148	mg/kg	B
Holloman Table 2	SW8240	S	0.0331	0.0331	DET	0.00158	mg/kg	B

N = 9

---------- SWMUs Group=126/36 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	43.00	43.00	DET	30.4	mg/kg	
Holloman Table 2	E418.1	S	5030.00	5030.00	DET	150.0	mg/kg	
Holloman Table 2	E418.1	S	4.94	4.94	DET	32.3	mg/kg	J
Holloman Table 2	E418.1	S	-5.05	-5.05	DET	31.1	mg/kg	J
Holloman Table 2	E418.1	S	135.00	135.00	DET	33.4	mg/kg	
Holloman Table 2	E418.1	S	-7.92	-7.92	DET	29.6	mg/kg	J
Holloman Table 2	E418.1	S	-11.50	-11.50	DET	30.9	mg/kg	J
Holloman Table 2	E418.1	S	-7.93	-7.93	DET	29.7	mg/kg	J
Holloman Table 2	E418.1	S	-8.32	-8.32	DET	31.1	mg/kg	J

N = 9

------- SWMUs Group=126/36 Method=Organics Analyte=Methyl ethyl ketone --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00903	0.00903	DET	.00168	mg/kg	B
Holloman Table 2	SW8240	S	0.01030	0.01030	DET	.00155	mg/kg	B
Holloman Table 2	SW8240	S	0.01060	0.01060	DET	.00165	mg/kg	B
Holloman Table 2	SW8240	S	0.01210	0.01210	DET	.00159	mg/kg	B
Holloman Table 2	SW8240	S	0.00898	0.00898	DET	.00171	mg/kg	B
Holloman Table 2	SW8240	S	0.00858	0.00858	DET	.00152	mg/kg	B
Holloman Table 2	SW8240	S	0.00823	0.00823	DET	.00158	mg/kg	B
Holloman Table 2	SW8240	S	0.00689	0.00689	DET	.00150	mg/kg	B
Holloman Table 2	SW8240	S	0.00892	0.00892	DET	.00160	mg/kg	B

N = 9

-------- SWMUs Group=126/36 Method=Organics Analyte=Methylene Chloride --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00503	0.005030	DET	.00289	mg/kg	
Holloman Table 2	SW8240	S	0.00479	0.004790	DET	.00265	mg/kg	
Holloman Table 2	SW8240	S	0.01680	0.016800	DET	.00283	mg/kg	
Holloman Table 2	SW8240	S	0.00349	0.003490	DET	.00272	mg/kg	
Holloman Table 2	SW8240	S	0.00266	0.002660	DET	.00293	mg/kg	J
Holloman Table 2	SW8240	S	.	0.000015	ND	.00260	mg/kg	
Holloman Table 2	SW8240	S	.	0.000570	ND	.00271	mg/kg	
Holloman Table 2	SW8240	S	.	0.000446	ND	.00258	mg/kg	
Holloman Table 2	SW8240	S	.	0.001259	ND	.00275	mg/kg	

N = 9

---------- SWMUs Group=136 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.880	1.880	DET	0.657	mg/kg	S
Holloman Table 2	SW7060	S	3.480	3.480	DET	0.524	mg/kg	S
Holloman Table 2	SW7060	S	1.510	1.510	DET	0.325	mg/kg	S
Holloman Table 2	SW7060	S	0.686	0.686	DET	0.281	mg/kg	S

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	88.8	88.8	DET	0.0535	mg/kg	
Holloman Table 2	SW6010	S	96.6	96.6	DET	0.0549	mg/kg	
Holloman Table 2	SW6010	S	51.5	51.5	DET	0.0508	mg/kg	
Holloman Table 2	SW6010	S	35.0	35.0	DET	0.0508	mg/kg	

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.2020	0.2020	DET	0.265	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1760	0.1760	DET	0.272	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1480	0.1480	DET	0.252	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0158	-0.0158	DET	D.252	mg/kg	BJ

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	9.12	9.12	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	13.30	13.30	DET	0.259	mg/kg	B
Holloman Table 2	SW6010	S	5.23	5.23	DET	0.240	mg/kg	B
Holloman Table 2	SW6010	S	4.11	4.11	DET	0.240	mg/kg	B

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	3.99	3.99	DET	0.1830	mg/kg	SB
Holloman Table 2	SW7421	S	9.55	9.55	DET	0.2920	mg/kg	SB
Holloman Table 2	SW7421	S	2.53	2.53	DET	0.1120	mg/kg	SB
Holloman Table 2	SW7421	S	1.55	1.55	DET	0.0985	mg/kg	SB

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.00333	-0.00333	DET	0.0160	mg/kg	J
Holloman Table 2	SW7471	S	-0.02410	-0.02410	DET	0.0145	mg/kg	J
Holloman Table 2	SW7471	S	0.00000	0.00000	DET	0.0164	mg/kg	J
Holloman Table 2	SW7471	S	-0.01320	-0.01320	DET	0.0158	mg/kg	J

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	0.615	0.615	DET	0.235	mg/kg	S
Holloman Table 2	SW7740	S	0.838	0.838	DET	0.187	mg/kg	S
Holloman Table 2	SW7740	S	2.570	2.570	DET	0.290	mg/kg	S
Holloman Table 2	SW7740	S	2.410	2.410	DET	0.251	mg/kg	SB

N = 4

---------- SWMUs Group=136 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.809	-0.809	DET	0.169	mg/kg	J
Holloman Table 2	SW6010	S	-0.795	-0.795	DET	0.174	mg/kg	J
Holloman Table 2	SW6010	S	-0.339	-0.339	DET	0.161	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.262	-0.262	DET	0.161	mg/kg	BJ

N = 4

-------- SWMUs Group=136 Method=Organics Analyte=1,1,1-Trichloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	6.23	6.23000	DET	0.11200	mg/kg	
Holloman Table 2	SW8240	S	.	6.11631	ND	0.00306	mg/kg	
Holloman Table 2	SW8240	S	.	4.69423	ND	0.00287	mg/kg	

N = 3

--------- SWMUs Group=136 Method=Organics Analyte=1,1-Dichloroethane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0386	0.038600	DET	.00955	mg/kg	
Holloman Table 2	SW8240	S	.	0.006675	ND	.00237	mg/kg	
Holloman Table 2	SW8240	S	.	0.035485	ND	.00223	mg/kg	

N = 3

--------- SWMUs Group=136 Method=Organics Analyte=1,1-Dichloroethene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.456	0.45600	DET	0.01430	mg/kg	
Holloman Table 2	SW8240	S	.	0.18939	ND	0.00376	mg/kg	
Holloman Table 2	SW8240	S	.	0.17260	ND	0.00353	mg/kg	

N = 3

--------- SWMUs Group=136 Method=Organics Analyte=2-Methylnaphthalene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	48500	48500	DET	795	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Acenaphthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	2150	2150	DET	792	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	2.36000	2.36000	DET	0.3500	mg/kg	
Holloman Table 2	SW8240	S	0.00905	0.00905	DET	0.0337	mg/kg	BJ
Holloman Table 2	SW8240	S	0.02950	0.02950	DET	0.0317	mg/kg	BJ

N = 3

---------- SWMUs Group=136 Method=Organics Analyte=Anthracene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	1020	1020	DET	641	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00474	.0047400	DET	.00961	mg/kg	J
Holloman Table 2	SW8240	S	.	.0021551	ND	.00207	mg/kg	
Holloman Table 2	SW8240	S	.	.0006028	ND	.00195	mg/kg	

N = 3

---------- SWMUs Group=136 Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0209	0.020900	DET	0.01440	mg/kg	
Holloman Table 2	SW8240	S	.	0.014443	ND	0.00552	mg/kg	
Holloman Table 2	SW8240	S	.	0.014249	ND	0.00518	mg/kg	

N = 3

---------- SWMUs Group=136 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	296	296	DET	795	ug/kg	J

N = 1

-------- - SWMUs Group=136 Method=Organics Analyte=Dibenzofuran ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	5190	5190	DET	606	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	1.27	1.27000	DET	.00922	mg/kg	
Holloman Table 2	SW8240	S	.	1.16413	ND	.00218	mg/kg	
Holloman Table 2	SW8240	S	.	0.31672	ND	.00205	mg/kg	

N = 3

---------- SWMUs Group=136 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	413	413	DET	683	ug/kg	J

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Fluorene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	4440	4440	DET	567	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	9360.00	9360.00	DET	166.0	mg/kg	
Holloman Table 2	E418.1	S	4150.00	4150.00	DET	61.7	mg/kg	
Holloman Table 2	E418.1	S	23.40	23.40	DET	34.4	mg/kg	J
Holloman Table 2	E418.1	S	-5.31	-5.31	DET	32.7	mg/kg	J

N = 4

--------- SWMUs Group=136 Method=Organics Analyte=Methyl ethyl ketone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0859	0.085900	DET	.00849	mg/kg	
Holloman Table 2	SW8240	S	.	0.043518	ND	.00449	mg/kg	
Holloman Table 2	SW8240	S	.	0.021605	ND	.00422	mg/kg	

N = 3

--------- SWMUs Group=136 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.000739	ND	0.01450	mg/kg	
Holloman Table 2	SW8240	S	0.0106	0.010600	DET	0.00189	mg/kg	
Holloman Table 2	SW8240	S	0.0131	0.013100	DET	0.00178	mg/kg	

N = 3

---------- SWMUs Group=136 Method=Organics Analyte=Naphthalene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	4920	4920	DET	691	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	11800	11800	DET	887	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	1290	1290	DET	486	ug/kg	

N = 1

---------- SWMUs Group=136 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.7	0.70000	DET	.00948	mg/kg	
Holloman Table 2	SW8240	S	.	0.00013	ND	.00204	mg/kg	
Holloman Table 2	SW8240	S	.	0.08186	ND	.00192	mg/kg	

N = 3

---------- SWMUs Group=136 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	9.27	9.27000	DET	0.15700	mg/kg	
Holloman Table 2	SW8240	S	.	2.56897	ND	0.00443	mg/kg	
Holloman Table 2	SW8240	S	.	7.19448	ND	0.00416	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Antimony ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-10.8	-10.8	DET	1.75	mg/kg	BJ
Holloman Table 2	SW6010	S	-11.1	-11.1	DET	2.11	mg/kg	BJ
Holloman Table 2	SW6010	S	-11.3	-11.3	DET	1.55	mg/kg	BJ

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.090	1.090	DET	0.568	mg/kg	S
Holloman Table 2	SW7060	S	0.737	0.737	DET	0.685	mg/kg	S
Holloman Table 2	SW7060	S	2.990	2.990	DET	0.687	mg/kg	S

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	42.0	42.0	DET	0.0525	mg/kg	
Holloman Table 2	SW6010	S	57.2	57.2	DET	0.0634	mg/kg	
Holloman Table 2	SW6010	S	60.0	60.0	DET	0.0464	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Beryllium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.125	0.125	DET	0.0534	mg/kg	
Holloman Table 2	SW6010	S	0.193	0.193	DET	0.0645	mg/kg	
Holloman Table 2	SW6010	S	0.117	0.117	DET	0.0472	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.1680	-0.1680	DET	0.260	mg/kg	J
Holloman Table 2	SW6010	S	0.0964	0.0964	DET	0.314	mg/kg	J
Holloman Table 2	SW6010	S	-0.0601	-0.0601	DET	0.230	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	5.93	5.93	DET	0.248	mg/kg	B
Holloman Table 2	SW6010	S	8.48	8.48	DET	0.299	mg/kg	B
Holloman Table 2	SW6010	S	5.30	5.30	DET	0.219	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Cobalt ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	1.63	1.63	DET	0.474	mg/kg	B
Holloman Table 2	SW6010	S	2.08	2.08	DET	0.572	mg/kg	B
Holloman Table 2	SW6010	S	1.64	1.64	DET	0.418	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Copper ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	2.48	2.48	DET	0.224	mg/kg	B
Holloman Table 2	SW6010	S	5.93	5.93	DET	0.271	mg/kg	B
Holloman Table 2	SW6010	S	2.79	2.79	DET	0.198	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Cyanide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW9012	S	0.1120	0.1120	DET	0.339	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1020	0.1020	DET	0.365	mg/kg	BJ
Holloman Table 2	SW9012	S	0.0505	0.0505	DET	0.316	mg/kg	BJ

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	2.52	2.52	DET	0.412	mg/kg	B
Holloman Table 2	SW7421	S	8.13	8.13	DET	0.442	mg/kg	B
Holloman Table 2	SW7421	S	3.50	3.50	DET	0.404	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.0143	-0.0143	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	0.0357	0.0357	DET	0.0190	mg/kg	
Holloman Table 2	SW7471	S	0.0300	0.0300	DET	0.0160	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	1.82	1.82	DET	0.203	mg/kg	
Holloman Table 2	SW7740	S	2.23	2.23	DET	0.245	mg/kg	
Holloman Table 2	SW7740	S	2.28	2.28	DET	0.245	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.238	0.238	DET	0.166	mg/kg	B
Holloman Table 2	SW6010	S	3.420	3.420	DET	0.200	mg/kg	B
Holloman Table 2	SW6010	S	0.265	0.265	DET	0.147	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Sulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW9030	S	14.6	14.6	DET	35.6	mg/kg	J
Holloman Table 2	SW9030	S	80.1	80.1	DET	38.9	mg/kg	
Holloman Table 2	SW9030	S	-13.8	-13.8	DET	33.4	mg/kg	J

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Vanadium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	21.3	21.3	DET	0.390	mg/kg	
Holloman Table 2	SW6010	S	19.0	19.0	DET	0.471	mg/kg	
Holloman Table 2	SW6010	S	14.5	14.5	DET	0.345	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	10.90	10.90	DET	0.264	mg/kg	
Holloman Table 2	SW6010	S	31.40	31.40	DET	0.319	mg/kg	
Holloman Table 2	SW6010	S	8.96	8.96	DET	0.233	mg/kg	

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=1,1-Dichloroethene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.072233	ND	0.00308	mg/kg	
Holloman Table 2	SW8240	S	0.0898	0.089800	DET	0.08180	mg/kg	
Holloman Table 2	SW8240	S	.	0.066787	ND	0.00290	mg/kg	

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=1,4-Dichlorobenzene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	32.9414	ND	33.2	ug/kg	
Holloman Table 2	SW8270	S	94.8	94.8000	DET	107.0	ug/kg	J
Holloman Table 2	SW8270	S	.	44.5174	ND	31.4	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=2,4,5-T ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.00308	.00308	DET	0.01790	mg/kg	PJ
Holloman Table 2	SW8150	S	.00735	.00735	DET	0.00406	mg/kg	
Holloman Table 2	SW8150	S	.00271	.00271	DET	0.01690	mg/kg	PJ

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=2-Methylnaphthalene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	1964.87	ND	34.3	ug/kg	
Holloman Table 2	SW8270	S	11300	11300.00	DET	111.0	ug/kg	
Holloman Table 2	SW8270	S	.	11013.55	ND	32.4	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=4,4'-DDD ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	0.17825	ND	0.0228	mg/kg	
Holloman Table 2	SW8080	S	0.285	0.28500	DET	0.1260	mg/kg	
Holloman Table 2	SW8080	S	.	0.11320	ND	0.0214	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Acenaphthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	20.449	ND	34.2	ug/kg	
Holloman Table 2	SW8270	S	221	221.000	DET	111.0	ug/kg	
Holloman Table 2	SW8270	S	.	158.390	ND	32.3	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0612	0.061200	DET	0.00181	mg/kg	B
Holloman Table 2	SW8240	S	.	0.010499	ND	0.13100	mg/kg	
Holloman Table 2	SW8240	S	0.0285	0.028500	DET	0.00170	mg/kg	B

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Anthracene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	25.8485	ND	27.7	ug/kg	
Holloman Table 2	SW8270	S	53.7	53.7000	DET	89.4	ug/kg	J
Holloman Table 2	SW8270	S	.	37.3721	ND	26.2	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.000711	.0007110	DET	0.00208	mg/kg	J
Holloman Table 2	SW8240	S	.009340	.0093400	DET	0.11300	mg/kg	J
Holloman Table 2	SW8240	S	.	.0004140	ND	0.00195	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.020947	ND	0.00311	mg/kg	
Holloman Table 2	SW8240	S	0.053	0.053000	DET	0.10600	mg/kg	J
Holloman Table 2	SW8240	S	.	0.040837	ND	0.00293	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Chrysene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	6.6733	ND	34.3	ug/kg	
Holloman Table 2	SW8270	S	65.1	65.1000	DET	111.0	ug/kg	J
Holloman Table 2	SW8270	S	.	61.0403	ND	32.4	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Diazinon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0005449	ND	0.2770	mg/kg	
Holloman Table 2	SW8140	S	.	.0007818	ND	0.3070	mg/kg	
Holloman Table 2	SW8140	S	.00139	.0013900	DET	0.0263	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Dicamba ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.	.00078650	ND	.00273	mg/kg	
Holloman Table 2	SW8150	S	.000937	.00093700	DET	.00309	mg/kg	KJ
Holloman Table 2	SW8150	S	.	.00064834	ND	.00258	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Dichloroprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	0.0123	0.0123	DET	0.0488	mg/kg	PJ
Holloman Table 2	SW8150	S	0.0230	0.0230	DET	0.0552	mg/kg	PJ
Holloman Table 2	SW8150	S	0.0109	0.0109	DET	0.0460	mg/kg	PJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.55283	ND	0.00199	mg/kg	
Holloman Table 2	SW8240	S	0.878	0.87800	DET	0.07490	mg/kg	
Holloman Table 2	SW8240	S	.	0.58409	ND	0.00187	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Fluoranthene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	40.2032	ND	29.5	ug/kg	
Holloman Table 2	SW8270	S	66.3	66.3000	DET	95.4	ug/kg	J
Holloman Table 2	SW8270	S	.	15.1961	ND	27.9	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Fluorene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	987.72	ND	24.5	ug/kg	
Holloman Table 2	SW8270	S	1080	1080.00	DET	79.1	ug/kg	
Holloman Table 2	SW8270	S	.	708.05	ND	23.1	ug/kg	

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=Heptachlor epoxide ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.0045973	ND	0.00313	mg/kg	
Holloman Table 2	SW8080	S	.00611	.0061100	DET	0.01730	mg/kg	PJ
Holloman Table 2	SW8080	S	.	.0057581	ND	0.00294	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=MCPP ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.	4.63748	ND	2.51	mg/kg	
Holloman Table 2	SW8150	S	8.37	8.37000	DET	2.85	mg/kg	P
Holloman Table 2	SW8150	S	8.86	8.86000	DET	8.94	mg/kg	KJ

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=Methyl ethyl ketone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00792	.0079200	DET	0.00183	mg/kg	
Holloman Table 2	SW8240	S	.	.0011229	ND	0.12700	mg/kg	
Holloman Table 2	SW8240	S	.00431	.0043100	DET	0.00173	mg/kg	

N = 3

--------- SWMUs Group=155 Method=Organics Analyte=Methylene Chloride ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00542	.0054200	DET	0.00314	mg/kg	B
Holloman Table 2	SW8240	S	.	.0043341	ND	0.12600	mg/kg	
Holloman Table 2	SW8240	S	.	.0049951	ND	0.00296	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Naled ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00597	.0059700	DET	0.0122	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0048480	ND	0.3600	mg/kg	
Holloman Table 2	SW8140	S	.00778	.0077800	DET	0.0114	mg/kg	KJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Naphthalene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	401.96	ND	29.8	ug/kg	
Holloman Table 2	SW8270	S	1700	1700.00	DET	96.4	ug/kg	
Holloman Table 2	SW8270	S	.	201.64	ND	28.2	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	676.853	ND	38.3	ug/kg	
Holloman Table 2	SW8270	S	948	948.000	DET	124.0	ug/kg	
Holloman Table 2	SW8270	S	.	308.860	ND	36.2	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Pyrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	2.4363	ND	21.0	ug/kg	
Holloman Table 2	SW8270	S	77.3	77.3000	DET	67.8	ug/kg	
Holloman Table 2	SW8270	S	.	7.4229	ND	19.8	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Thallium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7841	S	0.1510	0.1510	DET	0.0835	mg/kg	SB
Holloman Table 2	SW7841	S	0.0953	0.0953	DET	0.1010	mg/kg	SBJ
Holloman Table 2	SW7841	S	0.0777	0.0777	DET	0.1000	mg/kg	SBJ

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Toluene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.044375	ND	0.00205	mg/kg	
Holloman Table 2	SW8240	S	0.0508	0.050800	DET	0.04700	mg/kg	
Holloman Table 2	SW8240	S	.	0.018484	ND	0.00193	mg/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=Xylene (total) ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	1.54918	ND	0.00438	mg/kg	
Holloman Table 2	SW8240	S	2.09	2.09000	DET	0.14600	mg/kg	B
Holloman Table 2	SW8240	S	.	1.67803	ND	0.00412	mg/kg	

N = 3

----- SWMUs Group=155 Method=Organics Analyte=bis(2-Ethylhexyl)phthalate ------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	337.597	ND	70.1	ug/kg	
Holloman Table 2	SW8270	S	496	496.000	DET	227.0	ug/kg	
Holloman Table 2	SW8270	S	.	347.805	ND	66.3	ug/kg	

N = 3

---------- SWMUs Group=155 Method=Organics Analyte=gamma-Chlordane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.0011106	ND	0.00342	mg/kg	
Holloman Table 2	SW8080	S	.00862	.0086200	DET	0.01890	mg/kg	J
Holloman Table 2	SW8080	S	.	.0047365	ND	0.00321	mg/kg	

N = 3

---------- SWMUs Group=156 Method=Inorganics Analyte=Antimony ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-2.4100	-2.4100	DET	1.72	mg/kg	BJ
Holloman Table 2	SW6010	S	-10.9000	-10.9000	DET	1.93	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.3650	-0.3650	DET	1.52	mg/kg	BJ
Holloman Table 2	SW6010	S	-7.2100	-7.2100	DET	1.33	mg/kg	BJ
Holloman Table 2	SW6010	S	-4.8700	-4.8700	DET	1.65	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0087	-0.0087	DET	1.67	mg/kg	BJ
Holloman Table 2	SW6010	S	-5.0000	-5.0000	DET	1.90	mg/kg	BJ
Holloman Table 2	SW6010	S	-3.2200	-3.2200	DET	1.30	mg/kg	BJ
Holloman Table 2	SW6010	S	-1.3600	-1.3600	DET	1.75	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.4290	-0.4290	DET	1.75	mg/kg	BJ
Holloman Table 2	SW6010	S	2.9600	2.9600	DET	1.93	mg/kg	B

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	1.350	1.350	DET	0.635	mg/kg	B
Holloman Table 2	SW7060	S	-0.769	-0.769	DET	0.683	mg/kg	BJ
Holloman Table 2	SW7060	S	6.260	6.260	DET	0.553	mg/kg	B
Holloman Table 2	SW7060	S	2.240	2.240	DET	0.518	mg/kg	S
Holloman Table 2	SW7060	S	5.300	5.300	DET	0.730	mg/kg	S
Holloman Table 2	SW7060	S	2.860	2.860	DET	0.754	mg/kg	
Holloman Table 2	SW7060	S	0.576	0.576	DET	0.734	mg/kg	J
Holloman Table 2	SW7060	S	0.506	0.506	DET	0.624	mg/kg	J
Holloman Table 2	SW7060	S	3.670	3.670	DET	0.763	mg/kg	
Holloman Table 2	SW7060	S	2.730	2.730	DET	0.617	mg/kg	
Holloman Table 2	SW7060	S	1.730	1.730	DET	0.950	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	41.6	41.6	DET	0.0515	mg/kg	
Holloman Table 2	SW6010	S	18.9	18.9	DET	0.0578	mg/kg	
Holloman Table 2	SW6010	S	35.0	35.0	DET	0.0457	mg/kg	
Holloman Table 2	SW6010	S	36.5	36.5	DET	0.0399	mg/kg	
Holloman Table 2	SW6010	S	61.1	61.1	DET	0.0495	mg/kg	
Holloman Table 2	SW6010	S	61.9	61.9	DET	0.0502	mg/kg	
Holloman Table 2	SW6010	S	52.6	52.6	DET	0.0571	mg/kg	
Holloman Table 2	SW6010	S	30.4	30.4	DET	0.0390	mg/kg	

---------- SWMUs Group=156 Method=Inorganics Analyte=Barium ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	68.3	68.3	DET	0.0524	mg/kg	
Holloman Table 2	SW6010	S	63.7	63.7	DET	0.0524	mg/kg	
Holloman Table 2	SW6010	S	86.7	86.7	DET	0.0580	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Beryllium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.3950	0.3950	DET	0.0523	mg/kg	B
Holloman Table 2	SW6010	S	0.0589	0.0589	DET	0.0588	mg/kg	B
Holloman Table 2	SW6010	S	0.3530	0.3530	DET	0.0465	mg/kg	B
Holloman Table 2	SW6010	S	0.1740	0.1740	DET	0.0406	mg/kg	
Holloman Table 2	SW6010	S	0.6350	0.6350	DET	0.0503	mg/kg	
Holloman Table 2	SW6010	S	0.4720	0.4720	DET	0.0511	mg/kg	
Holloman Table 2	SW6010	S	0.4100	0.4100	DET	0.0581	mg/kg	
Holloman Table 2	SW6010	S	0.2230	0.2230	DET	0.0396	mg/kg	
Holloman Table 2	SW6010	S	0.4140	0.4140	DET	0.0533	mg/kg	
Holloman Table 2	SW6010	S	0.5520	0.5520	DET	0.0533	mg/kg	
Holloman Table 2	SW6010	S	1.8700	1.8700	DET	0.0590	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.3580	0.3580	DET	0.255	mg/kg	B
Holloman Table 2	SW6010	S	-0.0678	-0.0678	DET	0.286	mg/kg	BJ
Holloman Table 2	SW6010	S	0.7000	0.7000	DET	0.227	mg/kg	B
Holloman Table 2	SW6010	S	-0.0992	-0.0992	DET	0.198	mg/kg	J
Holloman Table 2	SW6010	S	0.2730	0.2730	DET	0.245	mg/kg	
Holloman Table 2	SW6010	S	0.2650	0.2650	DET	0.249	mg/kg	B
Holloman Table 2	SW6010	S	0.0809	0.0809	DET	0.283	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1260	0.1260	DET	0.193	mg/kg	BJ
Holloman Table 2	SW6010	S	0.3020	0.3020	DET	0.260	mg/kg	B
Holloman Table 2	SW6010	S	0.1790	0.1790	DET	0.259	mg/kg	BJ
Holloman Table 2	SW6010	S	0.3930	0.3930	DET	0.288	mg/kg	B

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	9.19	9.19	DET	0.243	mg/kg	B
Holloman Table 2	SW6010	S	3.88	3.88	DET	0.272	mg/kg	B
Holloman Table 2	SW6010	S	8.38	8.38	DET	0.216	mg/kg	B
Holloman Table 2	SW6010	S	5.55	5.55	DET	0.188	mg/kg	B
Holloman Table 2	SW6010	S	10.30	10.30	DET	0.233	mg/kg	B
Holloman Table 2	SW6010	S	11.80	11.80	DET	0.237	mg/kg	B
Holloman Table 2	SW6010	S	12.40	12.40	DET	0.269	mg/kg	B
Holloman Table 2	SW6010	S	7.00	7.00	DET	0.184	mg/kg	B
Holloman Table 2	SW6010	S	11.80	11.80	DET	0.247	mg/kg	B
Holloman Table 2	SW6010	S	17.60	17.60	DET	0.247	mg/kg	B
Holloman Table 2	SW6010	S	17.50	17.50	DET	0.274	mg/kg	B

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Cobalt ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	2.29	2.29	DET	0.464	mg/kg	
Holloman Table 2	SW6010	S	1.17	1.17	DET	0.521	mg/kg	
Holloman Table 2	SW6010	S	2.43	2.43	DET	0.412	mg/kg	
Holloman Table 2	SW6010	S	1.77	1.77	DET	0.360	mg/kg	B
Holloman Table 2	SW6010	S	3.44	3.44	DET	0.446	mg/kg	B
Holloman Table 2	SW6010	S	2.73	2.73	DET	0.453	mg/kg	
Holloman Table 2	SW6010	S	2.79	2.79	DET	0.515	mg/kg	
Holloman Table 2	SW6010	S	1.40	1.40	DET	0.351	mg/kg	
Holloman Table 2	SW6010	S	2.75	2.75	DET	0.472	mg/kg	
Holloman Table 2	SW6010	S	3.25	3.25	DET	0.472	mg/kg	
Holloman Table 2	SW6010	S	4.04	4.04	DET	0.523	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Copper ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	4.19	4.19	DET	0.220	mg/kg	
Holloman Table 2	SW6010	S	1.79	1.79	DET	0.246	mg/kg	
Holloman Table 2	SW6010	S	3.77	3.77	DET	0.195	mg/kg	
Holloman Table 2	SW6010	S	3.51	3.51	DET	0.170	mg/kg	
Holloman Table 2	SW6010	S	5.04	5.04	DET	0.211	mg/kg	
Holloman Table 2	SW6010	S	4.84	4.84	DET	0.214	mg/kg	B
Holloman Table 2	SW6010	S	5.86	5.86	DET	0.244	mg/kg	B
Holloman Table 2	SW6010	S	3.22	3.22	DET	0.166	mg/kg	B

---------- SWMUs Group=156 Method=Inorganics Analyte=Copper ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	6.30	6.30	DET	0.223	mg/kg	B
Holloman Table 2	SW6010	S	6.79	6.79	DET	0.223	mg/kg	B
Holloman Table 2	SW6010	S	8.07	8.07	DET	0.248	mg/kg	B

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Cyanide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW9012	S	0.1660	0.1660	DET	0.313	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1150	0.1150	DET	0.338	mg/kg	BJ
Holloman Table 2	SW9012	S	0.0764	0.0764	DET	0.294	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1080	0.1080	DET	0.283	mg/kg	BJ
Holloman Table 2	SW9012	S	0.0362	0.0362	DET	0.302	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1780	0.1780	DET	0.287	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1680	0.1680	DET	0.317	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1810	0.1810	DET	0.288	mg/kg	BJ
Holloman Table 2	SW9012	S	0.2130	0.2130	DET	0.308	mg/kg	BJ
Holloman Table 2	SW9012	S	0.1790	0.1790	DET	0.315	mg/kg	BJ
Holloman Table 2	SW9012	S	0.2190	0.2190	DET	0.370	mg/kg	BJ

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	5.340	5.340	DET	0.1470	mg/kg	S
Holloman Table 2	SW7421	S	0.783	0.783	DET	0.0805	mg/kg	S
Holloman Table 2	SW7421	S	5.640	5.640	DET	0.1580	mg/kg	SB
Holloman Table 2	SW7421	S	2.970	2.970	DET	0.4160	mg/kg	B
Holloman Table 2	SW7421	S	6.420	6.420	DET	0.3730	mg/kg	B
Holloman Table 2	SW7421	S	5.840	5.840	DET	0.1530	mg/kg	SB
Holloman Table 2	SW7421	S	6.330	6.330	DET	0.1490	mg/kg	SB
Holloman Table 2	SW7421	S	6.640	6.640	DET	0.1260	mg/kg	SB
Holloman Table 2	SW7421	S	7.280	7.280	DET	0.3870	mg/kg	SB
Holloman Table 2	SW7421	S	14.800	14.800	DET	0.3130	mg/kg	SB
Holloman Table 2	SW7421	S	11.600	11.600	DET	0.4810	mg/kg	SB

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.01250	0.01250	DET	0.0150	mg/kg	BJ
Holloman Table 2	SW7471	S	0.03570	0.03570	DET	0.0171	mg/kg	B
Holloman Table 2	SW7471	S	0.04940	0.04940	DET	0.0148	mg/kg	B
Holloman Table 2	SW7471	S	-0.00625	-0.00625	DET	0.0150	mg/kg	J
Holloman Table 2	SW7471	S	-0.00625	-0.00625	DET	0.0150	mg/kg	J
Holloman Table 2	SW7471	S	-0.03700	-0.03700	DET	0.0148	mg/kg	J
Holloman Table 2	SW7471	S	-0.01280	-0.01280	DET	0.0154	mg/kg	J
Holloman Table 2	SW7471	S	-0.02220	-0.02220	DET	0.0152	mg/kg	J
Holloman Table 2	SW7471	S	-0.05130	-0.05130	DET	0.0154	mg/kg	J
Holloman Table 2	SW7471	S	-0.01270	-0.01270	DET	0.0152	mg/kg	J
Holloman Table 2	SW7471	S	-0.02650	-0.02650	DET	0.0182	mg/kg	J

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	-0.3630	-0.3630	DET	0.2270	mg/kg	J
Holloman Table 2	SW7740	S	0.2590	0.2590	DET	0.2440	mg/kg	
Holloman Table 2	SW7740	S	-2.0700	-2.0700	DET	0.1980	mg/kg	J
Holloman Table 2	SW7740	S	1.9300	1.9300	DET	0.1850	mg/kg	
Holloman Table 2	SW7740	S	2.3700	2.3700	DET	0.2610	mg/kg	
Holloman Table 2	SW7740	S	2.8100	2.8100	DET	0.2700	mg/kg	
Holloman Table 2	SW7740	S	2.5000	2.5000	DET	0.2620	mg/kg	
Holloman Table 2	SW7740	S	0.8880	0.8880	DET	0.2230	mg/kg	
Holloman Table 2	SW7740	S	1.8200	1.8200	DET	0.2730	mg/kg	
Holloman Table 2	SW7740	S	1.3400	1.3400	DET	0.2210	mg/kg	
Holloman Table 2	SW7740	S	-0.0143	-0.0143	DET	-0.0108	mg/kg	J

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.3630	-0.3630	DET	0.163	mg/kg	J
Holloman Table 2	SW6010	S	-0.6040	-0.6040	DET	0.183	mg/kg	J
Holloman Table 2	SW6010	S	-0.3190	-0.3190	DET	0.144	mg/kg	J
Holloman Table 2	SW6010	S	-0.0778	-0.0778	DET	0.126	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.6960	-0.6960	DET	0.156	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.6060	-0.6060	DET	0.159	mg/kg	J
Holloman Table 2	SW6010	S	-0.7290	-0.7290	DET	0.180	mg/kg	J
Holloman Table 2	SW6010	S	-0.2080	-0.2080	DET	0.123	mg/kg	J

---------- SWMUs Group=156 Method=Inorganics Analyte=Silver ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.763	-0.763	DET	0.166	mg/kg	J
Holloman Table 2	SW6010	S	-0.141	-0.141	DET	0.165	mg/kg	J
Holloman Table 2	SW6010	S	-0.636	-0.636	DET	0.183	mg/kg	J

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Sulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW9030	S	25.500	25.500	DET	31.3	mg/kg	J
Holloman Table 2	SW9030	S	29.000	29.000	DET	35.7	mg/kg	J
Holloman Table 2	SW9030	S	-0.493	-0.493	DET	133.0	mg/kg	J
Holloman Table 2	SW9030	S	-12.800	-12.800	DET	31.1	mg/kg	J
Holloman Table 2	SW9030	S	-12.900	-12.900	DET	31.3	mg/kg	J
Holloman Table 2	SW9030	S	-3.770	-3.770	DET	31.0	mg/kg	J
Holloman Table 2	SW9030	S	-3.900	-3.900	DET	32.1	mg/kg	J
Holloman Table 2	SW9030	S	-30.300	-30.300	DET	31.6	mg/kg	J
Holloman Table 2	SW9030	S	-3.880	-3.880	DET	31.9	mg/kg	J
Holloman Table 2	SW9030	S	-3.850	-3.850	DET	31.6	mg/kg	J
Holloman Table 2	SW9030	S	27.000	27.000	DET	37.6	mg/kg	J

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Vanadium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	19.0	19.0	DET	0.382	mg/kg	
Holloman Table 2	SW6010	S	12.7	12.7	DET	0.429	mg/kg	
Holloman Table 2	SW6010	S	18.2	18.2	DET	0.339	mg/kg	
Holloman Table 2	SW6010	S	12.2	12.2	DET	0.296	mg/kg	
Holloman Table 2	SW6010	S	15.9	15.9	DET	0.367	mg/kg	
Holloman Table 2	SW6010	S	20.6	20.6	DET	0.373	mg/kg	B
Holloman Table 2	SW6010	S	25.7	25.7	DET	0.424	mg/kg	B
Holloman Table 2	SW6010	S	12.9	12.9	DET	0.289	mg/kg	B
Holloman Table 2	SW6010	S	23.5	23.5	DET	0.389	mg/kg	B
Holloman Table 2	SW6010	S	21.3	21.3	DET	0.389	mg/kg	B
Holloman Table 2	SW6010	S	22.6	22.6	DET	0.431	mg/kg	B

N = 11

---------- SWMUs Group=156 Method=Inorganics Analyte=Zinc ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	19.60	19.60	DET	0.259	mg/kg	B
Holloman Table 2	SW6010	S	3.19	3.19	DET	0.290	mg/kg	B
Holloman Table 2	SW6010	S	18.20	18.20	DET	0.230	mg/kg	B
Holloman Table 2	SW6010	S	12.90	12.90	DET	0.200	mg/kg	
Holloman Table 2	SW6010	S	23.90	23.90	DET	0.249	mg/kg	
Holloman Table 2	SW6010	S	24.20	24.20	DET	0.252	mg/kg	B
Holloman Table 2	SW6010	S	25.60	25.60	DET	0.287	mg/kg	B
Holloman Table 2	SW6010	S	14.50	14.50	DET	0.196	mg/kg	B
Holloman Table 2	SW6010	S	27.00	27.00	DET	0.263	mg/kg	B
Holloman Table 2	SW6010	S	33.20	33.20	DET	0.263	mg/kg	B
Holloman Table 2	SW6010	S	49.50	49.50	DET	0.292	mg/kg	B

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=2,4,5-T ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.	0.001535	ND	0.0163	mg/kg	
Holloman Table 2	SW8150	S	.	0.001967	ND	0.0181	mg/kg	
Holloman Table 2	SW8150	S	.	0.000866	ND	0.0159	mg/kg	
Holloman Table 2	SW8150	S	0.00340	0.003400	DET	0.0156	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00344	0.003440	DET	0.0159	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00588	0.005880	DET	0.0159	mg/kg	PJ
Holloman Table 2	SW8150	S	0.01330	0.013300	DET	0.0165	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00679	0.006790	DET	0.0160	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00723	0.007230	DET	0.0165	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00701	0.007010	DET	0.0162	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00715	0.007150	DET	0.0193	mg/kg	PJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=2,4-DB ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	0.0147	0.014700	DET	0.0252	mg/kg	KJ
Holloman Table 2	SW8150	S	.	0.003657	ND	0.0281	mg/kg	
Holloman Table 2	SW8150	S	.	0.000783	ND	0.0247	mg/kg	
Holloman Table 2	SW8150	S	.	0.007144	ND	0.0243	mg/kg	
Holloman Table 2	SW8150	S	.	0.008183	ND	0.0247	mg/kg	
Holloman Table 2	SW8150	S	0.0218	0.021800	DET	0.0221	mg/kg	KJ
Holloman Table 2	SW8150	S	.	0.002860	ND	0.0256	mg/kg	
Holloman Table 2	SW8150	S	.	0.003208	ND	0.0249	mg/kg	

---------- SWMUs Group=156 Method=Organics Analyte=2,4-DB ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.	0.003938	ND	0.0256	mg/kg	
Holloman Table 2	SW8150	S	.	0.011964	ND	0.0251	mg/kg	
Holloman Table 2	SW8150	S	0.0258	0.025800	DET	0.0269	mg/kg	KJ

N = 11

--------- SWMUs Group=156 Method=Organics Analyte=2-Methylnaphthalene ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	24.4827	ND	30.4	ug/kg	
Holloman Table 2	SW8270	S	.	23.8649	ND	34.6	ug/kg	
Holloman Table 2	SW8270	S	.	26.9683	ND	29.8	ug/kg	
Holloman Table 2	SW8270	S	.	39.1684	ND	30.1	ug/kg	
Holloman Table 2	SW8270	S	.	37.0588	ND	30.5	ug/kg	
Holloman Table 2	SW8270	S	.	1.0368	ND	30.0	ug/kg	
Holloman Table 2	SW8270	S	47	47.0000	DET	30.9	ug/kg	
Holloman Table 2	SW8270	S	.	36.4221	ND	30.3	ug/kg	
Holloman Table 2	SW8270	S	.	23.7825	ND	30.8	ug/kg	
Holloman Table 2	SW8270	S	.	46.6262	ND	30.6	ug/kg	
Holloman Table 2	SW8270	S	.	37.8584	ND	36.5	ug/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=4,4'-DDD ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	0.02290	0.02290	DET	0.000991	mg/kg	
Holloman Table 2	SW8080	S	.	0.00001	ND	0.022500	mg/kg	
Holloman Table 2	SW8080	S	0.00039	0.00039	DET	0.000983	mg/kg	J
Holloman Table 2	SW8080	S	0.18300	0.18300	DET	0.009980	mg/kg	
Holloman Table 2	SW8080	S	0.00061	0.00061	DET	0.001000	mg/kg	J
Holloman Table 2	SW8080	S	.	0.00031	ND	0.001980	mg/kg	
Holloman Table 2	SW8080	S	.	0.00036	ND	0.020500	mg/kg	
Holloman Table 2	SW8080	S	0.00078	0.00078	DET	0.002020	mg/kg	KJ
Holloman Table 2	SW8080	S	0.00639	0.00639	DET	0.002040	mg/kg	
Holloman Table 2	SW8080	S	0.01160	0.01160	DET	0.002020	mg/kg	
Holloman Table 2	SW8080	S	0.00116	0.00116	DET	0.002400	mg/kg	J

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=4,4'-DDE ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	0.022000	0.022000	DET
Holloman Table 2	SW8080	S	.	0.000246	ND
Holloman Table 2	SW8080	S	.	0.000405	ND
Holloman Table 2	SW8080	S	0.027600	0.027600	DET
Holloman Table 2	SW8080	S	.	0.000241	ND
Holloman Table 2	SW8080	S	.	0.000292	ND
Holloman Table 2	SW8080	S	.	0.000362	ND
Holloman Table 2	SW8080	S	.	0.000409	ND
Holloman Table 2	SW8080	S	0.002570	0.002570	DET
Holloman Table 2	SW8080	S	0.004060	0.004060	DET
Holloman Table 2	SW8080	S	0.000412	0.000412	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.000198	mg/kg	
Holloman Table 2	SW8080	.004500	mg/kg	
Holloman Table 2	SW8080	.000197	mg/kg	
Holloman Table 2	SW8080	.002000	mg/kg	
Holloman Table 2	SW8080	.000201	mg/kg	
Holloman Table 2	SW8080	.000396	mg/kg	
Holloman Table 2	SW8080	.003070	mg/kg	
Holloman Table 2	SW8080	.000403	mg/kg	
Holloman Table 2	SW8080	.000408	mg/kg	
Holloman Table 2	SW8080	.000405	mg/kg	
Holloman Table 2	SW8080	.000480	mg/kg	J

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=4,4'-DDT ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	0.0449	0.044900	DET	.000285	mg/kg	
Holloman Table 2	SW8080	S	.	0.000012	ND	.006460	mg/kg	
Holloman Table 2	SW8080	S	.	0.000034	ND	.000283	mg/kg	
Holloman Table 2	SW8080	S	.	0.000074	ND	.002870	mg/kg	

---------- SWMUs Group=156 Method=Organics Analyte=4,4'-DDT ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.000128	.00012800	DET
Holloman Table 2	SW8080	S	.	.00005642	ND
Holloman Table 2	SW8080	S	.	.00003588	ND
Holloman Table 2	SW8080	S	.000201	.00020100	DET
Holloman Table 2	SW8080	S	.000210	.00021000	DET
Holloman Table 2	SW8080	S	.	.00000197	ND
Holloman Table 2	SW8080	S	.	.00002797	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.000263	mg/kg	KJ
Holloman Table 2	SW8080	.000570	mg/kg	
Holloman Table 2	SW8080	.005890	mg/kg	
Holloman Table 2	SW8080	.000529	mg/kg	KJ
Holloman Table 2	SW8080	.000536	mg/kg	KJ
Holloman Table 2	SW8080	.000582	mg/kg	
Holloman Table 2	SW8080	.000691	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0485	0.0485	DET	0.0305	mg/kg	B
Holloman Table 2	SW8240	S	0.0136	0.0136	DET	0.0348	mg/kg	BXJ
Holloman Table 2	SW8240	S	0.0113	0.0113	DET	0.0299	mg/kg	BJ
Holloman Table 2	SW8240	S	0.1590	0.1590	DET	0.0613	mg/kg	B
Holloman Table 2	SW8240	S	0.0145	0.0145	DET	0.0307	mg/kg	BJ
Holloman Table 2	SW8240	S	0.0723	0.0723	DET	0.0299	mg/kg	B
Holloman Table 2	SW8240	S	0.0259	0.0259	DET	0.0312	mg/kg	BJ
Holloman Table 2	SW8240	S	0.0091	0.0091	DET	0.0310	mg/kg	BJ

---------- SWMUs Group=156 Method=Organics Analyte=Acetone ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0347	0.0347	DET	0.0314	mg/kg	B
Holloman Table 2	SW8240	S	0.0473	0.0473	DET	0.0311	mg/kg	B
Holloman Table 2	SW8240	S	0.0144	0.0144	DET	0.0368	mg/kg	BJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Aldrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.000667	.00066700	DET
Holloman Table 2	SW8080	S	.	.00053025	ND
Holloman Table 2	SW8080	S	.	.00008848	ND
Holloman Table 2	SW8080	S	.	.00020095	ND
Holloman Table 2	SW8080	S	.	.00018220	ND
Holloman Table 2	SW8080	S	.	.00020286	ND
Holloman Table 2	SW8080	S	.	.00005725	ND
Holloman Table 2	SW8080	S	.	.00003804	ND
Holloman Table 2	SW8080	S	.	.00040082	ND
Holloman Table 2	SW8080	S	.	.00006167	ND
Holloman Table 2	SW8080	S	.	.00063066	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.0000991	mg/kg	
Holloman Table 2	SW8080	.0022500	mg/kg	
Holloman Table 2	SW8080	.0000983	mg/kg	
Holloman Table 2	SW8080	.0009980	mg/kg	
Holloman Table 2	SW8080	.0001000	mg/kg	
Holloman Table 2	SW8080	.0001980	mg/kg	
Holloman Table 2	SW8080	.0020500	mg/kg	
Holloman Table 2	SW8080	.0002020	mg/kg	
Holloman Table 2	SW8080	.0002040	mg/kg	
Holloman Table 2	SW8080	.0002020	mg/kg	
Holloman Table 2	SW8080	.0002400	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.006316	ND	.00499	mg/kg	
Holloman Table 2	SW8240	S	0.0194	0.019400	DET	.00569	mg/kg	X
Holloman Table 2	SW8240	S	.	0.008502	ND	.00488	mg/kg	
Holloman Table 2	SW8240	S	.	0.011611	ND	.00494	mg/kg	
Holloman Table 2	SW8240	S	.	0.005546	ND	.00502	mg/kg	
Holloman Table 2	SW8240	S	.	0.015870	ND	.00489	mg/kg	
Holloman Table 2	SW8240	S	.	0.013592	ND	.00509	mg/kg	
Holloman Table 2	SW8240	S	.	0.004212	ND	.00507	mg/kg	
Holloman Table 2	SW8240	S	.	0.005032	ND	.00513	mg/kg	
Holloman Table 2	SW8240	S	.	0.003054	ND	.00509	mg/kg	
Holloman Table 2	SW8240	S	.	0.003049	ND	.00601	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Diazinon ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.001210	.0012100	DET	0.0121	mg/kg	J
Holloman Table 2	SW8140	S	.	.0005641	ND	0.2730	mg/kg	
Holloman Table 2	SW8140	S	.	.0000724	ND	0.0120	mg/kg	
Holloman Table 2	SW8140	S	.	.0003486	ND	0.2430	mg/kg	
Holloman Table 2	SW8140	S	.	.0006058	ND	0.0122	mg/kg	
Holloman Table 2	SW8140	S	.	.0003487	ND	0.1210	mg/kg	
Holloman Table 2	SW8140	S	.	.0001985	ND	0.2480	mg/kg	
Holloman Table 2	SW8140	S	.000839	.0008390	DET	0.0248	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0001591	ND	0.1230	mg/kg	
Holloman Table 2	SW8140	S	.000737	.0007370	DET	0.0250	mg/kg	KJ
Holloman Table 2	SW8140	S	.002480	.0024800	DET	0.0294	mg/kg	KJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Dibenzofuran ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	7.6749	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	16.5507	ND	26.4	ug/kg	
Holloman Table 2	SW8270	S	.	6.9917	ND	22.7	ug/kg	
Holloman Table 2	SW8270	S	.	0.4730	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	.	8.0802	ND	23.2	ug/kg	
Holloman Table 2	SW8270	S	.	11.0055	ND	22.9	ug/kg	
Holloman Table 2	SW8270	S	16.7	16.7000	DET	23.5	ug/kg	J
Holloman Table 2	SW8270	S	.	3.9849	ND	23.1	ug/kg	

---------- SWMUs Group=156 Method=Organics Analyte=Dibenzofuran ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	16.6330	ND	23.5	ug/kg	
Holloman Table 2	SW8270	S	.	0.8281	ND	23.4	ug/kg	
Holloman Table 2	SW8270	S	.	7.0798	ND	27.8	ug/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Dicamba ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc
Holloman Table 2	SW8150	S	.	.0000024567
Holloman Table 2	SW8150	S	.	.0000022894
Holloman Table 2	SW8150	S	.0000039	.0000039000
Holloman Table 2	SW8150	S	.	.0000014852
Holloman Table 2	SW8150	S	.	.0000024481
Holloman Table 2	SW8150	S	.	.0000033681
Holloman Table 2	SW8150	S	.	.0000022672
Holloman Table 2	SW8150	S	.	.0000006533
Holloman Table 2	SW8150	S	.	.0000009898
Holloman Table 2	SW8150	S	.	.0000037806
Holloman Table 2	SW8150	S	.	.0000015191

Data Source	Analytical Method	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	ND	.00248	mg/kg	
Holloman Table 2	SW8150	ND	.00276	mg/kg	
Holloman Table 2	SW8150	DET	.00242	mg/kg	KJ
Holloman Table 2	SW8150	ND	.00238	mg/kg	
Holloman Table 2	SW8150	ND	.00242	mg/kg	
Holloman Table 2	SW8150	ND	.00242	mg/kg	
Holloman Table 2	SW8150	ND	.00251	mg/kg	
Holloman Table 2	SW8150	ND	.00244	mg/kg	
Holloman Table 2	SW8150	ND	.00251	mg/kg	
Holloman Table 2	SW8150	ND	.00247	mg/kg	
Holloman Table 2	SW8150	ND	.00293	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Dichloroprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	0.01080	0.01080	DET	0.0442	mg/kg	PJ
Holloman Table 2	SW8150	S	0.00789	0.00789	DET	0.0492	mg/kg	PJ
Holloman Table 2	SW8150	S	0.01380	0.01380	DET	0.0432	mg/kg	PJ
Holloman Table 2	SW8150	S	0.03600	0.03600	DET	0.4990	mg/kg	CJ
Holloman Table 2	SW8150	S	0.00908	0.00908	DET	0.5080	mg/kg	J
Holloman Table 2	SW8150	S	0.01690	0.01690	DET	0.0432	mg/kg	PJ
Holloman Table 2	SW8150	S	0.09920	0.09920	DET	0.5260	mg/kg	J
Holloman Table 2	SW8150	S	0.06250	0.06250	DET	0.5120	mg/kg	J
Holloman Table 2	SW8150	S	0.02060	0.02060	DET	0.0448	mg/kg	PJ
Holloman Table 2	SW8150	S	0.03930	0.03930	DET	0.5160	mg/kg	J
Holloman Table 2	SW8150	S	0.01880	0.01880	DET	0.0524	mg/kg	PJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Dinoseb ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	.00829	.0082900	DET	0.0249	mg/kg	KJ
Holloman Table 2	SW8150	S	.	.0016038	ND	0.0277	mg/kg	
Holloman Table 2	SW8150	S	.	.0080579	ND	0.0243	mg/kg	
Holloman Table 2	SW8150	S	.	.0080994	ND	0.0239	mg/kg	
Holloman Table 2	SW8150	S	.	.0032557	ND	0.0244	mg/kg	
Holloman Table 2	SW8150	S	.	.0001119	ND	0.0243	mg/kg	
Holloman Table 2	SW8150	S	.	.0001646	ND	0.0252	mg/kg	
Holloman Table 2	SW8150	S	.	.0017617	ND	0.0246	mg/kg	
Holloman Table 2	SW8150	S	.	.0050596	ND	0.0252	mg/kg	
Holloman Table 2	SW8150	S	.	.0022991	ND	0.0248	mg/kg	
Holloman Table 2	SW8150	S	.	.0069492	ND	0.0295	mg/kg	

N = 11

--------- SWMUs Group=156 Method=Organics Analyte=Endosulfan Sulfate ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.0000547	.00005470	DET
Holloman Table 2	SW8080	S	.	.00001989	ND
Holloman Table 2	SW8080	S	.0000236	.00002360	DET
Holloman Table 2	SW8080	S	.	.00000690	ND
Holloman Table 2	SW8080	S	.0002440	.00024400	DET
Holloman Table 2	SW8080	S	.0000811	.00008110	DET
Holloman Table 2	SW8080	S	.	.00000239	ND
Holloman Table 2	SW8080	S	.0003830	.00038300	DET
Holloman Table 2	SW8080	S	.0002500	.00025000	DET
Holloman Table 2	SW8080	S	.0001860	.00018600	DET
Holloman Table 2	SW8080	S	.0002880	.00028800	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	0.000537	mg/kg	KJ
Holloman Table 2	SW8080	0.012200	mg/kg	
Holloman Table 2	SW8080	0.000532	mg/kg	KJ
Holloman Table 2	SW8080	0.005400	mg/kg	
Holloman Table 2	SW8080	0.000543	mg/kg	KJ
Holloman Table 2	SW8080	0.001070	mg/kg	J
Holloman Table 2	SW8080	0.011100	mg/kg	
Holloman Table 2	SW8080	0.001090	mg/kg	KJ
Holloman Table 2	SW8080	0.001110	mg/kg	KJ
Holloman Table 2	SW8080	0.001100	mg/kg	KJ
Holloman Table 2	SW8080	0.001300	mg/kg	KJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Endrin ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.000342	.00034200	DET
Holloman Table 2	SW8080	S	.	.00032435	ND
Holloman Table 2	SW8080	S	.	.00017806	ND
Holloman Table 2	SW8080	S	.	.00017336	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	0.000397	mg/kg	KJ
Holloman Table 2	SW8080	0.015900	mg/kg	
Holloman Table 2	SW8080	0.000696	mg/kg	
Holloman Table 2	SW8080	0.007070	mg/kg	

---------- SWMUs Group=156 Method=Organics Analyte=Endrin ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	.	.00011115	ND	0.00071	mg/kg	
Holloman Table 2	SW8080	S	.	.00031774	ND	0.00140	mg/kg	
Holloman Table 2	SW8080	S	.	.00009298	ND	0.01450	mg/kg	
Holloman Table 2	SW8080	S	.	.00011777	ND	0.00143	mg/kg	
Holloman Table 2	SW8080	S	.	.00002740	ND	0.00145	mg/kg	
Holloman Table 2	SW8080	S	.	.00026251	ND	0.00143	mg/kg	
Holloman Table 2	SW8080	S	.	.00017199	ND	0.00170	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Endrin Aldehyde ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.0000213	ND
Holloman Table 2	SW8080	S	.	.0000980	ND
Holloman Table 2	SW8080	S	.000332	.0003320	DET
Holloman Table 2	SW8080	S	.002950	.0029500	DET
Holloman Table 2	SW8080	S	.	.0002566	ND
Holloman Table 2	SW8080	S	.	.0001546	ND
Holloman Table 2	SW8080	S	.	.0001332	ND
Holloman Table 2	SW8080	S	.	.0001927	ND
Holloman Table 2	SW8080	S	.000436	.0004360	DET
Holloman Table 2	SW8080	S	.	.0002836	ND
Holloman Table 2	SW8080	S	.	.0000841	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	0.000372	mg/kg	
Holloman Table 2	SW8080	0.010300	mg/kg	
Holloman Table 2	SW8080	0.000369	mg/kg	KJ
Holloman Table 2	SW8080	0.004570	mg/kg	KJ
Holloman Table 2	SW8080	0.000459	mg/kg	
Holloman Table 2	SW8080	0.000908	mg/kg	
Holloman Table 2	SW8080	0.009390	mg/kg	
Holloman Table 2	SW8080	0.000924	mg/kg	
Holloman Table 2	SW8080	0.000935	mg/kg	KJ
Holloman Table 2	SW8080	0.000927	mg/kg	
Holloman Table 2	SW8080	0.001100	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Ethanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	.	0.78077	ND	1.06	mg/kg	
Holloman Table 2	SW8015	S	.	0.42822	ND	1.31	mg/kg	
Holloman Table 2	SW8015	S	.	1.69170	ND	1.04	mg/kg	
Holloman Table 2	SW8015	S	.	1.68673	ND	1.06	mg/kg	
Holloman Table 2	SW8015	S	.	1.31826	ND	1.07	mg/kg	
Holloman Table 2	SW8015	S	1.95	1.95000	DET	6.19	mg/kg	KJ
Holloman Table 2	SW8015	S	1.86	1.86000	DET	6.55	mg/kg	KJ
Holloman Table 2	SW8015	S	.	1.45645	ND	1.08	mg/kg	
Holloman Table 2	SW8015	S	1.90	1.90000	DET	6.52	mg/kg	KJ
Holloman Table 2	SW8015	S	1.94	1.94000	DET	6.42	mg/kg	KJ
Holloman Table 2	SW8015	S	2.10	2.10000	DET	8.46	mg/kg	KJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Ethoprop ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.00479	0.004790	DET	0.00801	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.003528	ND	0.01090	mg/kg	
Holloman Table 2	SW8140	S	0.00372	0.003720	DET	0.00792	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.001770	ND	0.19300	mg/kg	
Holloman Table 2	SW8140	S	0.00419	0.004190	DET	0.00974	mg/kg	KJ
Holloman Table 2	SW8140	S	0.02610	0.026100	DET	0.09600	mg/kg	KJ
Holloman Table 2	SW8140	S	0.01870	0.018700	DET	0.19700	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00848	0.008480	DET	0.00972	mg/kg	KJ
Holloman Table 2	SW8140	S	0.02660	0.026600	DET	0.09820	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00929	0.009290	DET	0.00979	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.002654	ND	0.00955	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Fensulfothion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.00337	.0033700	DET	0.0124	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0004214	ND	0.0153	mg/kg	
Holloman Table 2	SW8140	S	.00368	.0036800	DET	0.0123	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0004100	ND	0.2720	mg/kg	
Holloman Table 2	SW8140	S	.00375	.0037500	DET	0.0137	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0025020	ND	0.1350	mg/kg	
Holloman Table 2	SW8140	S	.	.0003117	ND	0.2780	mg/kg	
Holloman Table 2	SW8140	S	.00596	.0059600	DET	0.0137	mg/kg	KJ

---------- SWMUs Group=156 Method=Organics Analyte=Fensulfothion ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.02630	0.02630	DET	0.1380	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00506	0.00506	DET	0.0138	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00774	0.00774	DET	0.0162	mg/kg	KJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Heptachlor ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc
Holloman Table 2	SW8080	S	.0000054	.0000054000
Holloman Table 2	SW8080	S	.	.0000034557
Holloman Table 2	SW8080	S	.	.0000029137
Holloman Table 2	SW8080	S	.	.0000009984
Holloman Table 2	SW8080	S	.	.0000038002
Holloman Table 2	SW8080	S	.	.0000030295
Holloman Table 2	SW8080	S	.	.0000037373
Holloman Table 2	SW8080	S	.	.0000042872
Holloman Table 2	SW8080	S	.	.0000000609
Holloman Table 2	SW8080	S	.	.0000004946
Holloman Table 2	SW8080	S	.	.0000030975

Data Source	Analytical Method	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	DET	.000120	mg/kg	PJ
Holloman Table 2	SW8080	ND	.002720	mg/kg	
Holloman Table 2	SW8080	ND	.000119	mg/kg	
Holloman Table 2	SW8080	ND	.001210	mg/kg	
Holloman Table 2	SW8080	ND	.000121	mg/kg	
Holloman Table 2	SW8080	ND	.000239	mg/kg	
Holloman Table 2	SW8080	ND	.002480	mg/kg	
Holloman Table 2	SW8080	ND	.000244	mg/kg	
Holloman Table 2	SW8080	ND	.000247	mg/kg	
Holloman Table 2	SW8080	ND	.000245	mg/kg	
Holloman Table 2	SW8080	ND	.000290	mg/kg	

N = 11

-------- SWMUs Group=156 Method=Organics Analyte=Heptachlor epoxide ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.0002920	.00029200	DET
Holloman Table 2	SW8080	S	.	.00001135	ND
Holloman Table 2	SW8080	S	.0000712	.00007120	DET
Holloman Table 2	SW8080	S	.0006330	.00063300	DET
Holloman Table 2	SW8080	S	.0000121	.00001210	DET
Holloman Table 2	SW8080	S	.	.00000802	ND
Holloman Table 2	SW8080	S	.	.00001196	ND
Holloman Table 2	SW8080	S	.	.00000591	ND
Holloman Table 2	SW8080	S	.	.00000353	ND
Holloman Table 2	SW8080	S	.0000476	.00004760	DET
Holloman Table 2	SW8080	S	.0002410	.00024100	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.000136	mg/kg	
Holloman Table 2	SW8080	.003090	mg/kg	
Holloman Table 2	SW8080	.000135	mg/kg	PJ
Holloman Table 2	SW8080	.001370	mg/kg	PJ
Holloman Table 2	SW8080	.000100	mg/kg	KJ
Holloman Table 2	SW8080	.000273	mg/kg	
Holloman Table 2	SW8080	.002820	mg/kg	
Holloman Table 2	SW8080	.000277	mg/kg	
Holloman Table 2	SW8080	.000281	mg/kg	
Holloman Table 2	SW8080	.000278	mg/kg	PJ
Holloman Table 2	SW8080	.000330	mg/kg	PJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Isopropanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	.	0.43747	ND	3.28	mg/kg	
Holloman Table 2	SW8015	S	.	1.59035	ND	4.04	mg/kg	
Holloman Table 2	SW8015	S	.	0.43447	ND	3.19	mg/kg	
Holloman Table 2	SW8015	S	1.6	1.60000	DET	3.26	mg/kg	J

---------- SWMUs Group=156 Method=Organics Analyte=Isopropano ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	.	0.79092	ND	3.30	mg/kg	
Holloman Table 2	SW8015	S	.	0.09604	ND	3.22	mg/kg	
Holloman Table 2	SW8015	S	.	0.91426	ND	3.41	mg/kg	
Holloman Table 2	SW8015	S	.	1.17293	ND	3.33	mg/kg	
Holloman Table 2	SW8015	S	.	0.53551	ND	3.39	mg/kg	
Holloman Table 2	SW8015	S	.	0.50367	ND	3.34	mg/kg	
Holloman Table 2	SW8015	S	.	0.67992	ND	4.40	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=MCPP ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8150	S	7.86	7.86000	DET	8.60	mg/kg	KJ
Holloman Table 2	SW8150	S	8.28	8.28000	DET	9.57	mg/kg	KJ
Holloman Table 2	SW8150	S	7.96	7.96000	DET	8.40	mg/kg	KJ
Holloman Table 2	SW8150	S	.	6.20628	ND	2.19	mg/kg	
Holloman Table 2	SW8150	S	7.65	7.65000	DET	8.42	mg/kg	KJ
Holloman Table 2	SW8150	S	.	6.51744	ND	2.23	mg/kg	
Holloman Table 2	SW8150	S	.	7.57623	ND	2.31	mg/kg	
Holloman Table 2	SW8150	S	.	6.23695	ND	2.25	mg/kg	
Holloman Table 2	SW8150	S	.	5.99978	ND	2.31	mg/kg	
Holloman Table 2	SW8150	S	.	6.06119	ND	2.27	mg/kg	
Holloman Table 2	SW8150	S	.	4.06896	ND	2.70	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Methyl azinphos ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	.0033225	ND	0.0114	mg/kg	
Holloman Table 2	SW8140	S	.	.0034028	ND	0.0128	mg/kg	
Holloman Table 2	SW8140	S	.	.0038392	ND	0.0112	mg/kg	
Holloman Table 2	SW8140	S	.	.0008626	ND	0.2280	mg/kg	
Holloman Table 2	SW8140	S	.	.0031249	ND	0.0115	mg/kg	
Holloman Table 2	SW8140	S	.	.0038984	ND	0.1130	mg/kg	
Holloman Table 2	SW8140	S	.	.0031785	ND	0.2330	mg/kg	
Holloman Table 2	SW8140	S	.	.0019958	ND	0.0115	mg/kg	
Holloman Table 2	SW8140	S	.	.0023857	ND	0.1160	mg/kg	
Holloman Table 2	SW8140	S	.	.0040296	ND	0.0115	mg/kg	
Holloman Table 2	SW8140	S	.00403	.0040300	DET	0.0337	mg/kg	KJ

N = 11

--------- SWMUs Group=156 Method=Organics Analyte=Methyl ethyl ketone ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.00677	.0067700	DET	.00406	mg/kg	
Holloman Table 2	SW8240	S	.	.0012058	ND	.00463	mg/kg	X
Holloman Table 2	SW8240	S	.	.0025272	ND	.00397	mg/kg	
Holloman Table 2	SW8240	S	.00347	.0034700	DET	.00402	mg/kg	BJ
Holloman Table 2	SW8240	S	.	.0022128	ND	.00408	mg/kg	
Holloman Table 2	SW8240	S	.	.0032550	ND	.00398	mg/kg	
Holloman Table 2	SW8240	S	.00480	.0048000	DET	.00414	mg/kg	
Holloman Table 2	SW8240	S	.	.0021199	ND	.00413	mg/kg	
Holloman Table 2	SW8240	S	.	.0016591	ND	.00417	mg/kg	
Holloman Table 2	SW8240	S	.	.0029487	ND	.00414	mg/kg	
Holloman Table 2	SW8240	S	.	.0031501	ND	.00489	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Methyl parathion ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.	0.004026	ND	0.0105	mg/kg	
Holloman Table 2	SW8140	S	.	0.001194	ND	0.1600	mg/kg	
Holloman Table 2	SW8140	S	.	0.003664	ND	0.0104	mg/kg	
Holloman Table 2	SW8140	S	.	0.003429	ND	0.2100	mg/kg	
Holloman Table 2	SW8140	S	.	0.004324	ND	0.0106	mg/kg	
Holloman Table 2	SW8140	S	.	0.004467	ND	0.1040	mg/kg	
Holloman Table 2	SW8140	S	0.03770	0.037700	DET	0.2150	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.002272	ND	0.0106	mg/kg	
Holloman Table 2	SW8140	S	.	0.003916	ND	0.1070	mg/kg	
Holloman Table 2	SW8140	S	.	0.001109	ND	0.0106	mg/kg	
Holloman Table 2	SW8140	S	0.00495	0.004950	DET	0.0125	mg/kg	KJ

N = 11

--------- SWMUs Group=156 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0016433	ND	.00171	mg/kg	
Holloman Table 2	SW8240	S	.	.0014239	ND	.00195	mg/kg	X
Holloman Table 2	SW8240	S	.	.0016076	ND	.00168	mg/kg	
Holloman Table 2	SW8240	S	.00242	.0024200	DET	.00170	mg/kg	
Holloman Table 2	SW8240	S	.00458	.0045800	DET	.00172	mg/kg	
Holloman Table 2	SW8240	S	.	.0006895	ND	.00168	mg/kg	
Holloman Table 2	SW8240	S	.	.0019011	ND	.00175	mg/kg	
Holloman Table 2	SW8240	S	.	.0021305	ND	.00174	mg/kg	

--------- SWMUs Group=156 Method=Organics Analyte=Methylene Chloride ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0015085	ND	.00176	mg/kg	
Holloman Table 2	SW8240	S	.	.0006486	ND	.00175	mg/kg	
Holloman Table 2	SW8240	S	.	.0012230	ND	.00206	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Naled ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	0.01100	0.011000	DET	0.0142	mg/kg	KJ
Holloman Table 2	SW8140	S	0.01400	0.014000	DET	0.0160	mg/kg	KJ
Holloman Table 2	SW8140	S	0.00835	0.008350	DET	0.0140	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.005231	ND	0.2840	mg/kg	
Holloman Table 2	SW8140	S	0.01070	0.010700	DET	0.0107	mg/kg	KJ
Holloman Table 2	SW8140	S	0.06100	0.061000	DET	0.1060	mg/kg	KJ
Holloman Table 2	SW8140	S	0.02780	0.027800	DET	0.2180	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.003144	ND	0.0143	mg/kg	
Holloman Table 2	SW8140	S	0.06120	0.061200	DET	0.1080	mg/kg	KJ
Holloman Table 2	SW8140	S	.	0.008342	ND	0.0144	mg/kg	
Holloman Table 2	SW8140	S	.	0.003910	ND	0.0169	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Phenanthrene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8270	S	.	22.6193	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	19.1754	ND	38.6	ug/kg	
Holloman Table 2	SW8270	S	.	20.3729	ND	33.3	ug/kg	
Holloman Table 2	SW8270	S	.	3.2451	ND	33.6	ug/kg	
Holloman Table 2	SW8270	S	.	17.1000	ND	34.0	ug/kg	
Holloman Table 2	SW8270	S	.	15.8542	ND	33.5	ug/kg	
Holloman Table 2	SW8270	S	30.3	30.3000	DET	34.5	ug/kg	J
Holloman Table 2	SW8270	S	.	18.1128	ND	33.9	ug/kg	
Holloman Table 2	SW8270	S	.	7.3784	ND	34.4	ug/kg	
Holloman Table 2	SW8270	S	.	18.7895	ND	34.2	ug/kg	
Holloman Table 2	SW8270	S	.	22.5002	ND	40.8	ug/kg	

N = 11

-------- SWMUs Group=156 Method=Organics Analyte=Tetrachlorvinphos ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8140	S	.000471	.0004710	DET	0.00519	mg/kg	KJ
Holloman Table 2	SW8140	S	.	.0002137	ND	0.24500	mg/kg	
Holloman Table 2	SW8140	S	.	.0001262	ND	0.01080	mg/kg	
Holloman Table 2	SW8140	S	.	.0001358	ND	0.21800	mg/kg	
Holloman Table 2	SW8140	S	.	.0002547	ND	0.01100	mg/kg	
Holloman Table 2	SW8140	S	.	.0003695	ND	0.10800	mg/kg	
Holloman Table 2	SW8140	S	.	.0001531	ND	0.22300	mg/kg	
Holloman Table 2	SW8140	S	.001070	.0010700	DET	0.01100	mg/kg	KFJ
Holloman Table 2	SW8140	S	.	.0004296	ND	0.11100	mg/kg	
Holloman Table 2	SW8140	S	.001530	.0015300	DET	0.01100	mg/kg	BJ
Holloman Table 2	SW8140	S	.001730	.0017300	DET	0.01300	mg/kg	BJ

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=Thallium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7841	S	0.1770	0.1770	DET	0.1860	mg/kg	BJ
Holloman Table 2	SW7841	S	0.0865	0.0865	DET	0.2010	mg/kg	J
Holloman Table 2	SW7841	S	0.4620	0.4620	DET	0.1620	mg/kg	B
Holloman Table 2	SW7841	S	0.0788	0.0788	DET	0.0761	mg/kg	SB
Holloman Table 2	SW7841	S	0.1570	0.1570	DET	0.1070	mg/kg	SB
Holloman Table 2	SW7841	S	0.7620	0.7620	DET	0.0784	mg/kg	SB
Holloman Table 2	SW7841	S	0.1440	0.1440	DET	0.0764	mg/kg	SB
Holloman Table 2	SW7841	S	0.3470	0.3470	DET	0.0649	mg/kg	SB
Holloman Table 2	SW7841	S	0.2380	0.2380	DET	0.0794	mg/kg	SB
Holloman Table 2	SW7841	S	0.2450	0.2450	DET	0.0642	mg/kg	SB
Holloman Table 2	SW7841	S	0.3960	0.3960	DET	0.0989	mg/kg	SB

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=alpha-Chlord ---------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	0.01010	0.010100	DET
Holloman Table 2	SW8080	S	.	0.005515	ND
Holloman Table 2	SW8080	S	.	0.001735	ND
Holloman Table 2	SW8080	S	0.00669	0.006690	DET
Holloman Table 2	SW8080	S	.	0.004952	ND
Holloman Table 2	SW8080	S	.	0.005454	ND
Holloman Table 2	SW8080	S	.	0.004908	ND
Holloman Table 2	SW8080	S	.	0.000079	ND
Holloman Table 2	SW8080	S	.	0.006358	ND
Holloman Table 2	SW8080	S	.	0.004378	ND
Holloman Table 2	SW8080	S	.	0.005143	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	0.000661	mg/kg	
Holloman Table 2	SW8080	0.015000	mg/kg	
Holloman Table 2	SW8080	0.000655	mg/kg	
Holloman Table 2	SW8080	0.006650	mg/kg	
Holloman Table 2	SW8080	0.000668	mg/kg	
Holloman Table 2	SW8080	0.001320	mg/kg	
Holloman Table 2	SW8080	0.013700	mg/kg	
Holloman Table 2	SW8080	0.001340	mg/kg	
Holloman Table 2	SW8080	0.001360	mg/kg	
Holloman Table 2	SW8080	0.001350	mg/kg	
Holloman Table 2	SW8080	0.001600	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=delta-BHC ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.000878	.0008780	DET
Holloman Table 2	SW8080	S	.	.0003209	ND
Holloman Table 2	SW8080	S	.	.0007252	ND
Holloman Table 2	SW8080	S	.006220	.0062200	DET

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.0000743	mg/kg	
Holloman Table 2	SW8080	.0016900	mg/kg	
Holloman Table 2	SW8080	.0000737	mg/kg	
Holloman Table 2	SW8080	.0007480	mg/kg	

---------- SWMUs Group=156 Method=Organics Analyte=delta-BHC ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.	.00077907	ND
Holloman Table 2	SW8080	S	.	.00049231	ND
Holloman Table 2	SW8080	S	.	.00021908	ND
Holloman Table 2	SW8080	S	.	.00080904	ND
Holloman Table 2	SW8080	S	.	.00003765	ND
Holloman Table 2	SW8080	S	.	.00039619	ND
Holloman Table 2	SW8080	S	.	.00039329	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.0000752	mg/kg	
Holloman Table 2	SW8080	.0001490	mg/kg	
Holloman Table 2	SW8080	.0015400	mg/kg	
Holloman Table 2	SW8080	.0001510	mg/kg	
Holloman Table 2	SW8080	.0001530	mg/kg	
Holloman Table 2	SW8080	.0001520	mg/kg	
Holloman Table 2	SW8080	.0001800	mg/kg	

N = 11

---------- SWMUs Group=156 Method=Organics Analyte=gamma-Chlordane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8080	S	0.0152	0.015200	DET	.000149	mg/kg	
Holloman Table 2	SW8080	S	.	0.000032	ND	.003370	mg/kg	
Holloman Table 2	SW8080	S	.	0.000036	ND	.000147	mg/kg	
Holloman Table 2	SW8080	S	0.0120	0.012000	DET	.001500	mg/kg	
Holloman Table 2	SW8080	S	.	0.000014	ND	.000150	mg/kg	
Holloman Table 2	SW8080	S	.	0.000033	ND	.000297	mg/kg	
Holloman Table 2	SW8080	S	.	0.000010	ND	.003070	mg/kg	
Holloman Table 2	SW8080	S	.	0.000011	ND	.000303	mg/kg	

---------- SWMUs Group=156 Method=Organics Analyte=gamma-Chlordane ----------
(continued)

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag
Holloman Table 2	SW8080	S	.0000395	.00003950	DET
Holloman Table 2	SW8080	S	.0001640	.00016400	DET
Holloman Table 2	SW8080	S	.	.00003528	ND

Data Source	Analytical Method	DL	Units	Lab Footnote
Holloman Table 2	SW8080	.000306	mg/kg	J
Holloman Table 2	SW8080	.000304	mg/kg	J
Holloman Table 2	SW8080	.000360	mg/kg	

N = 11

------ SWMUs Group=156 Method=Organics Analyte=trans-1,2-Dichloroethene -------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0028635	ND	.00333	mg/kg	
Holloman Table 2	SW8240	S	.00553	.0055300	DET	.00379	mg/kg	X
Holloman Table 2	SW8240	S	.	.0040282	ND	.00325	mg/kg	
Holloman Table 2	SW8240	S	.	.0019109	ND	.00330	mg/kg	
Holloman Table 2	SW8240	S	.	.0010093	ND	.00335	mg/kg	
Holloman Table 2	SW8240	S	.	.0026323	ND	.00326	mg/kg	
Holloman Table 2	SW8240	S	.	.0040332	ND	.00340	mg/kg	
Holloman Table 2	SW8240	S	.	.0028993	ND	.00338	mg/kg	
Holloman Table 2	SW8240	S	.	.0043449	ND	.00342	mg/kg	
Holloman Table 2	SW8240	S	.	.0042738	ND	.00339	mg/kg	
Holloman Table 2	SW8240	S	.	.0005779	ND	.00401	mg/kg	

N = 11

---------- SWMUs Group=56 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.410	0.410	DET	0.273	mg/kg	S
Holloman Table 2	SW7060	S	1.010	1.010	DET	0.289	mg/kg	
Holloman Table 2	SW7060	S	0.886	0.886	DET	0.260	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	44.1	44.1	DET	0.0549	mg/kg	
Holloman Table 2	SW6010	S	24.3	24.3	DET	0.0511	mg/kg	
Holloman Table 2	SW6010	S	84.6	84.6	DET	0.0554	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.2260	0.2260	DET	0.272	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.0362	-0.0362	DET	0.253	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1940	0.1940	DET	0.275	mg/kg	BJ

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	7.60	7.60	DET	0.259	mg/kg	B
Holloman Table 2	SW6010	S	4.85	4.85	DET	0.241	mg/kg	B
Holloman Table 2	SW6010	S	14.40	14.40	DET	0.261	mg/kg	B

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	4.01	4.01	DET	0.0949	mg/kg	S
Holloman Table 2	SW7421	S	1.19	1.19	DET	0.1010	mg/kg	SB
Holloman Table 2	SW7421	S	6.10	6.10	DET	0.1810	mg/kg	SB

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	0.01670	0.01670	DET	0.0160	mg/kg	
Holloman Table 2	SW7471	S	-0.00373	-0.00373	DET	0.0179	mg/kg	J
Holloman Table 2	SW7471	S	0.01560	0.01560	DET	0.0150	mg/kg	

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	0.642	0.642	DET	0.244	mg/kg	S
Holloman Table 2	SW7740	S	1.190	1.190	DET	0.259	mg/kg	S
Holloman Table 2	SW7740	S	2.340	2.340	DET	0.233	mg/kg	S

N = 3

---------- SWMUs Group=56 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.7680	-0.7680	DET	0.174	mg/kg	J
Holloman Table 2	SW6010	S	-0.0715	-0.0715	DET	0.162	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.6160	-0.6160	DET	0.175	mg/kg	BJ

N = 3

-------- SWMUs Group=56 Method=Organics Analyte=1,1,1-Trichloroethane --------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.62257	ND	0.00279	mg/kg	
Holloman Table 2	SW8240	S	.	0.69155	ND	0.00312	mg/kg	
Holloman Table 2	SW8240	S	.	0.75723	ND	0.00262	mg/kg	
Holloman Table 2	SW8240	S	0.953	0.95300	DET	0.01190	mg/kg	

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=1,1-Dichloroethane ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.000179	ND	0.00304	mg/kg	
Holloman Table 2	SW8240	S	0.0487	0.048700	DET	0.00341	mg/kg	
Holloman Table 2	SW8240	S	.	0.036700	ND	0.00285	mg/kg	
Holloman Table 2	SW8240	S	0.0672	0.067200	DET	0.01300	mg/kg	

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0266	0.0266	DET	0.0196	mg/kg	B
Holloman Table 2	SW8240	S	0.1290	0.1290	DET	0.0219	mg/kg	B
Holloman Table 2	SW8240	S	0.0361	0.0361	DET	0.0184	mg/kg	B
Holloman Table 2	SW8240	S	0.7330	0.7330	DET	0.0833	mg/kg	B

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=Benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0005733	ND	.00134	mg/kg	
Holloman Table 2	SW8240	S	.00194	.0019400	DET	.00150	mg/kg	
Holloman Table 2	SW8240	S	.	.0011853	ND	.00125	mg/kg	
Holloman Table 2	SW8240	S	.00613	.0061300	DET	.00569	mg/kg	

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=Carbon disulfide ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0052567	ND	0.00354	mg/kg	
Holloman Table 2	SW8240	S	.	.0029246	ND	0.00397	mg/kg	
Holloman Table 2	SW8240	S	.	.0035532	ND	0.00333	mg/kg	
Holloman Table 2	SW8240	S	.00539	.0053900	DET	0.01510	mg/kg	J

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=Ethyl benzene ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.15136	ND	.00128	mg/kg	
Holloman Table 2	SW8240	S	.	0.15573	ND	.00144	mg/kg	
Holloman Table 2	SW8240	S	.	0.02955	ND	.00120	mg/kg	
Holloman Table 2	SW8240	S	0.26	0.26000	DET	.00546	mg/kg	

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	408.00	408.00	DET	33.2	mg/kg	
Holloman Table 2	E418.1	S	-2.07	-2.07	DET	37.3	mg/kg	J
Holloman Table 2	E418.1	S	24.40	24.40	DET	31.1	mg/kg	J

N = 3

--------- SWMUs Group=56 Method=Drganics Analyte=Methyl ethyl ketone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.000450	ND	0.00942	mg/kg	
Holloman Table 2	SW8240	S	0.00672	0.006720	DET	0.01050	mg/kg	J
Holloman Table 2	SW8240	S	.	0.006241	ND	0.00884	mg/kg	
Holloman Table 2	SW8240	S	0.04590	0.045900	DET	0.04010	mg/kg	

N = 4

---------- SWMUs Group=56 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00169	0.00169	DET	0.00278	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01130	0.01130	DET	0.00311	mg/kg	
Holloman Table 2	SW8240	S	0.01050	0.01050	DET	0.00261	mg/kg	
Holloman Table 2	SW8240	S	0.03490	0.03490	DET	0.01180	mg/kg	

N = 4

--- SWMUs Group=56 Method=Organics Analyte=Toluene ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.01572	ND	0.00265	mg/kg	
Holloman Table 2	SW8240	S	.	0.13356	ND	0.00296	mg/kg	
Holloman Table 2	SW8240	S	.	0.13558	ND	0.00248	mg/kg	
Holloman Table 2	SW8240	S	0.156	0.15600	DET	0.01130	mg/kg	

N = 4

--- SWMUs Group=56 Method=Organics Analyte=Xylene (total) ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	0.26050	ND	0.00595	mg/kg	
Holloman Table 2	SW8240	S	.	0.16563	ND	0.00666	mg/kg	
Holloman Table 2	SW8240	S	.	0.93258	ND	0.00559	mg/kg	
Holloman Table 2	SW8240	S	0.992	0.99200	DET	0.02530	mg/kg	

N = 4

--- SWMUs Group=63 Method=Inorganics Analyte=Arsenic ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	4.36	4.36	DET	0.311	mg/kg	

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Barium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	55.3	55.3	DET	0.047	mg/kg	B

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Cadmium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0495	0.0495	DET	0.233	mg/kg	BJ

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Chromium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	8.75	8.75	DET	0.222	mg/kg	B

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Lead ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	5.13	5.13	DET	0.183	mg/kg	S

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Mercury ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.016	-0.016	DET	0.0154	mg/kg	J

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Selenium ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	0.759	0.759	DET	0.235	mg/kg	S

N = 1

--- SWMUs Group=63 Method=Inorganics Analyte=Silver ---

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.758	-0.758	DET	0.148	mg/kg	BJ

N = 1

---------- SWMUs Group=63 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.0208	0.0208	DET	0.0308	mg/kg	BJ

N = 1

---------- SWMUs Group=71 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	0.44300	0.44300	DET	0.327	mg/kg	S
Holloman Table 2	SW7060	S	0.00256	0.00256	DET	0.203	mg/kg	SJ

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	33.8	33.8	DET	0.0496	mg/kg	
Holloman Table 2	SW6010	S	41.7	41.7	DET	0.0477	mg/kg	

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0266	0.0266	DET	0.246	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1600	0.1600	DET	0.237	mg/kg	BJ

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	4.26	4.26	DET	0.234	mg/kg	B
Holloman Table 2	SW6010	S	9.60	9.60	DET	0.225	mg/kg	B

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	25.10	25.10	DET	1.6500	mg/kg	SB
Holloman Table 2	SW7421	S	1.47	1.47	DET	0.0511	mg/kg	SB

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.01560	-0.01560	DET	0.0150	mg/kg	J
Holloman Table 2	SW7471	S	-0.00949	-0.00949	DET	0.0152	mg/kg	J

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.09	2.09	DET	0.292	mg/kg	S
Holloman Table 2	SW7740	S	2.51	2.51	DET	0.181	mg/kg	SB

N = 2

---------- SWMUs Group=71 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0874	0.0874	DET	0.157	mg/kg	BJ
Holloman Table 2	SW6010	S	-0.5350	-0.5350	DET	0.151	mg/kg	BJ

N = 2

---------- SWMUs Group=71 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.00827	0.00827	DET	0.0305	mg/kg	BJ
Holloman Table 2	SW8240	S	0.01090	0.01090	DET	0.0309	mg/kg	BJ

N = 2

---------- SWMUs Group=71 Method=Organics Analyte=Ethanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	2.46	2.46	DET	6.29	mg/kg	KJ
Holloman Table 2	SW8015	S	2.19	2.19	DET	6.44	mg/kg	KJ

N = 2

---------- SWMUs Group=71 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	-5.08	-5.08	DET	31.3	mg/kg	J
Holloman Table 2	E418.1	S	3.47	3.47	DET	31.7	mg/kg	BJ

N = 2

---------- SWMUs Group=71 Method=Organics Analyte=Isopropanol ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8015	S	1.44	1.44	DET	3.27	mg/kg	KJ
Holloman Table 2	SW8015	S	1.45	1.45	DET	3.35	mg/kg	KJ

N = 2

---------- SWMUs Group=71 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	.	.0053540	ND	.00171	mg/kg	
Holloman Table 2	SW8240	S	.00554	.0055400	DET	.00173	mg/kg	

N = 2

---------- SWMUs Group=78 Method=Inorganics Analyte=Arsenic ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7060	S	3.05	3.05	DET	0.401	mg/kg	
Holloman Table 2	SW7060	S	3.95	3.95	DET	0.317	mg/kg	
Holloman Table 2	SW7060	S	4.03	4.03	DET	0.376	mg/kg	
Holloman Table 2	SW7060	S	3.46	3.46	DET	0.363	mg/kg	

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Barium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	40.4	40.4	DET	0.0620	mg/kg	B
Holloman Table 2	SW6010	S	20.7	20.7	DET	0.0614	mg/kg	B
Holloman Table 2	SW6010	S	34.5	34.5	DET	0.0473	mg/kg	B
Holloman Table 2	SW6010	S	26.6	26.6	DET	0.0479	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Cadmium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	0.0942	0.0942	DET	0.307	mg/kg	BJ
Holloman Table 2	SW6010	S	0.1320	0.1320	DET	0.305	mg/kg	BJ
Holloman Table 2	SW6010	S	0.3000	0.3000	DET	0.235	mg/kg	B
Holloman Table 2	SW6010	S	-0.0174	-0.0174	DET	0.237	mg/kg	BJ

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Chromium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	5.33	5.33	DET	0.292	mg/kg	B
Holloman Table 2	SW6010	S	3.37	3.37	DET	0.290	mg/kg	B
Holloman Table 2	SW6010	S	3.94	3.94	DET	0.223	mg/kg	B
Holloman Table 2	SW6010	S	4.76	4.76	DET	0.226	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Lead ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7421	S	2.04	2.04	DET	0.0860	mg/kg	SB
Holloman Table 2	SW7421	S	1.29	1.29	DET	0.0680	mg/kg	SB
Holloman Table 2	SW7421	S	14.30	14.30	DET	0.0794	mg/kg	SB
Holloman Table 2	SW7421	S	1.54	1.54	DET	0.1070	mg/kg	SB

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Mercury ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7471	S	-0.01410	-0.01410	DET	0.0169	mg/kg	J
Holloman Table 2	SW7471	S	-0.02860	-0.02860	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	0.00000	0.00000	DET	0.0171	mg/kg	J
Holloman Table 2	SW7471	S	-0.00725	-0.00725	DET	0.0174	mg/kg	J

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Selenium ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW7740	S	2.43	2.43	DET	0.304	mg/kg	
Holloman Table 2	SW7740	S	1.63	1.63	DET	0.241	mg/kg	
Holloman Table 2	SW7740	S	2.31	2.31	DET	0.282	mg/kg	
Holloman Table 2	SW7740	S	3.62	3.62	DET	0.274	mg/kg	

N = 4

---------- SWMUs Group=78 Method=Inorganics Analyte=Silver ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW6010	S	-0.9270	-0.9270	DET	0.196	mg/kg	J
Holloman Table 2	SW6010	S	-0.3190	-0.3190	DET	0.194	mg/kg	J
Holloman Table 2	SW6010	S	-0.0589	-0.0589	DET	0.150	mg/kg	J
Holloman Table 2	SW6010	S	0.1240	0.1240	DET	0.151	mg/kg	BJ

N = 4

---------- SWMUs Group=78 Method=Organics Analyte=Acetone ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.05970	0.05970	DET	.00854	mg/kg	B
Holloman Table 2	SW8240	S	0.00752	0.00752	DET	.00180	mg/kg	B
Holloman Table 2	SW8240	S	0.03770	0.03770	DET	.00182	mg/kg	B
Holloman Table 2	SW8240	S	0.01810	0.01810	DET	.00181	mg/kg	B

N = 4

---------- SWMUs Group=78 Method=Organics Analyte=Hydrocarbons ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	E418.1	S	22.80	22.80	DET	35.3	mg/kg	BJ
Holloman Table 2	E418.1	S	7.75	7.75	DET	35.8	mg/kg	BJ
Holloman Table 2	E418.1	S	7.79	7.79	DET	36.0	mg/kg	BJ
Holloman Table 2	E418.1	S	7.83	7.83	DET	36.2	mg/kg	BJ

N = 4

---------- SWMUs Group=78 Method=Organics Analyte=Methylene Chloride ----------

Data Source	Analytical Method	Lab Matrix	Result	Est. Conc	Flag	DL	Units	Lab Footnote
Holloman Table 2	SW8240	S	0.01380	0.013800	DET	0.01490	mg/kg	J
Holloman Table 2	SW8240	S	0.00432	0.004320	DET	0.00313	mg/kg	
Holloman Table 2	SW8240	S	.	0.001574	ND	0.00317	mg/kg	
Holloman Table 2	SW8240	S	.	0.002745	ND	0.00314	mg/kg	

N = 4

ATTACHMENT C-2

Air Emissions Methodology

1.0 INTRODUCTION

Emission rates of chemical compounds due to volatilization and wind entrainment of contaminated dust were determined for a number of sites at the Holloman Air Force Base (AFB). Emissions from sites 16, 36, 47, and the 1080 Pond were estimated using predictive equations as recommended by the U.S. Environmental Protection Agency (EPA). The emission rates were then input into EPA-approved air quality dispersion models to estimate the average chemical concentrations in the atmosphere at on-site, residential, recreational, occupational, and offsite receptor locations. The predicted concentrations were then used to estimate health risks to the exposed populations. This appendix presents the methodology used to calculate the emissions and perform the dispersion modeling. The methodology is similar to that previously used for Holloman risk assessment modeling. Section 2 presents the emission estimation procedures and Section 3 presents the air quality dispersion modeling analyses.

2.0 EMISSION ESTIMATES

Emission rates of detected chemicals from each Holloman AFB site were calculated using emission rate equations applicable to various emission mechanisms. The various types of mechanisms considered included:

- Volatilization of organic compounds from near-surface soil contamination (contamination found between 0 and 2 feet below the soil surface);
- Volatilization of organic compounds from wastes buried below the soil surface (contamination found below the 2 foot depth): and
- Wind entrainment of contaminated surface soil (surface contamination: 0-2 feet).

In accordance with guidance provided in the EPA document, "Risk Assessment Guidance for Superfund: Volume 1" (EPA, 1989), all chemicals with Henry's Law constants of 1×10^{-5} atm-m^3/mole or greater and molecular weights of 200 g/mole, were considered volatile. these compounds were evaluated for the various volatilization emission mechanisms.

The remaining compounds were considered to be non-volatile and were evaluated for the various entrained dust emission mechanisms.

2.1 Volatilization from Surface Contamination

For the estimation of emission rates due to volatilization from open landfills, i.e., open dump, Shen (1981) suggests using Arnold's equation (Arnold, 1944) with Ziegler's modification (Ziegler, 1979). This equation was determined to be the most applicable equation to estimate emissions of volatile compounds detected at or near the surface (0-2 feet) of the sites in the study. The equation, shown below, was used to calculate the emissions of surface detected volatiles at sites 16, 36, 47, and Pond 1080.

$$E_i = \frac{2C_e w}{A}\sqrt{\left(\frac{DLv}{\pi F_v}\right)}\left(\frac{W_i}{W}\right)P_i$$

where:

E_i = emission rate (g/m^2-sec)
C_e = equilibrium vapor pressure (fraction)
L = length of open dump (cms)
D = diffusion coefficient (cm^2/sec)
v = wind speed (cms/sec)
F_v = correction factor = C_e (-0.848) + 1.0635
W_i/W = weight % of component i in bulk waste (g/g)
w = width of open dump (cms)
A = area of open dump (m^2)
P_i = gas density of component i

The annual average wind speed (v) for the Holloman AFB area used in the above equation is 2.57 m/sec. The weight fraction (W_i/W) of each volatile compound used in the above equation was the average concentration measured at the site. Contaminants detected between 0 and 2 feet below the soil surface were considered as surface contaminants. All

other input parameters are either site-specific and based on site characteristics or compound-specific and based upon values found in the literature.

The physical properties of each site are listed in Table C2-1. The chemical properties and average concentrations of the volatile compounds at each site are shown in Table C2-2.

2.2 Volatilization of Buried Waste

The Shen equation (Shen, 1981) was used to estimate emissions from buried wastes, defined as soil contamination below a depth of 2 feet. Contamination below that level was found at all four sites. The Shen equation was derived from Fick's Law for steady-state diffusion and is given as:

$$E_i = D_i C_s A P_t^{\frac{4}{3}} \frac{W_i}{L}$$

where:
- E_i = emission rate (g/sec)
- D_i = diffusion coefficient (cm^2/sec);
- C_s = saturation vapor concentration of component i (g/cm^3)
- A = area of open dump (cm^2)
- P_t = soil porosity (dimensionless)
- W_i = weight % of component i in bulk waste (g/g)
- L = effective depth of soil cover (cms)

Soil porosity was based upon field tests at each site. The value used for each site was the average of all sample results for that site. This value was assumed to be constant over the entire depth of contamination. The weight percent (W_i) of each volatile compound used in the above equation was the average concentration measured at the site.

A minimum depth of cover (L) of 2 feet was assumed for al buried wastes, since contamination detected between 0 and 2 feet was considered surface contamination. The

emission characterisitcs due to volatilization from buried wastes are shown in Table C2-3.

2.3 Wind Blown Dust

Non-volatile organics and metals can enter the atmosphere due to wind entrainment of contaminated surface soil. This mechanism was evaluated for all sites. The wind-blown dust equation (Bohn, et al, 1978), shown below, was used to calculate the total dust emissions.

$$E = 3400 \frac{\frac{e}{50} \times \frac{s}{15} \times \frac{f}{25}}{\left(\frac{P-E}{50}\right)^2} \times (1 - VC)$$

where:
- E = emission rate (lb/acre-yr)
- e = surface erodibility
- s = silt content
- f = percentage of time wind exceeds 12 mph (12%)
- P-E = Thornthwaite's Precipitation-Evaporation Index (19 for Holloman AFB area)
- VC = vegetative cover (fraction)

The emission rate of each non-volatile chemical was then calculated by multiplying the dust emission rate by the average measured concentration of the chemical in the surface soil (0-2 ft). The surface erodibility was determine for each site and was defined as the percentage of soil particles not passing a No. 10 sieve. The silt content, determined for each site, was based on the percentage of soil particles passing a NO. 200 sieve. The vegetative cover for each site was determined by visual inspection. The emission characteristics of each chemical associated with wind-blown dust is shown in Table C2-3.

3.0 MODELING METHODOLOGY

The dispersion modeling was performed in accordance with guidance provided int eh

EPA document Guideline on Air Quality Models (Revised). Two modeling approaches were employed to predict air pathway transport of contaminants and the resulting ambient concentrations. The two models used were the simplistic box model and the Industrial Source Complex Long-Term (ISCLT) dispersion model (version 93109).

3.1 Box Model

To assess potential pollutant concentrations within the area sources (on-site receptors) the box model was used. The box model conservatively predicts concentrations of both volitized and wind-blown material which may affect on-site workers. Model assumptions equate the flux of material with the pollutant specific emission factor, the dimensions of the site, and the average wind speed. This approach is consistent with that presented in Risk Assessment Guidance for Superfund (EPA, 1989). The governing equation can be written as:

$$\text{Conc} = \frac{EF \times A}{V \times DH \times LS}$$

where:
- EF = the pollutant specific emission factor (g/m^2)
- A = the area of the site (m^2)
- V = the average wind speed (2.57 m/sec)
- DH = height of the box = 2 m
- LS = length of the box (m)

The box model was used to predict on-site concentrations at all four sites investigated.

3.2 ISCLT Model

Because of the need to predict the potential pollutant concentrations at receptors located beyond the areas of contamination, the ISCLT model was used. The ISCLT model was used in previous risk assessment modeling for the Holloman Air Force Base. The model is a

steady-state Gaussian plume model which calculates ground-level concentrations for an annual averaging period from different types of sources, including area sources. The regulatory default options were selected in this analysis to provide conservative assessments of the potential concentrations. The options included rural dispersion coefficients, flat terrain, and an infinite pollutant half-life.

Meteorological data used in this analysis were collected at Holloman during the period 1949-1970. The surface observations were summarized into a statistical array consisting of the twenty-year composite annual frequency distribution of wind speed, wind direction, and stability class. The same meteorological data set was used in the previous modeling analyses for Holloman.

3.3 Receptor Locations

Concentrations of potentially emitted pollutants were calculated at receptor locations defined for each specific model; the box-model and ISCLT model. The receptors for the box model were located "on-site". Receptors were used in the ISCLT model to determine potential transport of emitted contaminants. The receptors were placed as follows:

Site 16:	Residential receptors were placed at every 100 meters over the entire base residential area to identify the location of the maximum potential concentration of each emitted contaminant. These receptors were used to calculate both current emissions (i.e., surface based contaminant sources) and future (i.e, sub-surface contaminant sources). On-site receptors were also used.
Site 36:	Receptors were placed at the playground and at each building near the stables. On-site receptors were also used. Both current and future emissions scenarios were examined.
Site 47:	The same residential receptor grid used for Site 16 was used for Site 47 to identify the location of the maximum potential concentration of each emitted contaminant. Occupational receptors closest to the site were modeled to determine potential effects upon workers. Both current and future concentration scenarios were examined. On-site receptors were used.

Pond 1080: Two distant sites were modeled (Sites 126 and 127) to determine concentrations at each as well as nearby occupational receptors. Maximum concentrations were determined for both current and future scenarios. On-site concentrations from the pond area were also determined.

3.4 Emission Source Characteristics and Modeled Results

All of the emission sites were modeled as area sources. The ISCLT model requires square, area sources oriented true north-south. Each site was therefore modeled as a number of square areas equivalent to the areal extent of the source.

Each source was modeled at a unit emission rate (1 g/m^2-sec). The maximum ground-level calculated concentration was then multiplied by the contaminant specific emission rate as calculated using the equations in the previous section. Emission rates for each contaminant and site are given in Table C2-4. Predicted specific receptor and maximum contaminant concentrations for each site are shown in Table C2-5.

Table C2-1. Site Characterisitics

Site ID	Area (m_2)	Vegetative Cover (%)	Porosity	Erodibility	Silt Content (%)	Length (m)	Width (m)
16	19.7	0	0.395	250	63.3	4.4	4.4
36	8114	30	0.4	180	30	90.0	90.0
47	256	0	0.4	100	10	16.0	16.0
1080	3468	10	0.4	200	50	58.9	58.9

Table C2-2. Emissions Characterisitcs for Volatile Contaminants

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
16	Organics	Acetone	V	58.08	266	0.109	0	2	0.382
16	Organics	Methylene Chloride	V	85	414.59	0.09099	0	2	0.015
16	Organics	Toluene	V	92	36.52	0.08301	0	2	0.003
16	Organics	Acetone	V	58.08	266	0.109	2	4	0.342
16	Organics	Carbon disulfide	V	76.13	298	8.92e-02	2	4	0.015
16	Organics	Chloromethane	V	50.49	760	0.11827	2	4	0.018
16	Organics	Dichloroprop	V	113	65.73	0.08473	2	4	0.061
16	Organics	Ethyl benzene	V	116	12.55	0.0707	2	4	0.007
16	Organics	Fluorene	V	166.22	0.013	5.45e-02	2	4	2.768
16	Organics	Methyl ethyl ketone	V	72	123.78	0.09485	2	4	0.163
16	Organics	Methylene Chloride	V	85	414.59	0.09099	2	4	0.082
16	Organics	Phenanthrene	V	178	0.001	0.054	2	4	4.004
16	Organics	Toluene	V	92	36.52	0.08301	2	4	0.003
16	Organics	Xylene (total)	V	106	11.6	0.07597	2	4	0.041
36	Organics	Aniline	V	93.1	1	0.07	0	2	0.035
36	Organics	Benzene	V	78	118.74	0.0923	0	2	0.000
36	Organics	Ethyl benzene	V	116	12.55	0.0707	0	2	0.001
36	Organics	Phenanthrene	V	178	0.001	0.054	0	2	0.015
36	Organics	Toluene	V	92	36.52	0.08301	0	2	0.002
36	Organics	Trichloroethene	V	131	94.03	0.08606	0	2	0.002
36	Organics	Acetone	V	58.08	266	0.109	2	4	0.531
36	Organics	Methylene Chloride	V	85	414.59	0.09099	2	4	0.045

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
47	Organics	2-Methylnaphthalene	V	142	0.042	0.061	0	2	0.143
47	Organics	Methylene Chloride	V	85	414.59		0	2	0.002
47	Organics	Naphthalene	V	128	0.2	0.0724	0	2	0.068
47	Organics	Phenanthrene	V	178	0.001	0.054	0	2	0.043
47	Organics	1,1-Dichloroethene	V	96.94	591	0.094	2	4	0.493
47	Organics	Benzene	V	78	118.74	0.0923	2	4	2.178
47	Organics	2-Hexanone	V	100.16	30	0.6	2	4	0.002
47	Organics	2-Methylnaphthalene	V	142	0.042	0.061	2	4	0.960
47	Organics	4-Methyl-2-Pentanone(MIBK)	V	100.2	15.7	0.075	2	4	0.001
47	Organics	Acetone	V	58.08	266	0.109	2	4	0.066
47	Organics	Carbon disulfide	V	76.13	298	8.92e-02	2	4	0.007
47	Organics	Ethyl benzene	V	116	12.55	0.0707	2	4	10.831
47	Organics	Methylene Chloride	V	85	414.59	0.09099	2	4	0.002
47	Organics	Naphthalene	V	128	0.2	0.0724	2	4	0.232
47	Organics	Toluene	V	92	36.52	0.08301	2	4	10.969
47	Organics	Trichloroethene	V	131	94.03	0.08606	2	4	0.001
47	Organics	Xylene (total)	V	106	11.6	0.07597	2	4	12.921
1080	Organics	1,1-Dichloroethene	V	96.94	591	0.094	0	2	0.469
1080	Organics	Benzene	V	78	118.74	0.0923	0	2	0.185
1080	Organics	Ethyl benzene	V	116	12.55	0.0707	0	2	21.781
1080	Organics	Toluene	V	92	36.52	0.08301	0	2	16.402
1080	Organics	Xylene (total)	V	106	11.6	0.07597	0	2	42.203
1080	Organics	Toluene	V	92	36.52	0.08301	2	4	0.001

Table C2-3. Emission Characteristics for Non-Volatile Contaminants

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
16	Organics	Heptachlor epoxide	N				0	2	0.193
16	Organics	PCB-1260	N				0	2	0.140
16	Organics	2,4,5-T	N	255.48	0.000006		0	2	0.011
16	Organics	2,4,5-TP (Silvex)	N	269.53			0	2	0.008
16	Organics	4,4'-DDD	N				0	2	0.005
16	Organics	4,4'-DDT	N				0	2	0.006
16	Organics	Aldrin	N				0	2	0.005
16	Organics	Chlorpyrifos (Dursban)	N	350.57			0	2	0.531
16	Organics	Coumaphos	N				0	2	0.002
16	Organics	Diazinon	N	304.36			0	2	0.078
16	Organics	Dichlorvos	N	220.98			0	2	0.049
16	Organics	Dieldrin	N				0	2	0.005
16	Organics	Dinoseb	N				0	2	0.016
16	Organics	Endrin	N				0	2	0.004
16	Organics	Endrin Aldehyde	N				0	2	0.002
16	Organics	Fenthion	N	278.33			0	2	0.012
16	Organics	Hydrocarbons	N				0	2	36.217
16	Organics	MCPA	N				0	2	17.750
16	Organics	Merphos B	N				0	2	0.006
16	Organics	Methyl azinphos	N				0	2	0.127
16	Organics	Methyl parathion	N				0	2	0.001
16	Organics	Mevinphos	N	224.15			0	2	0.004

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
16	Organics	Sulprofos (Bolstar)	N	322.45			0	2	0.002
16	Organics	alpha-BHC	N				0	2	0.003
16	Organics	delta-BHC	N				0	2	0.007
16	Organics	gamma-BHC	N				0	2	0.004
16	Organics	PCB-1260	N				2	4	0.523
16	Organics	2,4,5-TP (Silvex)	N	269.53			2	4	0.003
16	Organics	2,4-D	N				2	4	0.040
16	Organics	4,4'-DDD	N				2	4	0.003
16	Organics	4,4'-DDE	N				2	4	0.001
16	Organics	4,4'-DDT	N				2	4	0.007
16	Organics	Aldrin	N				2	4	0.005
16	Organics	Chlorpyrifos (Dursban)	N	350.57			2	4	0.458
16	Organics	Chrysene	N	228.29	6.30e-09	4.60e-02	2	4	0.056
16	Organics	Diazinon	N	304.36			2	4	0.007
16	Organics	Dicamba	N				2	4	0.003
16	Organics	Dieldrin	N				2	4	0.000
16	Organics	Endosulfan I	N	406.95	0.00001		2	4	0.000
16	Organics	Endosulfan II	N				2	4	0.005
16	Organics	Endrin	N				2	4	0.018
16	Organics	Endrin Aldehyde	N				2	4	0.008
16	Organics	Fenthion	N	278.33			2	4	0.003
16	Organics	Fluoranthene	N	202.26	0.000005	4.90e-02	2	4	0.037
16	Organics	Heptachlor	N				2	4	0.000
16	Organics	Heptachlor epoxide	N				2	4	0.001

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
16	Organics	Hydrocarbons	N				2	4	1999.631
16	Organics	MCPA	N				2	4	5.145
16	Organics	Merphos B	N				2	4	0.002
16	Organics	Methoxychlor	N	345.65			2	4	0.016
16	Organics	Methyl azinphos	N				2	4	0.039
16	Organics	Mevinphos	N	224.15			2	4	0.003
16	Organics	Naled	N	380.84			2	4	0.007
16	Organics	Phorate	N	260.4			2	4	0.006
16	Organics	Pyrene	N	202.26		5.10e-02	2	4	0.238
16	Organics	Sulprofos (Bolstar)	N	322.45			2	4	0.001
16	Organics	alpha-BHC	N				2	4	0.001
16	Organics	delta-BHC	N				2	4	0.007
16	Organics	gamma-BHC	N				2	4	0.001
36	Organics	Benzo(a)pyrene	N	252.32	5.00e-09	0.046	0	2	0.015
36	Metals	Lead	N				0	2	67.399
36	Organics	Anthracene	N	178.23	0.000195	0.054	0	2	0.005
36	Organics	Benzo(a)anthracene	N	228.29	5.00e-09	4.60e-02	0	2	0.016
36	Organics	Benzo(b)fluoranthene	N				0	2	0.028
36	Organics	Benzo(g,h,i)perylene	N	276.34	1.00e-10		0	2	0.022
36	Organics	Benzo(k)fluoranthene	N				0	2	0.029
36	Organics	Chrysene	N	228.29	6.30e-09	4.60e-02	0	2	0.021
36	Organics	Dibutylphthalate	N	278.35	0.00001	4.20e-02	0	2	0.018
36	Organics	Fluoranthene	N	202.26	0.000005	4.90e-02	0	2	0.024
36	Organics	Hydrocarbons	N				0	2	158.113

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
36	Organics	Indeno(1,2,3-cd)pyrene	N	276.34	1.00e-10	4.40e-02	0	2	0.013
36	Organics	Pyrene	N	202.26		5.10e-02	0	2	0.023
36	Metals	Lead	N				2	4	3.920
36	Organics	Hydrocarbons	N				2	4	3.031
47	Metals	Arsenic	N				0	2	3.125
47	Metals	Barium	N				0	2	61.700
47	Metals	Cadmium	N				0	2	1.031
47	Metals	Chromium	N				0	2	16.213
47	Metals	Lead	N				0	2	95.930
47	Metals	Selenium	N				0	2	1.664
47	Organics	Benzo(a)anthracene	N	228.29	5.00e-09	4.60e-02	0	2	0.049
47	Organics	Chrysene	N	228.29	6.30e-09	4.60e-02	0	2	0.050
47	Organics	Hydrocarbons	N				0	2	1180.618
47	Organics	Pyrene	N	202.26		5.10e-02	0	2	0.027
47	Metals	Arsenic	N				2	4	2.016
47	Metals	Cadmium	N				2	4	0.167
47	Metals	Chromium	N				2	4	7.413
47	Metals	Mercury	N				2	4	0.005
47	Metals	Selenium	N				2	4	2.318
47	Organics	Dibenzofuran	N	168.19	0.00006	6.50e-02	2	4	0.236
1080	Metals	Arsenic	N				0	2	1.511
1080	Metals	Cadmium	N				0	2	0.020
1080	Metals	Chromium	N				0	2	5.555
1080	Metals	Lead	N				0	2	6.354

Site ID	Type	Chemicals	Volatile	MW	VP	Diff.Coeff	Top (ft)	Bottom (ft)	Site Average Concentration (mg/kg)
1080	Metals	Selenium	N				0	2	2.360
1080	Metals	Arsenic	N				2	4	0.760
1080	Metals	Barium	N				2	4	61.700
1080	Metals	Cadmium	N				2	4	0.039
1080	Metals	Chromium	N				2	4	9.820
1080	Metals	Lead	N				2	4	4.690
1080	Metals	Selenium	N				2	4	1.149

Table C2-4. Emission Rates by Site and Compound

Site ID	Compound	Emission Rate (g/m^2-sec)			
		Surface		Sub-surface	
		Volatile	Non-volatile	Volatile	Non-volatile
16	PCB-1260	0	1.2e-10	0	4.4e-10
16	2,4,5-T	0	9.4e-12	–	–
16	2,4,5-TP (Silvex)	0	7.0e-12	0	2.1e-12
16	2,4-D	–	–	0	3.4e-11
16	4,4'-DDD	0	4.3e-12	0	2.3e-12
16	4,4'-DDE	–	–	0	1.1e-12
16	4,4'-DDT	0	5.4e-12	0	6.3e-12
16	Acetone	1.01e-12	0	8.7e-14	0
16	Aldrin	0	4.1e-12	0	4.4e-12
16	Carbon disulfide	–	–	4.7e-15	0
16	Chloromethane	–	–	1.2e-14	0
16	Chlorpyrifos (Dursban)	0	4.5e-10	0	3.9e-10
16	Chrysene	–	–	0	4.7e-11
16	Coumaphos	0	2.0e-12	–	–
16	Diazinon	0	6.6e-11	0	6.3e-12
16	Dicamba	–	–	0	2.9e-12
16	Dichloroprop	–	–	5.8e-15	0
16	Dichlorvos	0	4.1e-11	–	–
16	Dieldrin	0	4.1e-12	0	2.8e-13
16	Dinoseb	0	1.3e-11	–	–
16	Endosulfan I	–	–	0	2.3e-13
16	Endosulfan II	–	–	0	4.4e-12
16	Endrin	0	3.7e-12	0	1.6e-11
16	Endrin Aldehyde	0	2.1e-12	0	6.7e-12
16	Ethyl benzene	–	–	1.0e-16	0
16	Fenthion	0	1.1e-11	0	2.3e-12
16	Fluoranthene	–	–	0	3.2e-11
16	Fluorene	–	–	4.9e-17	0
16	Heptachlor	–	–	0	1.7e-13

Site ID	Compound	Emission Rate (g/m^2-sec)			
		Surface		Sub-surface	
		Volatile	Non-volatile	Volatile	Non-volatile
16	Heptachlor epoxide	0	1.6e-10	0	1.1e-12
16	Hydrocarbons	0	3.1e-08	0	1.7e-06
16	MCPA	0	1.5e-08	0	4.4e-09
16	Merphos B	0	5.1e-12	0	1.7e-12
16	Methoxychlor	–	–	0	1.3e-11
16	Methyl azinphos	0	1.1e-10	0	3.3e-11
16	Methyl ethyl ketone	–	–	2.1e-14	0
16	Methyl parathion	0	1.3e-12	–	–
16	Methylene Chloride	9.07e-14	0	4.0e-14	0
16	Mevinphos	0	3.4e-12	0	2.4e-12
16	Naled	–	–	0	6.2e-12
16	Phenanthrene	–	–	5.8e-18	0
16	Phorate	–	–	0	5.0e-12
16	Pyrene	–	–	0	2.0e-10
16	Sulprofos (Bolstar)	0	1.6e-12	0	1.1e-12
16	Toluene	1.10e-15	0	1.4e-16	0
16	Xylene (total)	–	–	5.8e-16	0
16	alpha-BHC	0	2.3e-12	0	6.3e-13
16	delta-BHC	0	6.3e-12	0	5.9e-12
16	gamma-BHC	0	3.1e-12	0	5.0e-13
36	Benzo(a)pyrene	0	3.0e-12		
36	Lead	0	1.4e-8	0	7.9e-10
36	Acetone	–	–	5.6e-11	0
36	Aniline	3.8e-16	0	–	–
36	Anthracene	0	9.5e-13	–	–
36	Benzene	5.5e-16	0	–	–
36	Benzo(a)anthracene	0	3.3e-12	–	–
36	Benzo(b)fluoranthene	0	5.6e-12	–	–
36	Benzo(g,h,i)perylene	0	4.4e-12	–	–
36	Benzo(k)fluoranthene	0	5.8e-12	–	–

Site ID	Compound	Emission Rate (g/m²-sec)			
		Surface		Sub-surface	
		Volatile	Non-volatile	Volatile	Non-volatile
36	Chrysene	0	4.2e-12	–	–
36	Dibutylphthalate	0	3.5e-12	–	–
36	Ethyl benzene	1.2e-16	0	–	–
36	Fluoranthene	0	4.7e-12	–	–
36	Hydrocarbons	0	3.2e-8	0	6.1e-10
36	Indeno(1,2,3-cd)pyrene	0	2.5e-12	–	–
36	Methylene Chloride	–	–	9.2e-12	0
36	Phenanthrene	2.8e-19	0	–	–
36	Pyrene	0	4.7e-12	–	–
36	Toluene	6.6e-16	0	–	–
36	Trichloroethene	2.5e-15	0	–	–
47	1,1-Dichloroethene	–	–	5.3e-12	0
47	Benzene	–	–	3.7e-12	0
47	Arsenic	0	1.7e-10	0	1.1e-10
47	Barium	0	3.3e-9	–	–
47	Cadmium	0	5.5e-11	0	8.9e-12
47	Chromium	0	8.7e-10	0	4.0e-10
47	Lead	0	5.1e-9	–	–
47	Mercury	–	–	0	2.7e-13
47	Selenium	0	8.9e-11	0	1.2e-10
47	2-Hexanone	–	–	7.8e-15	0
47	2-Methylnaphthalene	9.3e-7	0	6.9e-16	0
47	4-Methyl-2-Pentanone(MIBK)	–	–	3.2e-16	0
47	Acetone	–	–	2.2e-13	0
47	Benzo(a)anthracene	0	2.6e-12	–	–
47	Carbon disulfide	–	–	2.6e-14	0
47	Chrysene	0	2.7e-12	–	–
47	Dibenzofuran	–	–	0	1.3e-11
47	Ethyl benzene	–	–	2.2e-12	0
47	Hydrocarbons	0	6.3e-8	0	1.7e-8

Site ID	Compound	Emission Rate (g/m^2-sec)			
		Surface		Sub-surface	
		Volatile	Non-volatile	Volatile	Non-volatile
47	Methylene Chloride	1.1e-14	0	1.3e-14	0
47	Naphthalene	2.1e-16	0	8.5e-16	0
47	Phenanthrene	7.8e-19	0	–	–
47	Pyrene	0	1.5e-12	–	–
47	Toluene	–	–	6.1e-12	0
47	Trichloroethene	–	–	2.9e-15	0
47	Xylene (total)	–	–	2.4e-12	0
1080	Arsenic	0	7.3e-10	0	3.7e-10
1080	Barium	–	–	0	3.0e-08
1080	Cadmium	0	9.8e-12	0	1.9e-11
1080	Chromium	0	2.7e-09	0	4.7e-09
1080	Lead	0	3.1e-09	0	2.3e-09
1080	Selenium	0	1.1e-09	0	5.5e-10
1080	1,1-Dichloroethene	5.9e-12	0	–	–
1080	Benzene	2.5e-13	0	–	–
1080	Ethyl benzene	3.7e-12	0	–	–
1080	Toluene	7.1e-12	0	2.9e-17	0
1080	Xylene (total)	6.3e-12	0	–	–

Table C2-5. Modeled Concentrations by Site, Receptor, and Pollutant

Site ID	Compound	Concentrations (g/m³)																	
		Modeled Scenario Receptor Locations																	
Modeled Scenario/Receptor Location		Current On-Site		Current Residential		Future On-Site		Future Residential		Current On-Site		Current On-Site							
16		Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL						
16	PCB-1260	8.92e-05	1.96e-04	9.07e-07	1.99e-06	3.33e-04	8.02e-04	3.39e-06	8.15e-06	3.33e-04	8.02e-04	3.39e-06	8.15e-06						
16	2,4,5-T	7.08e-06	7.48e-06	7.19e-08	7.60e-08					7.08e-06	7.48e-06	7.19e-08	7.60e-08						
16	2,4,5-TP (Silvex)	5.30e-06	9.67e-06	5.39e-08	9.83e-08	1.61e-06	3.21e-06	1.64e-08	3.26e-08	5.30e-06	9.67e-06	5.39e-08	9.83e-08						
16	2,4-D					2.55e-05	3.54e-05	2.59e-07	3.60e-07	2.55e-05	3.54e-05	2.59e-07	3.60e-07						
16	4,4'-DDD	3.23e-06	2.15e-05	3.28e-08	2.18e-07	1.76e-06	2.87e-06	1.78e-08	2.91e-08	3.23e-06	2.15e-05	3.28e-08	2.18e-07						
16	4,4'-DDE					8.07e-07	1.30e-06	8.20e-09	1.32e-08	8.07e-07	1.30e-06	8.20e-09	1.32e-08						
16	4,4'-DDT	4.07e-06	2.67e-05	4.13e-08	2.71e-07	4.77e-06	1.01e-05	4.85e-08	1.03e-07	4.77e-06	2.67e-05	4.85e-08	2.71e-07						
16	Acetone	2.44e-04	4.91e-04	7.74e-09	1.56e-08	2.18e-04	4.07e-04	6.63e-10	1.24e-09	2.44e-04	4.91e-04	7.74e-09	1.56e-08						
16	Aldrin	3.12e-06	2.07e-05	3.17e-08	2.10e-07	3.32e-06	6.94e-06	3.38e-08	7.06e-08	3.32e-06	2.07e-05	3.38e-08	2.10e-07						
16	Carbondisulfide					9.82e-06	1.83e-05	3.59e-11	6.70e-11	9.82e-06	1.83e-05	3.59e-11	6.70e-11						
16	Chloromethane					1.12e-05	2.90e-05	9.15e-11	2.38e-10	1.12e-05	2.90e-05	9.15e-11	2.38e-10						
16	Chlorpyrifos (Dursban)	3.39e-04		3.44e-06		2.92e-04	8.68e-04	2.97e-06	8.82e-06	3.39e-04	8.68e-04	3.44e-06	8.82e-06						
16	Chrysene					3.54e-05	9.98e-02	3.60e-07	1.01e-03	3.54e-05	9.98e-02	3.60e-07	1.01e-03						
16	Coumaphos	1.49e-06		1.52e-08						1.49e-06		1.52e-08							
16	Diazinon	4.97e-05		5.05e-07		4.73e-06	1.13e-05	4.81e-08	1.15e-07	4.97e-05	1.13e-05	5.05e-07	1.15e-07						
16	Dicamba					2.18e-06	5.02e-06	2.21e-08	5.10e-08	2.18e-06	5.02e-06	2.21e-08	5.10e-08						
16	Dichloroprop					3.91e-05	7.23e-05	4.45e-11	8.22e-11	3.91e-05	7.23e-05	4.45e-11	8.22e-11						
16	Dichlorvos	3.09e-05		3.14e-07						3.09e-05		3.14e-07							
16	Dieldrin	3.05e-06	2.02e-05	3.10e-08	2.05e-07	2.08e-07	3.81e-07	2.11e-09	3.88e-09	3.05e-06	2.02e-05	3.10e-08	2.05e-07						
16	Dinoseb	9.92e-06	3.91e-05	1.01e-07	3.97e-07					9.92e-06	3.91e-05	1.01e-07	3.97e-07						
16	Endosulfan I					1.73e-07	3.20e-07	1.76e-09	3.25e-09	1.73e-07	3.20e-07	1.76e-09	3.25e-09						
16	Endosulfan II					3.33e-06	5.58e-06	3.38e-08	5.67e-08	3.33e-06	5.58e-06	3.38e-08	5.67e-08						
16	Endrin	2.76e-06	1.80e-05	2.80e-08	1.83e-07	1.17e-05	2.83e-05	1.19e-07	2.87e-07	1.17e-05	2.83e-05	1.19e-07	2.87e-07						
16	Endrin Aldehyde	1.58e-06	7.09e-06	1.60e-08	7.21e-08	5.03e-06	1.06e-05	5.11e-08	1.08e-07	5.03e-06	1.06e-05	5.11e-08	1.08e-07						
16	Ethylbenzene					4.21e-06	5.64e-06	7.82e-13	1.05e-12	4.21e-06	5.64e-06	7.82e-13	1.05e-12						
16	Fenthion	7.91e-06		8.04e-08		1.71e-06	2.69e-06	1.74e-08	2.73e-08	7.91e-06	2.69e-06	8.04e-08	2.73e-08						
16	Fluoranthene					2.38e-05	9.68e-02	2.41e-07	9.84e-04	2.38e-05	9.68e-02	2.41e-07	9.84e-04						
16	Fluorene					1.77e-03	3.14e+00	3.76e-13	6.68e-10	1.77e-03	3.14e+00	3.76e-13	6.68e-10						

Table C2-5 (Continued)

Site ID	Compound	Concentrations (g/m³)																	
		Modeled Scenario Receptor Locations																	
16	Heptachlor					1.27e-07	2.74e-07	1.29e-09	2.78e-09	1.27e-07	2.74e-07	1.29e-09	2.78e-09						
16	Heptachlorepoxide	1.23e-04	8.99e-04	1.25e-06	9.14e-06	7.97e-07	1.44e-06	8.10e-09	1.46e-08	1.23e-04	8.99e-04	1.25e-06	9.14e-06						
16	Hydrocarbons	2.31e-02	3.82e-02	2.35e-04	3.88e-04	1.28e+00	2.83e+00	1.30e-02	2.88e-02	1.28e+00	2.83e+00	1.30e-02	2.88e-02						
16	MCPA	1.13e-02	2.64e-02	1.15e-04	2.69e-04	3.28e-03	5.43e-03	3.34e-05	5.51e-05	1.13e-02	2.64e-02	1.15e-04	2.69e-04						
16	Merphos B	3.87e-06		3.93e-08		1.32e-06	1.65e-06	1.34e-08	1.67e-08	3.87e-06	1.65e-06	3.93e-08	1.67e-08						
16	Methoxychlor					9.90e-06	2.20e-05	1.01e-07	2.23e-07	9.90e-06	2.20e-05	1.01e-07	2.23e-07						
16	Methylazinphos	8.12e-05	5.75e-04	8.25e-07	5.85e-06	2.52e-05	7.28e-05	2.56e-07	7.40e-07	8.12e-05	5.75e-04	8.25e-07	5.85e-06						
16	Methylethylketone					1.04e-04	1.30e-04	1.58e-10	1.99e-10	1.04e-04	1.30e-04	1.58e-10	1.99e-10						
16	Methylparathion	9.42e-07	1.04e-06	9.57e-09	1.05e-08					9.42e-07	1.04e-06	9.57e-09	1.05e-08						
16	Methylene Chloride	9.28e-06	2.56e-05	6.94e-10	1.91e-09	5.22e-05	1.42e-04	3.02e-10	8.22e-10	5.22e-05	1.42e-04	6.94e-10	1.91e-09						
16	Mevinphos	2.55e-06		2.59e-08		1.82e-06	2.19e-06	1.85e-08	2.22e-08	2.55e-06	2.19e-06	2.59e-08	2.22e-08						
16	Naled					4.69e-06	7.10e-06	4.77e-08	7.21e-08	4.69e-06	7.10e-06	4.77e-08	7.21e-08						
16	Phenanthrene					2.55e-03	5.56e+00	4.43e-14	9.65e-11	2.55e-03	5.56e+00	4.43e-14	9.65e-11						
16	Phorate					3.77e-06	8.29e-06	3.83e-08	8.42e-08	3.77e-06	8.29e-06	3.83e-08	8.42e-08						
16	Pyrene					1.52e-04	2.61e-01	1.54e-06	2.65e-03	1.52e-04	2.61e-01	1.54e-06	2.65e-03						
16	Sulprofos (Bolstar)	1.18e-06		1.20e-08		8.24e-07	1.49e-06	8.37e-09	1.51e-08	1.18e-06	1.49e-06	1.20e-08	1.51e-08						
16	Toluene	1.62e-06	2.44e-06	8.44e-12	1.27e-11	2.09e-06	2.90e-06	1.05e-12	1.46e-12	2.09e-06	2.90e-06	8.44e-12	1.27e-11						
16	Xylene (total)					2.64e-05	3.37e-05	4.45e-12	5.68e-12	2.64e-05	3.37e-05	4.45e-12	5.68e-12						
16	alpha-BHC	1.74e-06	1.20e-05	1.77e-08	1.22e-07	4.78e-07	9.15e-07	4.85e-09	9.30e-09	1.74e-06	1.20e-05	1.77e-08	1.22e-07						
16	delta-BHC	4.74e-06	3.20e-05	4.81e-08	3.25e-07	4.46e-06	1.07e-05	4.53e-08	1.09e-07	4.74e-06	3.20e-05	4.81e-08	3.25e-07						
16	gamma-BHC	2.34e-06	1.50e-05	2.38e-08	1.52e-07	3.80e-07	8.19e-07	3.86e-09	8.32e-09	2.34e-06	1.50e-05	2.38e-08	1.52e-07						
Modeled Scenario/Receptor Location		Current On-Site		Future On-Site		Current Playground		Future Playground		Current Building 1191			Current Building 1182			Current Building 1112			
36		Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Total	Avg	UCL	Total	Avg	UCL	Total	
36	Benzo(a)pyrene	9.59e-05	1.38e-01			3.41e-06	4.89e-03			1.04e-06	1.50e-03	9.70e-05	7.61e-07	1.09e-03	9.67e-05	5.28e-07	7.59e-04	9.65e-05	
36	Lead	4.30e-01	9.31e-01	2.50e-02	3.01e-02	1.53e-02	3.31e-02	8.88e-04	1.07e-03	4.68e-03	1.01e-02	4.35e-01	3.41e-03	7.39e-03	4.33e-01	2.37e-03	5.13e-03	4.32e-01	
36	Acetone			3.39e-03	7.87e-03			6.30e-05	1.46e-04										
36	Aniline	2.22e-04	3.03e-01			4.22e-10	5.78e-07			1.30e-10	1.77e-07	2.22e-04	9.44e-11	1.29e-07	2.22e-04	6.56e-11	8.97e-08	2.22e-04	
36	Anthracene	2.98e-05	3.70e-02			1.06e-06	1.31e-03			3.24e-07	4.02e-04	3.01e-05	2.37e-07	2.93e-04	3.00e-05	1.64e-07	2.04e-04	3.00e-05	
36	Benzene	2.67e-06	3.29e-06			6.21e-10	7.66e-10			1.90e-10	2.35e-10	2.67e-06	1.39e-10	1.71e-10	2.67e-06	9.63e-11	1.19e-10	2.67e-06	
36	Benzo(a)anthracene	1.04e-04	1.45e-01			3.68e-06	5.13e-03			1.13e-06	1.57e-03	1.05e-04	8.24e-07	1.15e-03	1.05e-04	5.72e-07	7.96e-04	1.04e-04	
36	Benzo(b)fluoranthene	1.77e-04	2.72e-01			6.27e-06	9.67e-03			1.92e-06	2.96e-03	1.79e-04	1.40e-06	2.16e-03	1.78e-04	9.73e-07	1.50e-03	1.78e-04	

Table C2-5 (Continued)

Site ID	Compound	Concentrations (µg/m³)																	
		Modeled Scenario Receptor Locations																	
36	Benzo(g,h,i)perylene	1.40e-04	1.71e-01			4.96e-06	6.06e-03			1.52e-06	1.86e-03	1.41e-04	1.11e-06	1.35e-03	1.41e-04	7.70e-07	9.40e-04	1.41e-04	
36	Benzo(k)fluoranthene	1.85e-04	2.80e-01			6.57e-06	9.94e-03			2.01e-06	3.05e-03	1.87e-04	1.47e-06	2.22e-03	1.87e-04	1.02e-06	1.54e-03	1.86e-04	
36	Chrysene	1.34e-04	2.08e-01			4.75e-06	7.40e-03			1.46e-06	2.27e-03	1.35e-04	1.06e-06	1.65e-03	1.35e-04	7.37e-07	1.15e-03	1.34e-04	
36	Dibutylphthalate	1.13e-04	1.73e-01			4.02e-06	6.16e-03			1.23e-06	1.89e-03	1.15e-04	8.99e-07	1.38e-03	1.14e-04	6.24e-07	9.55e-04	1.14e-04	
36	Ethylbenzene	4.57e-06	5.56e-06			1.38e-10	1.68e-10			4.22e-11	5.14e-11	4.57e-06	3.07e-11	3.75e-11	4.57e-06	2.13e-11	2.60e-11	4.57e-06	
36	Fluoranthene	1.51e-04	2.35e-01			5.36e-06	8.35e-03			1.64e-06	2.56e-03	1.53e-04	1.20e-06	1.87e-03	1.52e-04	8.31e-07	1.30e-03	1.52e-04	
36	Hydrocarbons	1.01e+00	1.63e+00	1.93e-02	4.91e-02	3.58e-02	5.78e-02	6.86e-04	1.74e-03	1.10e-02	1.77e-02	1.02e+00	8.00e-03	1.29e-02	1.02e+00	5.56e-03	8.97e-03	1.01e+00	
36	Indeno(1,2,3-cd)pyrene	7.98e-05	1.01e-01			2.83e-06	3.59e-03			8.69e-07	1.10e-03	8.07e-05	6.34e-07	8.04e-04	8.05e-05	4.40e-07	5.58e-04	8.03e-05	
36	Methylene Chloride			2.90e-04	8.37e-04			1.03e-05	2.97e-05										
36	Phenanthrene	9.62e-05	1.29e-01			3.08e-13	4.12e-10			9.43e-14	1.26e-10	9.62e-05	6.88e-14	9.22e-11	9.62e-05	4.77e-14	6.40e-11	9.62e-05	
36	Pyrene	1.48e-04	2.31e-01			5.26e-06	8.20e-03			1.61e-06	2.51e-03	1.50e-04	1.18e-06	1.83e-03	1.49e-04	8.17e-07	1.27e-03	1.49e-04	
36	Toluene	9.74e-06	1.33e-05			7.43e-10	1.02e-09			2.28e-10	3.11e-10	9.74e-06	1.66e-10	2.27e-10	9.74e-06	1.15e-10	1.58e-10	9.74e-06	
36	Trichloroethene	9.64e-06	1.23e-05			2.84e-09	3.62e-09			8.70e-10	1.11e-09	9.65e-06	6.34e-10	8.10e-10	9.65e-06	4.40e-10	5.62e-10	9.65e-06	
Modeled Scenario/Receptor Location		Current Residential		Future Residential		Future On-Site		Current 47OCP03		Current 47OCP02		Current 47OCP06		Current 47OCP11		Future Construction			
47		Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL		
47	1,1-Dichloroethene			6.72e-09	1.21e-08	8.39e-04	1.51e-03									8.39e-04	1.51e-03		
47	Benzene			4.71e-09	9.82e-09	3.70e-03	7.73e-03									3.70e-03	7.73e-03		
47	Arsenic	2.13e-07	2.56e-07	1.37e-07	1.86e-07	3.43e-03	4.64e-03	1.69e-04	2.03e-04	1.79e-04	2.15e-04	1.69e-04	2.03e-04	5.23e-05	6.30e-05	5.32e-03	6.40e-03		
47	Barium	4.20e-06	5.06e-06					3.33e-03	4.01e-03	3.53e-03	4.25e-03	3.33e-03	4.01e-03	1.03e-03	1.24e-03	1.05e-01	1.32e-01		
47	Cadmium	7.02e-08	8.45e-08	1.14e-08	2.28e-08	2.84e-04	5.69e-04	5.57e-05	6.70e-05	5.90e-05	7.10e-05	5.56e-05	6.70e-05	1.73e-05	2.08e-05	1.75e-03	3.60e-03		
47	Chromium	1.10e-06	1.33e-06	5.05e-07	6.08e-07	1.26e-02	1.52e-02	8.76e-04	1.05e-03	9.28e-04	1.12e-03	8.75e-04	1.05e-03	2.72e-04	3.27e-04	2.76e-02	4.39e-02		
47	Lead	6.54e-06	7.86e-06					5.18e-03	6.24e-03	5.49e-03	6.61e-03	5.18e-03	6.23e-03	1.61e-03	1.93e-03	1.63e-01	3.44e-01		
47	Mercury			3.43e-10	4.09e-10	8.56e-06	1.02e-05									8.56e-06	1.02e-05		
47	Selenium	1.13e-07	1.55e-07	1.58e-07	2.01e-07	3.94e-03	5.01e-03	8.99e-05	1.23e-04	9.52e-05	1.30e-04	8.98e-05	1.08e-04	2.79e-05	3.81e-05	3.94e-03	5.01e-03		
47	2-Hexanone			1.01e-11	1.21e-11	3.78e-06	4.50e-06									3.78e-06	4.50e-06		
47	2-Methylnaphthalene	1.18e-13	1.465e-10	8.83e-13	1.07e-09	1.63e-03	1.98	9.34e-11	1.16e-07	9.89e-11	1.23e-04	9.33e-11	1.12e-10	2.90e-11	3.59e-08	1.63e-03	1.98		
47	4-Methyl-2-Pentanone (MIBK)			4.08e-13	5.15e-13	2.33e-06	2.93e-06									2.33e-06	2.93e-06		
47	Acetone			2.81e-10	5.02e-10	1.12e-04	2.00e-04									1.12e-04	2.00e-04		
47	Benzo(a)anthracene	3.33e-09	5.14e-06					2.64e-06	4.08e-03	2.80e-06	4.32e-03	2.64e-06	3.17e-06	8.19e-07	1.26e-03	8.31e-05	1.28e-01		
47	Carbondisulfide			3.36e-11	4.05e-11	1.12e-05	1.35e-05									1.12e-05	1.35e-05		
47	Chrysene	3.40e-09	4.59e-06					2.70e-06	3.64e-03	2.86e-06	3.86e-03	2.70e-06	3.25e-06	8.37e-07	1.13e-03	8.50e-05	1.15e-01		

Table C2-5 (Continued)

Site ID	Compound	Concentrations (µg/m³)																	
		Modeled Scenario Receptor Locations																	
47	Dibenzofuran			1.61e-08	1.83e-05	4.01e-04	4.58e-01									4.01e-04	4.58e-01		
47	Ethylbenzene			2.82e-09	5.52e-09	1.84e-02	3.61e-02									1.84e-02	3.61e-02		
47	Hydrocarbons	8.04e-05	1.95e-04	2.13e-05	3.92e-05	5.33e-01	9.79e-01	3.68e-02	1.54e-01	6.76e-02	1.64e-01	6.37e-02	7.76e-02	1.98e-02	4.79e-02	2.01	4.86		
47	Methylene Chloride	1.47e-11	3.56e-11	1.70e-11	2.66e-11	3.56e-06	5.57e-06	1.17e-08	2.83e-08	1.24e-08	2.99e-08	1.17e-08	1.40e-08	3.62e-09	8.76e-09	3.56e-06	5.57e-06		
47	Naphthalene	2.62e-13	6.34e-13	1.09e-12	1.23e-09	3.94e-04	4.46e-01	2.08e-10	5.03e-10	2.0e-10	5.33e-10	2.08e-10	2.50e-10	6.44e-11	1.56e-10	3.94e-04	4.46e-01		
47	Phenanthrene	9.91e-16	2.40e-15					7.86e-13	1.90e-12	8.33e-13	2.02e-12	7.85e-13	9.45e-13	2.44e-13	5.90e-13	7.27e-05	1.00e-01		
47	Pyrene	1.86e-09	4.49e-09					1.47e-06	3.56e-06	1.56e-06	3.77e-06	1.47e-06	1.77e-06	4.56e-07	1.10e-06	4.63e-05	6.81e-02		
47	Toluene			7.74e-09	1.82e-08	1.87e-02	4.40e-02												
47	Trichloroethene			3.70e-12	4.29e-12	2.35e-06	2.72e-06												
47	Xylene (total)			3.05e-09	6.81e-09	2.20e-02	4.90e-02												
Modeled Scenario/Receptor Location		Current On-Site		Future On-Site		Maximum of Current/Future On-Site		Current Occupational		Future Occupational		Current Site 126		Future Site 126		Current Site 127		Future Site 127	
1080		Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL	Avg	UCL
1080	Arsenic	1.09e-02	1.60e-02	5.49e-03	7.71e-03	1.09e-02	1.60e-02	4.17e-04	6.12e-04	2.10e-04	2.94e-04	2.42e-05	3.54e-05	1.21e-05	1.70e-05	3.40e-06	4.98e-06	1.71e-06	2.40e-06
1080	Barium			4.46e-01	4.81e-01	4.46e-01	4.81e-01			1.70e-02	1.83e-02			9.86e-04	1.06e-03			1.39e-04	1.49e-04
1080	Cadmium	1.47e-04	7.55e-04	2.80e-04	1.68e-03	2.80e-04	1.68e-03	5.62e-06	2.88e-05	1.07e-05	6.41e-05	3.26e-07	1.67e-06	6.18e-07	3.71e-06	4.58e-08	2.35e-07	8.69e-08	5.22e-07
1080	Chromium	4.02e-02	4.52e-02	7.10e-02	9.49e-02	7.10e-02	9.49e-02	1.53e-03	1.72e-03	2.71e-03	3.62e-03	8.88e-05	9.99e-05	1.57e-04	2.10e-04	1.25e-05	1.40e-05	2.21e-05	2.95e-05
1080	Lead	4.59e-02	7.38e-02	3.39e-02	4.63e-02	4.59e-02	7.38e-02	1.75e-03	2.82e-03	1.29e-03	1.77e-03	1.02e-04	1.63e-04	7.50e-05	1.02e-04	1.43e-05	2.29e-05	1.05e-05	1.44e-05
1080	Selenium	1.71e-02	1.82e-02	8.31e-03	1.56e-02	1.71e-02	1.82e-02	6.51e-04	6.96e-04	3.17e-04	5.96e-04	3.77e-05	4.03e-05	1.84e-05	3.45e-05	5.31e-06	5.67e-06	2.58e-06	4.86e-06
1080	1,1-Dichloroethene	3.39e-03	4.49e-03			3.39e-03	4.49e-03	3.37e-06	4.46e-06			1.95e-07	2.59e-07			2.75e-08	3.64e-08		
1080	Benzene	1.34e-03	2.06e-03			1.34e-03	2.06e-03	1.40e-07	2.16e-07			8.14e-09	1.25e-08			1.14e-09	1.76e-09		
1080	Ethylbenzene	1.57e-01	3.63e-01			1.57e-01	3.63e-01	2.14e-06	4.94e-06			1.24e-07	2.86e-07			1.74e-08	4.02e-08		
1080	Toluene	1.19e-01	2.73e-01	5.15e-06	9.49e-06	1.19e-01	2.73e-01	4.09e-06	9.42e-06	1.71e-11	3.16e-11	2.37e-07	5.46e-07	9.92e-13	1.83e-12	3.33e-08	7.67e-08	1.39e-13	2.57e-13
1080	Xylene(total)	3.05e-01	7.03e-01			3.05e-01	7.03e-01	3.63e-06	8.37e-06			2.10e-07	4.85e-07			2.96e-08	6.82e-08		

ATTACHMENT C-3

Toxicity Assessment

TABLE OF CONTENTS

		Page
1.0	TOXICITY ASSESSMENT	C3-1
1.1	Toxicity Values Used in the Risk Assessment	C3-1
1.1.1	Toxicity Values for Noncarcinogenic Effects	C3-1
1.1.2	Toxicity Values for Carcinogenic Effects	C3-3
1.1.3	Methodology for Deriving Toxicity Surrogates	C3-3
1.2	Health Effects Summaries	C3-5
1.2.1	Arsenic	C3-7
1.2.2	Barium	C3-9
1.2.3	Benzene	C3-10
1.2.4	Benzo[a]Pyrene	C3-12
1.2.5	BHC (Alpha and Gamma)	C3-13
1.2.6	Cadmium	C3-15
1.2.7	Chromium	C3-17
1.2.8	1,1-Dichloroethene	C3-19
1.2.9	Dieldrin	C3-21
1.2.10	Ethylbenzene	C3-22
1.2.11	Heptachlor Epoxide	C3-23
1.2.12	Methylene Chloride	C3-25
1.2.13	PCB-1242, PCB-1254, and PCB-1260	C3-26
1.2.14	Trichlorothene	C3-27
1.3	Uncertainty Associated with Toxicity Information	C3-28
1.4	Summary of Toxicity Assessment	C3-32
2.0	REFERENCES	C3-33

LIST OF TABLES

C3-1 Total Toxicity Values for Chemicals Specific to Holloman Waste Sites C3-2

C3-2 Derived Dermal Toxicity Factors Based on Gastrointestinal Absorption Rates . . C3-6

LIST OF FIGURES

C3-1 Trichloroethylene (TCE) C3-29

1.0 TOXICITY ASSESSMENT

Available toxicity information for each of the chemicals of concern is presented in this Appendix. This information includes a listing of standard EPA toxicity values, toxicity values derived for use with this risk assessment, and a brief description of the adverse health effects associated with exposure to each of the chemicals. The uncertainties associated with the toxicity information are also discussed.

The toxicity profile for cadmium was not changed and is included here. The profiles for arsenic, benzene, alpha- and gamma-BHC, 1,10-dichloroethene, ethylbenzene, heptachlor epoxide, methylene chloride, PCB-1260 and trichloroethene were updated and included here. Profiles for barium, benzo(a)pyrene, chromium, and dieldrin were added to the assessment and are included here, as well.

1.1 Toxicity Values Used in the Risk Assessment

This section summarizes the available toxicity information for each of the chemicals of concern with potential for human exposure. The relevant information includes standard EPA toxicity values and toxicity values derived for use in the risk assessment. The information in this section was used in determining the risks associated with noncarcinogenic effects [reference doses (RfDs) and reference concentrations (RfCs)], carcinogenic potential (slope factors and inhalation unit risks), and weight of evidence classification.

1.1.1 Toxicity Values for Noncarcinogenic Effects

The RfD and RfC values for the chemicals of concern are presented in Table C3-1 and were obtained from Integrated Risk Information System (IRIS) dated April 1994, from the EPA Health Effects Assessment Summary Tables (HEAST) (EPA, 1993b), from HEAST (EPA, 1992a) if the data is currently under review, or from correspondence with the

Table C3-1
Toxicity Values for Chemicals Specific to Holloman Waste Sites

Chemical	EPA Class	Chronic Oral RfD (mg/kg-day)	Subchronic Oral RfD (mg/kg-day)	Chronic Inhalation RfC (mg/m3)	Subchronic Inhalation RfC (mg/m3)	Oral Slope Factor 1/(mg/kg-day)	Inhalation Unit Risk 1/(mg/m3)	Chronic Dermal RfD * (mg/kg/day)	Subchronic Dermal RfD * (mg/kg/day)	Dermal Slope Factor * 1/(mg/kg/day)
Arsenic	A	3.00E-04 [a]	3.00E-04 [b]	--	--	--	4.30E-06 [a]	2.85E-04[h]	2.90E-04[h]	--
Barium		7.00E-02[a]	7.00E-02[b]	5.00E-04[b]	5.00E-03[b]	--	--	3.5E-03[h]	3.5E-03[h]	--
Benzene	A	--	--	--	--	2.90E-02 [a]	8.30E-09 [a]	--	--	5.80E-01
Benzo(a)pyrene	B2	--	--	--	--	7.30E+00 [a]	1.70E-06 [c]	--	--	9.13E+00[h]
alpha-BHC	B2	--	--	--	--	6.30E+00 [a]	1.80E-06 [a]	--	--	6.47E+00[h]
gamma-BHC	B2/C	3.00E-04 [a]	3.00E-03 [b]	--	--	1.30E+00 [b]	--	2.98E-04[h]	2.98E-03[h]	1.31E+00[h]
Cadmium (food)	B1	1.00E-03 [a]	--	--	--	--	1.80E-03 [a]	3.80E-05	--	--
Chromium		1.00E+00[a]	1.00E+01[b]	--	--	--	--	1.50E-01	1.50E-01	4.00E+00
1,1-Dichloroethene	C	9.00E-03 [a]	9.00E-03 [b]	--	--	6.00E-01[a]	5.00E-08 [a]	8.60E-03[h]	8.6E-03[h]	3.00E+00
Dieldrin	B2	5.00E-05 [a]	5.00E-05 [b]	--	--	1.60E+01 [a]	4.60E-06 [a]	2.50E-05[h]	2.50E-05[h]	3.20E+01[h]
Ethyl benzene	D	1.00E-01 [a]	1.00E-01 [d]	1.00E+00 [a]	1.00E+00 [c]	--	--	5.00E-03	5.00E-02	--
Heptachlor epoxide	B2	1.30E-05 [a]	1.30E-05 [b]	--	--	9.10E+00 [a]	2.60E-06 [a]	7.80E-06[h]	7.80E-06[h]	1.52E+01[h]
Methylene chloride	B2	6.00E-02 [a]	6.00E-02 [b]	3.0E+00 [b]	3.00E+00 [b]	7.50E-03 [a]	4.70E-10 [a]	1.20E-02	1.20E-02	3.75E-02
PCB-1260	B2	--	--	--	--	7.70E+00 [g]	--	--	--	8.56E+00[h]
Trichloroethene	B2/C	--	--	--	--	1.10E-02 [e]	1.70E-09 [e]	--	--	1.10E-02[h]

[a] IRIS on-line search (04/94).

[b] Listed in HEAST, 1993.

[c] Listed in HEAST, 1992; currently under review.

[d] Verified by Superfund Health Risk Technical Support Center (4/94).

[e] Verified by Superfund Health Risk Technical Support Center (8/93).

[f] Verified by Superfund Health Risk Technical Support Center (11/93).

[g] IRIS on-line search (01/92).

[h] GI derived.

* Values based on methodology found in:

U.S. Environmental Protection Agency (EPA), 1989. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual, Part A.* Interim Final. EPA/540/1-89/002, December 1989.

EPA Superfund Health Risk Technical Support Center. Oral RfD values were available for 9 of the 15 contaminants of potential concern; however, they were not available for benzene, benzo(a)pyrene, alpha-BHC, cadmium or PCB-1260. Unless a specific dermal RfD was listed by IRIS or HEAST, the RfD for dermal exposure was derived as explained in Section 1.1.3. When available, inhalation reference concentrations are included.

1.1.2 Toxicity Values for Carcinogenic Effects

The slope factors for chemicals of potential concern classified by EPA as carcinogens are also presented in Table C3-1 and were obtained from an IRIS search dated April 1994, from HEAST, 1993, from an IRIS search dated January 1992, or from correspondence sent by the Superfund Health Risk Technical Support Center. Two compounds were not assigned a weight of evidence classification while 12 were given A, B1, B2, or C classifications, indicating carcinogenic potential. Dermal slope factors were derived as explained in Section 1.1.3. When available, inhalation unit risk factors were included.

1.1.3 Methodology for Deriving Dermal Toxicity Surrogates

In the assessment of intakes via dermal contact with contaminated media, it is necessary that both the intake and the toxicity value used for the assessment both be expressed in terms of absorbed dose to ensure that a direct comparison can be made. USEPA recognizes that toxicity values for many contaminants are based on studies of administered dose and provides in Appendix A of RAGs Volume 1, Part A, a methodology for adjusting oral toxicity factors to approximations of dermal toxicity. When more chemical-specific information is not available, a relatively conservative adjustment for oral absorption (5%) is recommended as the default. This adjustment results in division of oral slope factors by a factor of 20 and, conversely, multiplication of oral reference doses by a factor of 20. USEPA recommends the use of various sources for absorption efficiencies which should be used in place of these conservative default values when available.

For this baseline risk assessment, dermal risk drivers at the Holloman sites were identified based on application of the default USEPA guidance in RAGS. For a better approximation of the dermal toxicity of these constituents, a screening level search of the available literature was performed and a methodology presented in Wang, et al., 1992, was selected. The methodology used by Borgert et al., as presented in Wang et al., 1992, uses chemical-specific gastrointestinal (GI) absorption efficiency as the adjustment factor to be applied to oral toxicity factors. For constituents having oral slope factors, the slope factor was adjusted by dividing by the appropriate absorption efficiency. Constituents having oral reference doses were adjusted by multiplying that value by the appropriate absorption efficiency. In effect, this raises the slope factors and lowers the reference doses with respect to the oral toxicity factors. In this way, the derivation of dermal toxicity factors becomes a chemical-specific adjustment likely to generate a more accurate approximation of dermal toxicity.

Borgert et al. provides gastrointestinal absorption factors for several polycyclic aromatic hydrocarbons. Supplemental GI values for this assessment were extracted from Agency for Toxic Substances and Disease Registry (ATSDR) toxicological profiles for specific chemicals and Ambient Water Quality Criteria Documents. Wherever a range of GI values was provided by any one study, the mean of that range was used as a discrete value in this assessment. Additionally, wherever more than one study or more than one GI value was identified for a particular chemical, the more conservative absorption rate was used in this assessment.

In a study conducted by Gaines (1968), LD_{50}s were determined when rats were exposed to chlorinated hydrocarbon pesticides both orally and dermally. The pesticides tested in the study were generally more toxic by the oral route than by the dermal route. The factor of difference (the ratio of the dermal LD_{50} to the oral LD_{50}) was determined for four pesticides (alpha-BHC, gamma-BHC, dieldrin, and heptachlor epoxide) and multiplied by the USEPA-verified oral toxicity value to determine the corresponding dermal toxicity values. As with

oral slope factors, dermal slope factors were *not* calculated in the same manner as dermal RfDs since the mechanism of death in these studies is almost certainly different from the mechanism of tumorigenesis.

The adjusted toxicity values derived for the risk drivers at the Holloman sites are provided in Table C3-2. Gastrointestinal absorption rates may be available for other chemicals of potential concern that are not dermal risk drivers. However, for these chemicals, and for chemicals for which adjustment via the selected method is inappropriate, the more conservative default assumptions provided in Appendix A of RAGS (EPA, 1989) have been used in the baseline risk assessment.

1.2 Health Effects Summaries

This section of the appendix summarizes the toxicity information available for the noncarcinogenic and carcinogenic effects associated with the chemicals of potential concern. General information on the potential health effects of exposures to the chemicals of potential concern is provided. Toxicity information on noncarcinogenic effects is provided for each contaminant that has an RfD value and includes the data that formed the basis for the derivation of that RfD. Information is also included for contaminants for which RfDs or slope factors were derived by alternative methods. Dermal toxicity values were derived as explained in Section 1.1.3 for all of the chemicals of potential concern and can be found in Table C3-1. Information on the potential carcinogenic risk of each chemical is provided along with supporting data for the EPA weight of evidence classification. Unless otherwise stated, the information presented below is summarized from the data available on IRIS as of April 1994 or from HEAST (EPA, 1993b).

Table C3-2

Derived Dermal Toxicity Factors Based on Gastrointestinal Absorption Rates

Chemical Driving Dermal Risk	Chronic Oral Rfd	Sub-Chronic Oral Rfd	Gastrointestinal Absorption Factor (unitless)	Adjusted Chronic Rfd (mg/kg/d)	Adjusted Sub-Chronic Rfd	Oral Slope Factor	Gastrointestinal Absorption Factor (unitless)	Adjusted Slope Factor $(mg/kg/d)^{-1}$	Source and Comments
PCB 1260						7.7E+00	0.9	8.6E+00	Value for all PCBs, ATSDR,1992.
B(a)P						7.3E+00	0.48	1.5E+01	38-58% range, ATSDR, 1993.
Arsenic	3E-04	3E-04	0.95	2.9E-04	2.9E-04				Arsenic is carcinogenic through the inhalation pathway. No oral slope factor is available, ATSDR, 1992.
Barium	7E-02	7E-02	0.05	3.5E-03	3.5E-03				ATSDR, 1991.
Trichlorethene						1E-02	1.0	1E-02	The oral slope factor for trichloroethylene is expressed as an absorbed dose and requires no adjustment for dermal exposure.
1,1 Dichloroethene	9E-03	9E-03	0.95	8.6E-03	8.6E-03	6E-01	--	--	"rapidly and almost completely absorbed"-- no value provided, ATSDR, 1993. The oral slope factor for 1,1, dichloroethene is based on its structural relationship to vinyl chloride and inhalation studies with mice; therefore, it is inappropriate to adjust this value to an approximation of dermal toxicity using GI absorption rates.

Note: Sources for oral toxicity factors are provided in Table C3-1.

1.2.1 Arsenic

Large oral doses (above 60,000 ppb in food or water) of inorganic arsenic can produce death in humans. Lower levels of inorganic arsenic (300-30,000 ppb in food or water) may result in irritation of the stomach and intestines, with symptoms such as pain, nausea, vomiting, and diarrhea if swallowed. Other effects associated with ingestion of arsenic include decreased production of red and white blood cells, abnormal heart function, blood-vessel damage, and impaired nerve function causing a "pins and needles" sensation in the hands and feet. Studies in experimental animals indicate that doses of arsenic that are large enough to cause illness in pregnant females, may cause low birth weight, fetal malformations, or death of the fetus. However, there is no evidence available that suggests that arsenic is teratogenic or fetotoxic (ATSDR, *Toxicological Profile for Arsenic*, 1992).

Long-term oral exposure to inorganic arsenic often results in changes in the skin. The pattern of skin changes associated with arsenic exposure includes darkening of the skin and the appearance of "corns" or "warts" on the palms, soles, and torso. These skin changes are not considered to be a health concern. However, a small number of the corns may ultimately develop into skin cancer. Ingestion of arsenic has also been reported to increase the risk of cancer in the liver, bladder, kidney, and lung (ATSDR, *Toxicological Profile for Arsenic*, 1992).

Inhalation of high levels of arsenic usually results in sore throat and irritated lungs. Changes in skin patterns may also be experienced. The level at which these effects are likely to occur in humans is uncertain, but is probably above 100 $\mu g/m^3$. These effects usually are not serious but inhaled inorganic arsenic has been reported to increase the risk of lung cancer. However, this has been observed primarily in people exposed to arsenic in or around smelters (ATSDR, *Toxicological Profile for Arsenic*, 1992).

The chronic oral RfD for arsenic is listed in IRIS as 3.0E-04 mg/kg-day, and HEAST lists this same value for the subchronic oral RfD.. This value is supported by two studies using human populations exposed to arsenic in well water. The low dose group received 5-7 μg/L and the high dose group received 410 μg/L in well water. Exposure estimates are: high dose - 410 μg/L x 3 L/day x (1/55 kg) = 22 μg/kg-day; low dose - 5-7 μg/L x 3 L/day x (1/55 kg) = 0.3 - 0.4 μg/kg-day. The incidences of blackfoot disease, hyperpigmentation and keratosis increased with dose and age. It was stated that exposure times were directly related to chronological age in 75% of the cases. This study reported the NOAEL (No Observed Adverse Effect Level) as 8.0E-04 mg/kg-day and the LOAEL as 1.4E-02 mg/kg-day. The critical effect was hyperpigmentation, keratosis and possible vascular complications.

The uncertainty factor used to derive for the oral RfD was 3. This factor accounts for both the lack of data and information regarding sensitive individuals. The confidence level is medium. An extremely large number of people (>40,000) were used in the assessment, but doses were not well characterized and other contaminants were present. The supporting human toxicity data base is extensive but somewhat flawed. The data base does support the choice of NOAEL, hence the confidence rating of medium. No inhalation RfD or RfC values are listed in IRIS or HEAST.

Arsenic is classified as Group A -- Human Carcinogen. This classification is based on the results of several epidemiologic studies in which increases in lung cancer mortality were observed among workers exposed to arsenic primarily through inhalation in the work place and on reports of increased skin cancer incidence in several populations consuming drinking water with high arsenic concentrations. The inhalation unit risk is listed in IRIS as 4.3E-03 $(\mu g/m^3)^{-1}$. Assuming that a 70 kg person inhales 20 m^3 of air per day, the inhalation slope factor is 1.5E+01 $(mg/kg\text{-}day)^{-1}$. A large population was observed and the exposure assessment included air measurements for the Anaconda smelter and both air measurements and urinary arsenic for the ASARCO smelter. Observed lung cancer incidence was

significantly increased over expected values. The available evidence does not currently support the inference that arsenic is carcinogenic by the oral route of exposure (ATSDR, *Toxicological Profile for Arsenic*, 1992).

1.2.2 Barium

Studies involving toxicoses following inhalation of barium have only been documented in workers exposed to barium dust. Abdominal cramps, nausea, vomiting, pulmonary lesions, muscle weakness, and renal failure was observed in a factory worker accidentally exposed to high levels of barium carbonate powder. There is limited data on inhalation studies in laboratory animals to support any conclusions (ATSDR, *Toxicological Profile for Barium*, 1991).

The majority of the studies evaluating the health effects of barium are by the oral route of exposure. Acute ingestion of high levels of barium can result in respiratory weakness, abnormalities in heart rhythm, hypertension, gastrointestinal disturbances, progressive muscle weakness, and renal insufficiency. The occurrence and severity of these symptoms decrease with decreasing levels of exposure. In fact, the only well-documented adverse effect following low-level, chronic exposure is compromise of the cardiovascular system. Significant increases in blood pressure were observed in rats administered 5.4-7.1 mg/kg-day for up to 16 months (ATSDR, Toxicological Profile for Barium, 1991).

Currently, the Maximum Contaminant Level (MCL) set forth in *Drinking Water Regulations and Health Advisories* (EPA, 1993a) is 2 mg/L for barium.

IRIS lists the chronic RfD for barium as 7.0E-02 mg/kg-day. HEAST lists this value as the subchronic oral RfD. The values are based primarily on two studies. In the first study, 11 healthy male volunteers were administered 0-10 mg/L barium in drinking water for 10 weeks. The second study was a retrospective epidemiological study, which compared

human mortality and morbidity rates in populations ingesting elevated barium levels (2-10 mg/L) in drinking water. A NOAEL of 10 mg/L was established by the first study and data from the chronic human epidemiological study support the NOAEL. The critical effect of interest was increased blood pressure. An uncertainty factor of 3 was used since data are available from a chronic human study. The level of confidence in the RfD is medium.

Although not listed in IRIS, a chronic inhalation RfC is available in HEAST as 5.0E-04 mg/m^3. The subchronic inhalation RfC is given as 5.0E-03 mg/m^3. The corresponding inhalation RfDs are 1.4E-04 mg/kg-day and 1.4E-03 mg/kg-day for chronic and subchronic exposure, respectively. These values are based on an inhalation study in which rats were exposed to 0.80 mg/m^3 of barium for 4 hours/day for 4 months. Fetotoxic effects were reported as a result of exposure. An uncertainty of 1000 was applied to account for inter- and intra- species variation and for extrapolating from a subchronic to a chronic study (10X each). A risk assessment for exposure to barium via inhalation is currently under review by an EPA work group.

Barium is not considered carcinogenic at this time; however, the EPA has not assigned barium a weight-of-evidence classification.

1.2.3 Benzene

Most people are exposed to a small amount of benzene on a daily basis. The major sources of benzene exposure are gasoline, automobile exhaust, industrial emissions, and tobacco smoke. Brief exposure (5-10 min) to very high levels of benzene in air (10,000-20,000 ppm) can result in death. Exposure to lower levels (700-3,000 ppm) may cause drowsiness, dizziness, headaches, and unconsciousness. These effects usually disappear once exposure is interrupted. Ingestion of foods or beverages containing high levels of benzene may result in vomiting, dizziness, convulsions, and death. Human health effects associated with ingestion of lower levels of benzene are currently unknown. Dermal contact with

benzene may cause redness or blisters (ATSDR, *Draft Toxicological Profile for Benzene*, 1992).

The majority of information on the effect of long-term exposure to benzene is from studies involving occupational exposure of employees to ambient levels of benzene far greater than the levels normally encountered by the general population. Inhalation of benzene for long periods of time may cause adverse effects in the tissues that form blood cells, especially the bone marrow. This may result in disruption of normal blood production and cause a decrease in important blood components, leading to anemia or excessive bleeding. Blood production may return to normal upon disruption of exposure. Benzene exposure can be harmful to the immune system, enhancing the probability of infection and perhaps lowering the body's defense against tumors. Long-term exposure to benzene in the air causes leukemia and has been associated with genetic changes (ATSDR, *Draft Toxicological Profile for Benzene*, 1992).

Long-term exposure to benzene may also damage the reproductive organs. Some female workers who breathed high levels of benzene for many months experienced irregular menstrual cycles. Upon examination of these women, decreased ovary size was revealed. However, exposure levels were not documented and it was not proven that benzene was responsible for the effects. Currently it is not known what effects benzene exposure has on the developing fetus in pregnant women. Studies in which pregnant laboratory animals were exposed to benzene resulted in low birth weights, delayed bone formation, and bone marrow damage (ATSDR, *Draft Toxicological Profile for Benzene*, 1992).

Human health effects associated with long-term exposure to food and water contaminated with benzene are not known. Animal studies indicate that oral exposure can damage the blood and immune system. Oral exposure of experimental animals to benzene has also been linked to cancer (ATSDR, *Toxicological Profile for Benzene*, 1992).

No oral RfD, inhalation RfD or inhalation RfC has been established.

EPA classifies benzene as Group A - Human Carcinogen. This classification is based on numerous epidemiologic studies which demonstrated an increased incidence or causal relationship between leukemia and occupational exposure to benzene. Supporting data include an increased incidence of neoplasia in rats and mice exposed by inhalation and gavage and an increase in chromosomal aberrations of bone marrow cells and peripheral lymphocytes from occupational exposure. An oral slope factor of 2.9E-02 $(mg/kg\text{-}day)^{-1}$ has been established, and an inhalation unit risk of 8.3E-06 $(\mu g/m^3)^{-1}$ has been derived from human data for inhalation exposure. These values are found in IRIS.

1.2.4 Benzo[a]Pyrene

No information is available in the current literature concerning the levels of benzo[a]pyrene (B[a]P) which cause harmful effects in humans following inhalation, ingestion, or dermal exposure. Short- and long-term exposures to B[a]P (120 mg/kg-day for up to 6 months) caused death when ingested by animals. Deaths appeared to be due to bone marrow suppression. Offspring of animals fed 10 mg B[a]P (or higher) during pregnancy had lower than normal birth weights and developmental/reproductive aberrations (alterations in gonadal development; decreased fertility; increased incidence of sterility). Reports on the effects of B[a]P following short-term dermal exposures in animals and intermediate exposures in humans suggest that B[a]P has deleterious effects on the skin. However, the studies failed to employ control groups and, therefore, conclusions about the dermal toxicity of B[a]P currently cannot be made (ATSDR, *Toxicological Profile for Benzo(a)Pyrene*, 1990).

The induction of cancer appears to be the key end point of toxicity following intermediate and long-term exposure to B[a]P by inhalation, ingestion, and dermal exposure since lower doses are required to induce tumors than other end points of toxicity. Experimental studies have demonstrated the ability of B[a]P to induce respiratory tract tumors

in hamsters following long-term (life-time) exposure to B[a]P as an aerosol at concentrations above 9.5 mg/m^3. Mice receiving B[a]P in the diet for 110 days (5.2 mg/kg-day) developed excess forestomach tumors. Long-term dermal exposure (1 μg/day) studies in experimental animals have demonstrated the ability of B[a]P to induce skin tumors. No information correlating inhalation or dermal exposure of humans to B[a]P and cancer is available, although reports of lung and skin tumors in individuals exposed to mixtures of PAHs containing B[a]P lend some support for its' carcinogenic potential.

EPA has classified B[a]P as Group B2 -- Probable Human Carcinogen. IRIS lists an oral slope factor for B[a]P as 7.30E+00 (mg/kg-day)$^{-1}$. Human data specifically linking B[a]P to a carcinogenic effect are lacking. However, there are numerous animal studies in many species that indicate that B[a]P is carcinogenic following administration by several routes. HEAST (1992) provides an inhalation unit risk of 1.7E-03 (μg/m^3)$^{-1}$ and an inhalation slope factor of 6.1E+00 (mg/kg-day)$^{-1}$.

1.2.5 BHC (Alpha and Gamma)

People generally are not exposed to the beta and delta-forms of benzene hexachloride (BHC) separately but to lindane (gamma-BHC) or to technical-grade BHC (a mixture of the alpha, beta, gamma, and delta-forms). Therefore, the health effects of the BHC isomers are considered jointly. The adverse health effects of lindane and the other BHC isomers (alpha, beta, and delta) that have been seen in humans include lung irritation, heart disorders, blood disorders, headache, convulsions, and alterations in levels of sex hormones. These effects were observed in individuals exposed to BHC vapors during its manufacture and/or in individuals accidentally exposed to very large quantities of BHC. Death can result in humans and animals exposed to large amounts of BHC. Liver disease has been reported in animals fed lindane or alpha, beta, or technical-grade BHC and liver cancer has been reported in rodents which received long-term administration of these compounds (ATSDR *Toxicological Profile for* α, β, γ, *and* δ*-Hexachlorocyclohexane*, 1992).

Alpha-BHC--Currently, there are no noncarcinogenic chronic or subchronic toxicity values available. Alpha-BHC is classified as a Group B2--Probable Human Carcinogen since it has been shown to cause increased incidence of liver tumors in mice and rats. IRIS lists the oral slope factor as 6.3E+00 $(mg/kg\text{-}day)^{-1}$ and the inhalation unit risk factor as 1.8E-03 $(\mu g/m^3)^{-1}$. HEAST lists the inhalation slope factor as 6.3E+0 $(mg/kg\text{-}day)^{-1}$.

Gamma-BHC (Lindane)--The oral RfD for gamma-BHC is listed in IRIS as 3.0E-04 mg/kg-day. This value is supported by a 12 week study which dosed rats with 0, 0.2, 0.8, 4, 20, or 100 ppm gamma-BHC in the diet. After 12 weeks, 15 animals/ sex/group were sacrificed. The remaining rats were fed the control diet for an additional six weeks before sacrifice. Treatment-related effects were noted in mortality, hematology, clinical chemistry, and urinalysis. Rats receiving 20 and 100 ppm gamma-BHC were observed to have greater-than-control incidence of the following: liver hypertrophy, kidney tubular degeneration, hyaline droplets, tubular distension, interstitial nephritis, and basophilic tubules. Because these effects were mild or rare in animals receiving 4 ppm, this value represents a NOAEL. The reviewers of the study calculated the dose to be 0.29 mg/kg-day for males and 0.33 mg/kg-day for females based on measured food intake. A LOAEL of 20 ppm (converted to 1.55 mg/kg-day for males) was also established.

An uncertainty factor of 1,000 was used to determine the RfD for gamma-BHC. A factor of 10 each was employed for use of a subchronic assay, to account for interspecies variation and to protect sensitive human subpopulations. A confidence rating of medium is associated with the RfD for gamma-BHC. This rating reflects that the principal study used an adequate number of animals and measured multiple endpoints. There are no inhalation RfD or RfC values currently available. However, a risk assessment for development of an inhalation RfD is under review for this agent. HEAST lists the subchronic oral RfD as 3.0E-03 mg/kg-day.

Gamma-BHC is classified as a Group B2/C Carcinogen. HEAST lists the oral slope factor as 1.3E+00 $(mg/kg\text{-}day)^{-1}$. No inhalation unit risk is given.

1.2.6 Cadmium

Exposure to high levels of cadmium via inhalation severely damages the lungs and can cause death. Inhalation of lower levels for a period of years results in accumulation of cadmium in the kidneys that can cause kidney disease. Long-term exposure to cadmium by inhalation may also cause fragile bones.

Long-term exposure of workers to cadmium via inhalation in an occupational setting may increase the risk of developing lung cancer. Experimental studies indicate that mice and hamsters exposed to cadmium by inhalation do not develop lung cancer; however, rats clearly do. Pregnant female rodents that inhaled high levels of cadmium produced fewer litters and the pups exhibited more birth defects than usual. Inhalation of cadmium also causes liver damage and changes in the immune system in rats and mice. Currently, it is not known whether inhalation of cadmium affects the ability of humans to reproduce or has harmful effects on the fetus, liver, heart, nervous system, or immune system in humans (ATSDR, *Toxicological Profile for Cadmium*, 1992).

Consumption of very high levels of cadmium in food or drink severely irritates the stomach and causes vomiting and diarrhea. Deaths from cadmium ingestion have only been documented in cases of suicide. Similar to exposure via inhalation, ingestion of lower levels of cadmium results in a build-up in the kidneys, resulting in kidney damage and fragile bones. Animals exposed to cadmium through the diet or in water, occasionally develop high blood pressure, iron poor blood, liver disease, and nerve or brain damage. Proof that humans develop these conditions is lacking. Studies in humans and animals have not indicated that eating or drinking cadmium increases the incidence of cancer. Dermal contact with cadmium is not known

to cause adverse health effects in animals or humans (ATSDR, *Toxicological Profile for Cadmium*, 1992).

IRIS lists the oral RfD for cadmium in water as 5.0E-04 mg/kg/day and in food as 1.0E-03 mg/kg/day. The RfD is based on the highest level of cadmium in the human renal cortex (200 μg cadmium/g wet renal cortex) not associated with significant proteinuria, the critical effect of interest. A toxicokinetic model was used to determine the highest level of exposure associated with the lack of a critical effect. An uncertainty factor of 10 was applied to account for intrahuman variability to the toxicity of this chemical in the absence of specific data on sensitive individuals. The level of confidence in the RfD is high because of the many studies available on the toxicity of cadmium in both humans and animals. HEAST lists an additional oral RFD for cadmium in food as 1.0E-03 mg/kg/day. An inhalation RfD and RfC have not been established for cadmium.

USEPA has classified cadmium as a Group B1 - Probable Human Carcinogen. Limited evidence of its carcinogenicity in humans is available from several epidemiologic studies which demonstrated a possible association with lung and prostate cancers. There is also sufficient evidence of cadmium's carcinogenicity in rats and mice by the inhalation route (lung tumors), intratracheal instillation (mammary tumors in female rats, multiple sites in males), and intramuscular or subcutaneous injection (injection site and distant site tumors). USEPA has not established an oral slope factor for cadmium. USEPA has established an inhalation unit risk of 1.8E-03 $(\mu g/m^3)^{-1}$ based primarily on an epidemiologic study of cadmium smelter workers in which an increased risk of lung, trachea, and bronchus cancer mortality was observed. The supporting study used a relatively large cohort and smoking and concurrent arsenic exposures were accounted for in the quantitative analysis for cadmium. HEAST lists a value of 6.1E+00 $(mg/kg/day)^{-1}$ for the inhalation slope-factor.

1.2.7 Chromium

Chromium in soils exists predominantly in the trivalent state (ATSDR, Toxicological Profile for Chromium, 1992). For example, soil samples obtained during a remedial investigation conducted at 42 sites in a county where chromium processing had been ongoing from 1905 to 1971, indicated that the average chromium VI concentration was 2.6% (Paustenbach *et al.*, 1991). In the same study, samples of airborne chromium-contaminated dust were collected at 17 different locations within the county. The outdoor chromium VI concentrations were between 16% and 26% of the total chromium concentrations. In addition, organic matter in soil is expected to convert soluble chromate (chromium VI) to insoluble chromium III oxide (Cr_2O_3) (ATSDR, *Toxicological Profile for Chromium*, 1992). Therefore, for the purposes of this risk assessment, 95% of chromium in soil was considered to be in the trivalent state and the remainder was considered to be hexavalent. Airborne chromium contaminated dust was considered to be comprised of 90% trivalent chromium and 10% hexavalent chromium.

Chromium speciation in water depends on redox potential and pH. Oxygen concentrations in the lagoons were determined using an oxygen meter and were confirmed by the Winkler titration method. Results from both field tests indicated that the water in the lagoons is super saturated with oxygen. Chromium VI predominates under high oxidation conditions, such as those found in the highly eutrophic lakes and lagoons at HAFB. Chromium III predominates under reducing conditions, such as those expected under aquifer conditions. For the purposes of this risk assessment, trivalent chromium was considered to predominate in groundwater while hexavalent chromium was considered to be the primary species in surface waters.

Chromium III

Trivalent chromium (CrIII) is much less toxic and more abundant in nature than the hexavalent form (CrVI). CrVI readily crosses all membranes and is reduced intracellularly

to trivalent chromium. There is no evidence to suggest that CrIII is converted into CrVI in biological systems (Klaassen, *et al.,* 1986). For these reasons, the oral RfD for CrIII is used to estimate risk for ingestion of waterfowl and beef.

Respiratory effects have been observed in workers exposed to chromium III; however, other forms of chromium were present. The respiratory system is the primary target for injury following inhalation exposure in laboratory animals. Rats and mice inhaling various levels of chromium III oxide had increased lung weights, marked hyperplasia, interstitial fibrosis, and epithelial necrosis (ATSDR, Toxicological Profile for Chromium, 1992).

IRIS lists the chronic oral RfD as 1.0E+00 mg/kg/day which is the same value listed in HEAST as the subchronic oral RfD. These values are based upon a chronic feeding study in rats. Even after feeding up to 5% of chromic oxide in the diet for 84 days, no adverse effects were observed at any dose level.

An uncertainty factor of 100 was applied to the oral RfD. This factor accounts for the interhuman and interspecies variability of the toxicity of chromium III. The oral RfD is limited to insoluble salts of chromium III. Confidence in the principal study is rated as low because of a lack of explicit detail on protocol and results. Low confidence in the database reflects the lack of high-dose supporting data. An inhalation risk assessment for CrIII is under review by an USEPA work group.

Chromium III is not believed to be carcinogenic at this time.

<u>Chromium VI</u>

Chromate sensitive workers acutely exposed to chromium VI develop asthma and other signs of respiratory distress. Symptoms include erythema of the face, nasopharyngeal pruritus, nasal blocking, coughing and wheezing. In a retrospective mortality study, intermediate-

to chronic-duration occupational exposure to CrVI showed an increased risk of death due to noncancer respiratory disease. Occupational exposure has also been associated with adverse effects on the gastrointestinal system and severe liver injury. Additionally, chromium VI has been associated with an increased incidence of bronchogenic and nasal cancer following chronic occupational exposure.

IRIS lists a chronic oral RfD for CrVI as 5.0E-03 mg/kg/day. HEAST provides a subchronic oral RfD of 2.0E-02 mg/kg/day. These values are based on a year-long study in rats administered hexavalent and trivalent chromium in drinking water. No significant changes in appearance, weight gain, food consumption, or histologic lesions were observed in any of the treatment groups. An uncertainty factor of 500 accounts for the expected interhuman and interspecies variability in the toxicity of the chemical in lieu of specific data, and an additional factor of 5 to compensate for the less-than-lifetime exposure duration of the principal study. The oral RfD is limited to soluble salts of metallic chromium VI. Confidence in the principal study is low because of the small number of animals tested, the small number of parameters measured, and the lack of toxic effect at the highest dose tested. Confidence in the database is low because the supporting studies are of equally low quality, and teratogenic and reproductive endpoints are not well studied.

Chromium VI is considered to be carcinogenic only by inhalation and is classified as Group A - Human Carcinogen. IRIS lists an inhalation unit risk value of 1.2E-02 $(\mu g/m^3)^{-1}$. The corresponding inhalation slope factor is 4.1E+01 $(mg/kg/day)^{-1}$. The confidence in this unit risk factor is high because there is sufficient epidemiologic evidence in humans supporting this conclusion.

1.2.8 1,1-Dichloroethene

Exposure to high levels of 1,1-Dichloroethene (DCE) in closed areas has resulted in loss of breath, fainting, and nervous system effects such as drunkenness. Studies on human

health have not been extensive. Animal studies have shown that DCE affects the liver, kidney, lungs, heart, and blood at 15 ppm in the air for 5 days. Inhalation of very high levels of DCE for 7 days has caused death. Long-term exposure to DCE in the air at 24 ppm can cause liver damage. Liver damage was also seen in animals that had DCE placed in their stomachs, or provided in drinking water at high levels, for a long period of time. Effects on cancer and reproduction are not known (ATSDR, Toxicological Profile for 1,1-Dichloroethene, 1989).

IRIS lists the oral RfD for 1,1-dichloroethene as 9.0E-03 mg/kg/day, which is also listed in HEAST as the subchronic RfD. This value was based on a chronic study in which rats were administered 50, 100 or 200 ppm 1,1-dichloroethene in drinking water for 2 years. Daily intake was calculated to be 7, 10 or 20 mg/kg/day for males and 9, 14 or 30 mg/kg/day for females. The only pathological finding was hepatic lesions. This finding was noted in all female treatment groups. In males, only the 200 ppm (20 mg/kg/day) treatment groups showed significant increases in hepatocellular swelling although a trend was observed in the 100 ppm (10 mg/kg/day) group. The LOAEL (Lowest Observed Adverse Effect Level) of 9 mg/kg/day for hepatic lesions in female rats was used to calculate the RfD. A NOAEL (No Observed Adverse Effect Level) was not established.

An uncertainty factor of 1000 was used to derive the RfD (10x for use of LOAEL, 10x for interspecies variation and 10x for protection of sensitive subpopulations). The confidence level in the oral RfD is medium, reflecting that there were corroborative chronic and subchronic bioassays performed on two different species. No inhalation values for the RfD or RfC are listed.

EPA has classified 1,1-dichloroethene as Group C - Possible Human Carcinogen. This is based on the observation of tumors in one mouse strain following inhalation exposure and the fact that it is structurally related to the known human carcinogen, vinyl chloride. The human carcinogenicity data were considered inadequate for use in classification of the compound. An

oral slope factor of 6.0E-01 $(mg/kg/day)^{-1}$ and an inhalation unit risk factor of 5.0E-05 $(\mu g/m^3)^{-1}$ are listed in IRIS.

1.2.9 Dieldrin

Upon entry into the environment, aldrin is rapidly converted to dieldrin, its corresponding epoxide. Dieldrin is lipid-soluble and, therefore, it is dieldrin that is stored in adipose tissue of humans and other animals. Aldrin and dieldrin cause similar adverse health effects. No increase in mortality from any cause has been reported in workers who have been employed in the manufacture of dieldrin for more than four years. However, long-term exposure to moderate levels of dieldrin causes headaches, dizziness, irritability, vomiting, or uncontrollable muscle movements. Central nervous system (CNS) excitation culminating in convulsions was the principal toxic effect noted in occupational studies of workers employed in the manufacture or application of dieldrin. Short-term exposure to high levels of dieldrin causes convulsion and kidney damage. Long-term exposures to lower levels may also cause convulsions as a result of dieldrin's potential to accumulate within the body.

The carcinogenic and reproductive/developmental effects of dieldrin in humans are currently unknown. Experimental studies indicate that animals born to mothers that were fed dieldrin do not live long (ATSDR, *Toxicological Profile for Aldrin/Dieldrin*, 1991). One study revealed detectable levels of dieldrin in the human placenta, amniotic fluid, and fetal blood (Polishuk et al., 1977). These results suggest that dieldrin can pass through the human placenta and accumulate in the developing fetus.

The oral RfD for dieldrin is listed in IRIS as 5E-05 mg/kg-day. This value was based on a chronic (2-year) rat feeding study. The critical effect noted in the study was liver lesions. This is the same value given in HEAST for the subchronic oral RfD.

Dieldrin is a Group B2--Probable Human Carcinogen. This is based on the fact that dieldrin is carcinogenic in seven strains of mice when given orally. It is also structurally similar to aldrin, chlordane, heptachlor, heptachlor epoxide, and chlorendic acid, which are tumorgens. The oral slope factor found in IRIS is 1.6E+01 $(mg/kg\text{-}day)^{-1}$ and is the geometric mean of 13 slope factors calculated from liver carcinoma data in both sexes of several strains of mice. IRIS also lists an inhalation unit risk of 4.6E-03 $(\mu g/m^3)^{-1}$, based on oral data.

1.2.10 Ethylbenzene

Little information on the human health effects of long-term exposure to ethylbenzene was found in the available literature. Low levels of ethylbenzene in the air cause irritation of the eyes and throat. Upon exposure to higher levels, persons demonstrate signs of more severe effects such as decreased movement and dizziness. Short-term exposure to high levels of ethylbenzene in air may cause liver and kidney damage, nervous system changes, and changes in the blood of laboratory animals (ATSDR, *Draft Toxicological Profile for Ethylbenzene*, 1989).

No studies have reported death in humans following exposure to ethylbenzene. Studies in laboratory animals do suggest that ethylbenzene can cause death. There is no clear evidence that reproductive effects occur following inhalation, ingestion, or dermal contact with ethylbenzene. Birth defects have occurred in newborn animals when the mothers were exposed to ethylbenzene. These effects become increasingly serious with increasing doses of ethylbenzene. A single long-term study in animals suggested that ethylbenzene caused tumors. However, the study had many weaknesses and conclusions could not be drawn regarding the possible carcinogenic effects in humans (ATSDR, *Draft Toxicological Profile for Ethylbenzene*, 1989).

IRIS listed an oral RfD for ethylbenzene of 1.0E-01 mg/kg-day. This value was based on a subchronic bioassay in which rats were administered 13.6, 136, 408 or 680 mg/kg-day

ethylbenzene by gavage 5 days/week. The LOAEL (Lowest Observed Adverse Effect Level) of 408 mg/kg/day was associated with histopathologic changes in liver and kidney. The NOEL (No Observed Effect Level) established in this study was 136 mg/kg-day (converted to 97.1 mg/kg-day to reflect treatment 7 days/week). Correspondence sent by the Superfund Health Risk Technical Support Center dated April 14, 1994 lists a subchronic oral RfD of 1.0E-01 mg/kg-day (Attachment A).

An uncertainty factor of 1000 (10x each for intraspecies and interspecies variability and 10x for extrapolation of subchronic effect level to its chronic equivalent) was used to derive the RfD. The level of confidence in the RfD is low and reflects the fact that only one sex was tested and that the experiment was not of chronic duration. The inhalation RFC is listed as 1.0E+00 mg/m^3 in IRIS, and HEAST (1992) lists the subchronic RfC as 1.0E+00 mg/m^3.

EPA has classified ethylbenzene as Group D--Not Classifiable as to Human Carcinogenicity. This classification was due to lack of animal bioassays and human studies. Therefore, there is no slope factor at this time.

1.2.11 Heptachlor Epoxide

Upon entering the body, heptachlor is metabolized to heptachlor epoxide and other related chemicals. Heptachlor is a major component of the pesticide chlordane. Information regarding human health effects from exposures to heptachlor is sparse. Tremors and convulsions have been reported in experimental animals exposed orally to high levels of heptachlor for short periods of time. Long-term exposure to heptachlor may adversely affect the liver. Animals fed heptachlor in an experimental setting have been reported to have enlarged livers, liver damage, kidney damage, and increased red blood cell count. Tremors and convulsions have also been reported in animals exposed to heptachlor on a long-term basis (ATSDR, *Toxicological Profile for Heptachlor/Heptachlor Epoxide*, 1991).

Heptachlor epoxide is more harmful than heptachlor, primarily because of its ability to be stored in fat for long periods of time. The other breakdown products of heptachlor epoxide generally are less toxic. Long-term exposure to heptachlor epoxide may adversely affect the liver. Animals fed heptachlor epoxide in an experimental setting have been reported to have enlarged livers, liver damage, kidney damage, and increased red blood cell count.

Placental transfer of heptachlor epoxide has been reported following inhalation exposure. Heptachlor epoxide has also been identified in breast milk. This compound has been detected in stillborn infant brain, adrenal, lung, heart, liver, kidney, spleen, and adipose tissues. However, the studies reporting these findings were limited by lack of data concerning route, duration, extent of exposure, and number of cases examined. No gross malformations were reported in any of the stillborn infants. Although a developing fetus could be exposed to heptachlor epoxide transplacentally, the existing data are inadequate to establish a relationship between exposure and human developmental toxicity (ATSDR, *Toxicological Profile for Heptachlor/Heptachlor Epoxide*, 1991).

The oral RfD for heptachlor epoxide is listed as 1.3E-05 mg/kg-day in IRIS. This value is based on a chronic feeding study conducted in Beagle dogs. Dogs from 23 to 27 weeks of age were fed diets containing 0,0.5, 2.5, 5, or 7.5 ppm of heptachlor epoxide for 60 weeks. The critical effect noted in the study was treatment-related increases in liver-to-body weight ratios. Effects were noted in both males and females and a LEL (Lowest Effect Level) of 0.5 ppm was established. A NOEL (No Observed Effect Level) was not established in this study. An uncertainty factor of 1000 was used to account for inter- and intra-species differences and to account for the fact that a NOEL was not established in the study. The confidence associated with the oral RfD was low, reflecting that the principal study was of low quality and that the database on chronic toxicity is complete but consists of low quality studies. The subchronic RfD listed in HEAST is the same as the chronic RfD (1.3E-05 mg/kg-day) listed in IRIS.

Heptachlor epoxide is classified by EPA as Group B2 - Probable Human Carcinogen. Sufficient evidence exists from rodent studies in which liver carcinomas were induced in two strains of mice of both sexes and in CFN female rats. It is also structurally similar to several other liver carcinogens. There are no published epidemiologic evaluations of heptachlor epoxide. The oral slope factor listed in IRIS is 9.1E+00 $(mg/kg\text{-}day)^{-1}$. An inhalation unit risk of 2.6E-03 $(\mu g/m^3)^{-1}$, which is also found in IRIS, was calculated from oral data.

1.2.12 Methylene Chloride

Based on the results from experimental studies, exposure to methylene chloride vapors may cause irritation of the eyes and damage the cornea. One study reported these effects at 400 ppm, however, the effects usually disappeared within a few days. Inhalation of 300 ppm or greater concentrations of methylene chloride for short periods of time (3-4 hrs), may result in a slight but temporary hearing loss and slight vision impairment. Inhalation of higher concentrations (800 ppm) may result in slowed reaction time, loss of balance and stability, and decreased ability to perform tasks requiring fine motor skills. Longer exposures may cause dizziness, nausea, tingling or numbness of the fingers and toes, and drunkenness. In most cases, these effects disappear upon disruption of exposure. Studies conducted in experimental animals suggest that exposure to higher concentrations (greater than 1,000 ppm) can lead to unconsciousness and death (ATSDR, Draft Toxicological Profile for Methylene Chloride, 1992).

Inhalation of methylene chloride has been reported to cause changes in the liver and kidneys of animals, but similar effects have not been observed in humans. Studies conducted with laboratory animals indicated that inhalation of methylene chloride does not cause birth defects or affect reproduction, even at high concentrations. Methylene chloride has not been associated with cancer in humans exposed to vapors in the workplace. How-ever, inhalation of high concentrations for long periods of time did cause cancer in mice. No information was located in the available literature regarding the effects of methylene chloride in humans following oral exposure. Methylene chloride has resulted in death in rats orally exposed to large quantities over

a short period of time. No information was located on the health effects associated with dermal contact with methylene chloride (ATSDR, Draft Toxicological Profile for Methylene Chloride, 1992)

IRIS lists an oral RfD of 6.0E-02 mg/kg/day. The subchronic RfD listed in HEAST is the same value. This is based on a chronic drinking water bioassay conducted in rats. Rats received 5, 50, 125 or 250 mg methylene chloride per kg/day for 2 years. Histologic alterations of the liver were evident at doses of 50 mg/kg/day or higher. The low dose of 5 mg/kg/day was established as a NOAEL (No Observed Adverse Effect Level).

An uncertainty factor of 100 was applied to account for intra- and interspecies variability to the toxicity in lieu of specific data (10x each). The level of confidence in the oral RfD is medium. This rating reflects that the critical study was well performed but that only a few studies support the NOAEL. Both the subchronic and the chronic RfC values are listed in HEAST as 3E+00 mg/m^3.

EPA has classified methylene chloride as a Group B2 - Probable Human Carcinogen. There is sufficient evidence of carcinogenicity in animals including increased incidence of hepatocellular neoplasms and alveolar/bronchiolar neoplasms in mice, benign mammary tumors in rats, salivary gland sarcomas in male rats and leukemia in female rats. However, the human carcinogenicity data are considered inadequate for use in classifying this compound. IRIS lists the oral slope factor as 7.5E-03 $(mg/kg/day)^{-1}$ and the inhalation unit risk factor as 4.7E-07 $(\mu g/m^3)^{-1}$.

1.2.13 PCB-1242, PCB-1254, and PCB-1260

The most common findings in laboratory animals exposed to sublethal levels of various polychlorinated biphenyl (PCB) mixtures (Aroclors) have been atrophy of primary and secondary lymphoid organs, lowered circulating immunoglobulin levels, and decreased specific

antibody responses following immunization with antigens. Prenatal and adult exposures to PCBs have been reported to depress delayed-type cutaneous hypersensitivity. However, graft-versus-host reactivity, T lymphocyte responses to mitogens, and proliferation of leukocyte responses to mitogens and proliferation of leukocytes are enhanced following PCB exposure. Studies in which animals were challenged with infectious agents indicate that PCBs cause decreased resistance in ducks to hepatitis virus and in mice to challenge with herpes simplex virus, ectromelia virus, *Plasmodium berghei, Listeria monocytogenes,* or *Salmonella typhimurium*. The effect of PCBs on tumor resistance in rodents is unclear but both augmentation and suppression have been reported.

Most of the human toxicity information on PCBs is from the Yusho accident in Japan where PCB-contaminated rice was consumed. PCB-exposed individuals exhibited chloracne and were more susceptible to respiratory infections. In a clinical study of individuals exposed to PCB-contaminated rice oil in China, a decrease in T-cell number and function was observed (Dean et al., 1991).

An oral RfD, inhalation RfD, and inhalation RfC for PCBs have not been established.

PCBs are classified as Group B2 - Probable Human Carcinogens. This is based on hepatocellular carcinomas in 3 strains of rats and in 2 strains of mice. Evidence of liver cancer in humans by ingestion, inhalation or dermal routes is inadequate but suggestive of carcinogenicity. The oral slope factor listed in IRIS (1992) is 7.7E+00 $(mg/kg/day)^{-1}$. This value is used for PCB-1242, PCB-1254 and PCB-1260. No inhalation slope factor is listed.

1.2.14 Trichloroethene

Dermal contact with trichloroethene can cause skin rash. Inhalation of large quantities of trichloroethene may cause dizziness, sleepiness, and ultimately, loss of conscious-

ness. Damage to the nerves of the face have been reported in people exposed to high levels of trichloroethene. Currently it is uncertain whether these people are at a higher risk for developing cancer or birth defects. It has been reported that people who used water from a well contaminated with high concentrations of trichloroethene may have had an increased incidence of leukemia. It is unknown whether trichloroethene affects human reproduction (ATSDR, *Draft Toxicological Profile for Trichloroethene*, 1991).

EPA has not established an oral RfD, inhalation RfD or inhalation RfC. Risk assessments are currently under review by an EPA work group for noncarcinogenic effects resulting from trichloroethene exposure.

Trichloroethene is a Group B2/C - Probable Human Carcinogen/Possible Human Carcinogen. The 1991 HEAST lists an oral slope factor of 1.10E-02 $(mg/kg\text{-}day)^{-1}$, an inhalation unit risk of 1.7E-06 $(\mu g/m^3)^{-1}$, and an inhalation slope factor of 6.0E-03 $(mg/kg\text{-}day)^{-1}$. These values are based on a gavage study in mice in which liver tumors were seen. Debate surrounds the weight-of-evidence classification and, at the present time, the EPA has not adopted a final position. Figure C3-1 is a correspondence sent by the Superfund Health Risk Technical Support Center dated September 20, 1993 with guidance on the appropriate slope factor. The slope factors given in the 1991 HEAST were deemed appropriate for this assessment since the carcinogenic potential from trichloroethene should be considered when calculating risk.

1.3 Uncertainty Associated with Toxicity Information

Toxicity information for many of the chemicals of potential concern in this risk assessment was limited. Therefore, varying degrees of uncertainty are associated with the listed toxicity values. Sources of uncertainty associated with toxicity values used in this risk assessment arise from several sources and reflect on the overall accuracy of this document and the interpretation of the results.

Trichloroethylene (TCE) (CASRN 79-01-6)

The current phase of the carcinogenicity characterization for trichloroethylene started with a July 1985 Health Assessment Document for Trichloroethylene, EPA# 600/8-82/006F which classified trichloroethylene in Weight-of-Evidence Group "B2 - Probable Human Carcinogen". Inhalation and oral upper bound risk estimates were provided. This information was verified on IRIS from 3/87 through 7/89. A June 1987 Addendum to the Health Assessment Document for Trichloroethylene, EPA# 600/8-82/006FA proposed that the Weight-of-Evidence finding of "B2" was further supported by newly available animal bioassay data and offered a minor revision to the inhalation upper bound risk estimate. In 1988 the Agency's Science Advisory Board offered an opinion that the weight-of-evidence was on C-B2 continuum (C=Possible Human Carcinogen, B2=Probable Human Carcinogen). The Agency withdrew the IRIS carcinogenicity file in 7/89 and has not adopted a current position on the weight-of-evidence classification.

The quantitative risk estimates provided in the 1985 Health Assessment Document and 1987 Addendum have been reviewed by the IRIS-Crave Workgroup but are not verified as such pending resolution of the weight-of-evidence classification. The upper bound risk values in these documents are as follows:

ORAL: 1985 HAD; Unit Risk = 3.2E-7 per ug/L
Slope Factor = 1.1E-2 per mg/kg/day

INHALATION: 1987 Addendum; Unit Risk = 1.7E-6 per ug/cu.m.
Slope Factor = 6.0E-3 per mg/kg/day

When the Agency adopts a current position on weight-of-evidence classification, the trichloroethylene file will be reentered on IRIS.

Figure C3-1. Trichloroethylene (TCE)

A primary source of uncertainty results from the use of information obtained from alternate sources when EPA-verified toxicity values are not available or excluding a chemical from analysis because toxicity information does not exist. Greater uncertainty and an underestimation of risk would result if chemicals without verified toxicity values were excluded from the quantitative risk assessment. It is difficult to assign a level of confidence to alternative values, although it is appropriate and necessary to use them.

Physical and chemical descriptions of the exposure atmospheres, amounts to which individuals are exposed, and tissue retention patterns are generally not available for accidental human exposures. Therefore, studies conducted on laboratory animals (under controlled experimental conditions) must, of necessity, be used to provide the exposure, dose, and biological effects data needed to evaluate the toxicity of potentially hazardous materials to which humans may be exposed. However, there are striking differences between laboratory animals and humans in anatomy and physiology. These differences are sources for variation in the toxic responses exhibited between different species. Complicating extrapolations from animals to man are differences in life span, body size, metabolic routes, and rates of exposure. Occasionally adjustments are made, on a case-by-case basis, for species difference in the rate of metabolism or retention within tissues. However, comparisons between species are usually made by use of standardized sizes or weights. These dose terms do not scale-up identically and are in some cases sources of uncertainty themselves.

Another source of uncertainty related to toxicity information is the use of dose-response information from effects observed at high doses to predict adverse health effects that may occur at the low levels to which humans are likely to be exposed in the environment. Sources of uncertainty occur in the EPA potency estimates (slope factors) when they are applied to humans exposed to levels of putative carcinogens far below those administered to laboratory animals under experimental conditions. Many substances induce or enhance cancer in animals through processes for which a possible threshold can be identified. These effects usually only occur at very high doses and assuming that a lesser degree of the same effect occurs at lower doses is not necessarily

an accurate portrayal of toxicity. This assumption may result in gross overestimation of the health risks associated with a particular chemical.

Two major factors that influence toxicity of chemicals are the duration and frequency of exposure. For many agents, the toxic effects following a single exposure are quite different from those produced by repeated and long-term exposures. In general, fractionation of the dose (or exposure) of a chemical reduces its toxicity. Therefore, a single exposure to a substance may produce an immediate severe effect while the same dose divided into multiple exposures may produce an attenuated response or no response at all. Such fractionation effects are generally due to metabolism and/or excretion between successive doses or to partial or full reversal of the injury produced by each exposure prior to the next exposure. Chronic (long-term) toxic effects occur if a chemical accumulates (absorption exceeds excretion), if it produces irreversible toxic effects, or if there is insufficient time for the individual to recover from the injury within the exposure interval. Therefore, use of information obtained from short-term exposure studies to predict health effects in humans exposed on a long-term basis may be a source of uncertainty.

Uncertainties arise when information gathered in studies using homogenous animal population (inbred strains) or healthy human populations (occupational exposures) to predict the effects that are likely to occur in the general human population. Human populations are a heterogenous group with variations in genetic constitution, diet, living environments (previous environmental exposures), activity patterns, and cultural patterns. All of these factors may influence metabolism, distribution of chemicals within the body, and susceptibility to the damaging effects of those chemicals. It is now well established that individuals exposed to several chemicals simultaneously or sequentially may exhibit altered pharmacologic or toxicologic responses. Interactions have been noted with respect to hepatotoxicity. For example, many of the chlorinated solvents induce enzymes in the liver that are involved in metabolism of chemicals. Therefore, an individual that is exposed to these chemicals may experience increased or decreased toxicity subsequent to exposure to other chemicals that undergo metabolism.

Also, it is difficult to ascertain the toxic effects of mixtures due to complex chemical interactions. This uncertainty is inherent to risk assessments where multiple chemicals are involved. Many compounds can be antagonistic, synergistic, or additive but it is virtually impossible to predict the combined effects.

1.4 Summary of Toxicity Assessment

An understanding of the degree of uncertainty associated with toxicity information is an important part of interpreting and using that information to calculate toxicity values. The degree of confidence ascribed to toxicity values depends on both the quality of the critical study from which it was derived and the quantity of supporting data. EPA-verified RfDs published in IRIS are accompanied by a statement of the confidence that the evaluators have in the RfD. A discussion of confidence ratings and EPA's classification as to carcinogenicity are presented below.

Oral RfD values were available for 9 of the 15 individual contaminants of potential concern. All 9 chemicals had oral RfDs published in IRIS or HEAST. Low confidence indicates that the toxicity value may change if additional toxicity data become available. Medium confidence is an indication that a value is less likely to change as more data become available because there is consistency in the results from different studies. Oral RfDs were not available and were not derived for six chemicals of potential concern. Inhalation RfCs were available for three of the contaminants.

Twelve of the 15 contaminants of potential concern have been classified by the EPA as to carcinogenic potential. One chemical was classified as Group D (Not Classifiable as to Human Carcinogenicity), indicating inadequate or no evidence of carcinogenicity. One chemical was assigned to Group C (Possible Human Carcinogens) based on limited evidence of carcinogenicity in animals and inadequate or lack of human data. Two compounds were classified as Group B2/C carcinogens because of the uncertainty surrounding their weight of evidence

classification. Seven were classified as Group B (Probable Human Carcinogen), indicating there is sufficient evidence of the chemical's carcinogenicity in animals and inadequate or no evidence in humans. Two chemicals were classified as Group A (Human Carcinogen).

EPA-derived oral slope factors were available for 10 chemicals of the 15 chemicals of potential concern that have been classified as to their carcinogenicity. The lack of a slope factor for contaminants classified as carcinogens adds a degree of uncertainty to the toxicological evaluation of the risk assessment. Inhalation unit risk factors were available for 10 of the chemicals.

2.0 REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Aldrin/Dieldrin* (Draft). February 1991.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Alpha-, Beta-, Gama-, Delta-Hexachlorocyclohexane*. October 1992.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Arsenic* (Draft). February 1992.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Barium* (Draft). February 1991.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Benzene* (Draft). February 1992.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Benzo(a)Pyrene*. May 1990.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for 1,1-Dichloroethene*. December 1989.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Chromium*. 1992.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Ethylbenzene* (Draft). October 1989.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Heptachlor/Heptachlor Epoxide* (Draft). October 1991.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Methylene Chloride* (Draft). February 1992.

Agency for Toxic Substances and Disease Registry (ATSDR), *Toxicological Profile for Trichloroethene* (Draft). October 1991.

Dean, J.H., Murray, M.J., and Ward, E.C., 1991. Toxic Response of the Immune System in: M.O. Amdur, J.D. Doull, and G.D. Klaassen (Eds.) *Casarett and Doull's Toxicology: The Basic Science of Poisons*, fourth edition, Macmillan Publishing Company, New York, N.Y., p. 269.

Gaines, T.B. "Acute Toxicity of Pesticides." *Toxicology and Applied Pharmacology*. 14:515-534, 1968.

Klassen, C.D., Amdur, M.O., and Doull, J. (eds.). *Casarett and Doull's Toxicology: The Basic Science of Poisons*, third edition. Macmillan Publishing Co., New York, N.Y., 1986.

Paustenbach, D.J. "The Health Hazards Posed by Chromium-Contaminated Soils in Residential and Industrial Areas: Conclusions of an Expert Panel." *Regulatory Toxicology and Pharmacology*. 13:195-222, 1991.

Polishuk Z.W., Wasserman D., Wasserman M., et al. 1977. Organochlorine Compounds in Mother and Fetus During Labor. *Environ Res* 13:278-284.

U.S. Environmental Protection Agency (EPA), 1989. *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A)*. EPA/540/1-89/002. Office of Emergency and Remedial Response, Washington, D.C. 1989.

U.S. Environmental Protection Agency (EPA), 1991. *Health Effects Assessment Summary Tables (HEAST)*. Annual FY-1991. Office of Research and Development. OERR-9200.6-303 (91-1). January 1991.

U.S. Environmental Protection Agency (EPA), 1992a. *Health Effects Assessment Summary Tables* (HEAST). Annual FY-1992. Office of Research and Development. OERR-9200.6-303 (92-2). March 1992.

U.S. Environmental Protection Agency (EPA), 1992b. Integrated Risk Information System (IRIS). January 1992.

U.S. Environmental Protection Agency (EPA), 1993a. *Drinking Water Regulations and Health Advisories*. May 1993.

U.S. Environmental Protection Agency (EPA), 1993b. *Health Effects Assessment Summary Tables (HEAST)*. Annual FY-1993. Office of Research and Development. OERR-9200.6-303 (93-1). March 1993.

U.S. Environmental Protection Agency (EPA), 1994. Integrated Risk Information System (IRIS). April 1994.

Wang, Rhode G., James B. Knaak, Howard I. Maibach. 1993. *Health Risk Assessments, Dermal and Inhalation Exposure and Absorption of Toxicants*. CRC Press, Boca Raton, Florida.

Risk Assessment Issue Paper for:
Derivation of a Provisional Subchronic Oral RfD
for Ethylbenzene (CASRN 100-41-4)

Risk Assessment Issue Paperfor:
Derivation of a Provisional Subchronic Oral RfD
for Ethylbenzene (CASRN 100-41-4)

PRINCIPAL STUDY

Groups of 10 female Wistar-derived rats were given 13.6, 136, 408 or 680 mg/kg of ethylbenzene (purity greater than 98%) by gavage in olive oil, 5 days per week for 6 months (expanded doses of 9.7, 97, 291 and 486 mg/kg-day) (Wolf, M.A. et al., 1956). A group of 20 vehicle-treated rats served as controls. Rats were observed frequently throughout the exposure period and weighed at regular intervals. Hematological examinations were performed on selected animals after 20, 40, 80 and 130 doses. Upon sacrifice, the lungs, heart, liver and kidneys of all rats were examined grossly, weighed and prepared for histopathological examination. Additional tissues taken for histopathological examination were the adrenals, pancreas and femoral bone marrow. Blood urea nitrogen was determined from selected animals at autopsy. Rats exposed to 291 and 486 mg/kg-day had slight, statistically significant increases in liver weight and kidney weight. The weight changes were accompanied by mild histopathological lesions in both the liver (cloudy swelling of hepatocytes) and the kidney (cloudy swelling of the renal tubular epithelium). No other effects were reported at any dose.

ADDITIONAL STUDIES

Wolf et al. (1956) also conducted inhalation studies. Groups of 10-25 male and female rats, 5-10 male and female guinea pigs, 1-2 male and female rabbits and 1-2 male and female rhesus monkeys were exposed to 400, 600, 1250 or 2200 ppm of ethylbenzene vapor, 7 hours per day 5 days per week for up to 6 months. Rats proved to be the most sensitive species, and the effects were similar to those observed following oral exposure. At 400 and 600 ppm, liver and kidney weights were significantly elevated. At 1250 and 2200 ppm, the weight changes in these organs were accompanied by mild histopathological lesions (cloudy swelling of hepatocytes in the liver and tubular epithelium in the kidney), as well as significantly reduced body weight gain.

Other inhalation studies confirmed the effects of ethylbenzene on liver and kidney weight, but did not detect histopathological lesions. Cragg et al. (1989) exposed rats, mice and rabbits (5/species/sex/group) to 0, 99 (rats and mice only), 382, 782 or 1610 (rabbits only) ppm of ethylbenzene vapor, 6 hours per day 5 days per week for 4 weeks. The study included hematology and clinical chemistry analyses, urinalysis and histopathological examination of over 30 tissues, although not all analyses were performed in each species.

The most noteworthy effect observed was significantly increased absolute and/or relative liver weight in male and female rats exposed to 382 and 782 ppm and male and female mice exposed to 782 ppm. The increased liver weight was not, however, accompanied by histopathological changes in the liver or serum chemistry changes indicative of liver damage. Other effects reported were sporadic incidences of salivation and lacrimation in rats exposed to 382 and 782 ppm, and slightly increased leukocyte and platelet counts in rats exposed to 782 ppm.

Similar results were obtained by NTP (1992) in a study in which groups of 20 rats/sex and 10 mice/sex were exposed to 0, 100, 250, 500, 750 or 1000 ppm of ethylbenzene vapor 6 hours/day 5 days/week for up to 3 months. Liver and kidney weights were significantly increased in both species (minimum effective concentration = 250 ppm in rats and 750 ppm in mice), but without corresponding histopathological lesions or clinical chemistry changes (decreased serum alkaline phosphatase found in male and female rats throughout the study is of unknown toxicological significance). Body weight gain was 5-7% lower in male rats exposed to 1000 ppm than controls, but the difference was not statistically significant. The only other observation of note was the presence of mild inflammatory lesions in the lungs of most rats exposed to 250-1000 ppm, and corresponding increases in lung weight in these groups. The lesions were not considered to be treatment-related by the researchers because their morphologic appearance and anatomic distribution were typical of response to an infectious agent (although antibodies to common rodent respiratory tract viruses were not detected) and no dose response in severity was seen.

The occurrence of liver weight increases in the absence of accompanying histopathology in the Cragg et al. (1989) and NTP (1992) studies might have been due to adaptive induction of hepatic mixed function oxidases rather than toxicity. Elovaara et al. (1985) reported concentration-related increases in the activities of drug-metabolizing enzymes in both the liver and kidney of rats exposed to 50-600 ppm of ethylbenzene vapor for 2-16 weeks. Ultrastructural changes consistent with enzyme induction (e.g. proliferation of smooth endoplasmic reticulum) were also observed.

Developmental toxicity studies of ethylbenzene were also conducted using inhalation exposure. Rats and rabbits were exposed to 0, 100 or 1000 ppm of ethylbenzene vapor throughout gestation (Andrew et al., 1981; Hardin et al., 1981). Some of these rats had already been exposed to ethylbenzene for 3 weeks prior to mating, so that there were a total of 7 treatment groups for this species: air-air, air-low, air-high, low-air, low-low, high-air and high-high. The only effects in maternal rats were significant increases in liver, kidney and spleen weight (without corresponding histopathology) in the air-high and high-high groups. Developmental toxicity in rats was suggested by significant increases in the incidences of minor skeletal anomalies (i.e., rudimentary ribs and supernumerary ribs) in the air-high, high-high and air-low groups. In addition, crown-rump length was significantly decreased in the air-high group. Although fertility was significantly reduced in rats exposed to ethylbenzene prior to mating compared to those not exposed prior to mating, it did not differ between the low- and high-dose groups and the decrease probably was not chemical-related. In rabbits, the only maternal effect was a significant increase in liver weight in the

high-dose group (absent any histopathological changes). The only indication of a developmental effect was a slight, statistically significant decrease in the number of live fetuses/litter in both the low and high-dose groups that was not, however, matched by changes in the number of implantations per litter or the number of dead or resorbed fetuses/litter, and probably was not chemical-related.

Somewhat similar results were obtained by Ungvary and Tatrai (1985). In this study, the incidence of extra ribs was increased in the offspring of rats exposed to 2400 mg/m^3 (550 ppm) during gestation, but not lower concentrations. Anomalies of the "uropoietic apparatus" were also increased at this dose level. Effects seen at 600 and 1200 mg/m^3 (138 and 275 ppm), as well as 2400 mg/m^3, were increased postimplantation loss and "skeletal retardation" of fetuses. There was reported to be moderate dose-dependent toxicity in the dams, but no further details were provided. In rabbits, 500 mg/m^3 (115 ppm) produced a significant decrease in the weight of female fetuses in the absence of maternal toxicity. Exposure to 1000 mg/m^3 (230 ppm), which produced reduced body weight gain in dams, lead to abortion in all 3 dams tested. Mice were also tested in this study. The only effect in this species was an increased incidence of anomalies of the "uropoietic apparatus" at 500 mg/m^3.

DERIVATION OF THE SUBCHRONIC RfD

Wolf et al. (1956)identified a NOAEL of 136 mg/kg and a LOAEL of 408 mg/kg for the following effects: liver and kidney lesions. This study was used to derive the subchronic RfD. The NOAEL was converted as follows:

NOAEL of 136 mg/kg is adjusted for a daily dose:

$$\begin{aligned} \text{NOAEL} &= 136 \text{ mg/kg} \times 5 \text{ days}/7 \text{ days} \\ &= 97 \text{ mg/kg-day} \end{aligned}$$

The NOAEL of 97 mg/kg-day was divided by an uncertainty factor of 1000 (10 for extrapolation from rats to humans, 10 to protect sensitive subpopulations and 10 to reflect deficiencies in the data base: lack of an oral study in a second species, an oral two-generation reproduction study and oral developmental toxicity studies in two species) to yeild a provisional subchronic RfD of 1E-1 mg/kg-day.

Confidence in the principal study is low because the study was performed using only female rats, group sizes were small and results were not reported in detail (no data were shown, and the incidence of histopathological lesions was not compared to controls statistically). Confidence in the data base is low because no other oral toxicity studies were located. Low confidence in the subchronic RfD follows.

REFERENCES

Andrew, F.D., R.L. Buschbom, W.C. Cannon et al. 1981. Teratologic assessment of ethylbenzene and 2-ethoxyethanol. Battelle Pacific Northwest Laboratory, Richland, WA. NTIS PB83-208074.

Cragg, S.T., E.A. Clarke, I.W. Daly, R.R. Miller, J.B. Terrill and R.E. Quellette. 1989. Subchronic inhalation toxicity of ethylbenzene in mice, rats, and rabbits. Fundam. Appl. Toxicol. 13: 399-408.

Elovaara, E., K. Engstrom, J. Nickels, A. Aito and H. Vaino. 1985. Biochemical and morphological effects of long-term inhalation exposure of rats to ethylbenzene. Xenobiotica. 15(4): 299-308.

Hardin, B.D., G.P. Bond, M.R. Sikov, F.D. Andrew, R.P. Beliles and R.W. Niemeier. 1981. Testing of selected workplace chemicals for teratogenic potential. Scand. J. Work Environ. Health. 7(suppl 4): 66-75.

NTP (National Toxicology Program). 1992. Toxicity studies of ethylbenzene in F344/N rats and B6C3F1 mice (inhalation studies). Research Triangle Park, NC. March, 1992. NTP TOX 10. NIH Publ. No. 92-3129. U.S. Dept. Health and Human Services, PHS, NIH.

Ungvary, G. and E. Tatrai. 1985. On the embryotoxic effects of benzene and its alkyl derivatives in mice, rats, and rabbits. Arch. Toxicol. Suppl 8: 425-430.

U.S. EPA. 1980. Ambient Water Quality Criteria for Ethylbenzene. Prepared by the Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH for the Office of Water Regulations and Standards, Washington, D.C. EPA 440/5-80-048. NTIS PB81-117590.

U.S. EPA. 1984. Health Effects Assessment for Ethylbenzene. Prepared by the Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH for the Office of Emergency and Remedial Response, Washington, D.C. EPA 540/1-86-008. NTIS PB86-134194.

U.S. EPA. 1985. Drinking Water Criteria Document for Ethylbenzene. Prepared by the Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH for the Office of Drinking Water, Washington, D.C. Final Draft. ECAO-CIN-430.

U.S. EPA. 1986. Health and Environmental Effects Profile for Ethylbenzene. Prepared by the Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH for the Office of Solid Waste and Emergency Response, Washington, D.C. Final Draft. ECAO-CIN-P168.

Wolf, M.A., V.K. Rowe, D.D. McCollister, R.L. Hollingsworth and F. Oyen. 1956. Toxicological studies of certain alkylated benzenes and benzene. Arch. Ind. Health. 14: 387-398.

ATTACHMENT C-4

Risk Characterization Methodology and Risk Model Output

1.0 RISK CHARACTERIZATION METHODOLOGY

Risk characterization combines the possible exposure pathways and subsequent estimated chemical intakes with the appropriate toxicity values to form quantitative and qualitative expressions of potential health risk. Measured contaminant exposure levels as well as levels predicted after fate and transport modeling are compared to chemical-specific toxicity information to determine if current or future levels of contamination, at or near the site, warrant concern for human health. The following subsections briefly describe the methodology used to estimate risk. Each site-specific assessment presents the noncarcinogenic and carcinogenic risk estimates for each exposure scenario. The exposure and risk model output tables are presented here.

1.1 Carcinogenic Effects

For all carcinogens, probabilities that an individual will develop cancer after a lifetime of exposure are estimated from projected exposure and the cancer slope factor. Exposure is quantified as the amount of a chemical available at the exchange boundary (i.e., skin, lungs, etc.) and available for absorption. The carcinogenic risk is calculated for each exposure scenario by the following equation:

$$\text{Risk} = \text{Exposure} \times \text{Slope Factor}$$

The cancer slope factor converts estimated daily intakes directly to an estimate of incremental risk. Because the slope factor is often an upper 95th percentile confidence limit of the probability of response based on experimental animal data and an assumption of linearity in the low-dose portion of dose-response curves, the carcinogenic risk estimate will generally be an upper-bound estimate. This means the "true risk" probability will not exceed the risk estimates generated for this assessment and is likely to be less than the predicted risk (EPA, 1991a). When assessing risk from exposure via inhalation, unit risk factors were used instead of slope factors.

Unit risk factors are toxicity values used to describe carcinogenic effects in terms of risk per unit concentration of the substance in the medium where human contact occurs.

The acceptable range for carcinogenic risk according to the EPA Superfund site remediation goal set forth in the National Contingency Plan (NCP) is 10^{-4} (1 in 10,000) to 10^{-6} (1 in 1,000,000). This range was derived to be protective of human health.

1.2 Noncarcinogenic Effects

For noncarcinogens, comparisons are made between projected exposure of a chemical over a specified time period and its toxicity values, primarily a reference dose (RfD) or a reference concentration in air (RfC) derived for a similar exposure period. The hazard index (HI) is calculated for each exposure scenario by the following equation:

$$HI = \text{Exposure/RfD or RFC}$$

The ratio of exposure to toxicity value is the hazard index. However, the HI is not a statistical probability of a noncarcinogenic effect occurring and should not be interpreted as such. If the exposure level exceeds the appropriate toxicity value (i.e., if HI > 1), there may be concern for potential noncarcinogenic effects.

1.3 Combining Risks Associated with Chemicals and Exposure Pathways

For each scenario addressed in this risk assessment, the estimated carcinogenic risk for potential carcinogens is generated on a chemical by chemical basis for each relevant pathway of exposure. The estimated risk is then summed for each chemical associated with a specific pathway to determine total risk by pathway. To determine the total exposure scenario risk, total risks for all pathways are summed.

The total risk number assumes that different carcinogens affect the same target organ to produce a cancer response, ignoring potential antagonistic or synergistic effects or disparate effects on different target organs. It also assumes that the single individual in the exposure scenario is exposed to site-related contaminants at estimated exposure concentrations by all pathways which make up the scenario. The scenarios were constructed to include all potential pathways of exposure; it is possible for a single individual to be exposed by all pathways in a scenario.

Likewise, the estimated hazard index for noncarcinogenic effects is generated on a chemical by chemical basis for each relevant pathway of exposure. The hazard index is then summed for each chemical associated with a specific pathway to determine the hazard index by pathway. The hazard indices for all pathways are finally summed to determine the total hazard index for the exposure scenario.

If the total hazard index for a scenario is greater than one, indicating a potential cause for concern, it is sometimes appropriate to segregate the hazard index by critical effect and mechanism of action and sum the hazard quotients only for chemicals that affect the same target organ (EPA, 1991a). If the hazard index, summed for all relevant pathways of exposure but segregated by target organ, is less than one, there is less cause for concern about potential noncarcinogenic effects.

Pathway and Chemical-Specific Risk Estimates

IRP Site 16

(SWMUs 118, 132, and AOC-A)

Risk Summary Table
SWMU 118/132/AOC-A

Summary of Cancer Risks by Scenario		
Chronic Exposure		
Scenario	Average	Reas. Max.
Subchronic Construction Worker, future	3.02E-08	1.19E-07
Residential Adult, present	4.23E-10	3.07E-09
Residential Adult, future	4.23E-10	1.48E-10
Summary of Non-Cancer Risks by Scenario		
Scenario	Average	Reas. Max.
Subchronic Construction Worker, future	3.15E-02	2.30E-01
Recreational Child On-Site, present	1.04E-02	7.56E-02
Recreational Child On-Site, future	1.04E-02	7.56E-02
Residential Adult, present	2.22E-13	6.11E-13
Residential Adult, future	2.22E-13	6.11E-13
Residential Child, present	2.22E-13	6.11E-13
Residential Child, future	2.22E-13	6.11E-13

Potential Carc[illegible]nic Risk
SWMU 118/132/AOC-A

Average Cancer Risk					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
alpha-BHC	7.90E-13	3.54E-11	3.25E-11	6.87E-11	0.227
Dieldrin	3.53E-12	1.57E-10	2.81E-10	4.42E-10	1.46
gamma-BHC	0.00E+00	9.80E-12	8.84E-12	1.86E-11	0.0616
Heptachlor epoxide	8.06E-11	3.61E-09	5.40E-09	9.08E-09	30
Methylene chloride	6.18E-15	1.26E-12	5.64E-12	6.91E-12	0.0228
PCB-1260	0.00E+00	8.27E-09	1.24E-08	2.1E-08	68.2
Total by pathway	8.50E-11	1.21E-08	1.81E-08		
% Contribution by pathway	0.281	39.9	59.8		
Scenario Total				3.02E-08	
Reas. Max. Cancer Risk					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
alpha-BHC	7.76E-12	2.43E-10	2.24E-10	4.75E-10	0.397
Dieldrin	3.33E-11	1.04E-09	1.86E-09	2.93E-09	2.46
gamma-BHC	0.00E+00	6.27E-11	5.66E-11	1.19E-10	0.0999
Heptachlor epoxide	8.41E-10	2.63E-08	3.94E-08	6.66E-08	55.8
Methylene chloride	2.40E-14	4.76E-12	2.13E-11	2.61E-11	0.0218
PCB-1260	0.00E+00	1.98E-08	2.95E-08	4.9E-08	41.3
Total by pathway	8.82E-10	4.75E-08	7.11E-08		
% Contribution by pathway	0.738	39.7	59.5		
Scenario Total				1.19E-07	
Average Cancer Risk					
Residential Adult, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
alpha-BHC	3.93E-12	3.93E-12	0.93		
Dieldrin	1.76E-11	1.76E-11	4.15		
Heptachlor epoxide	4.02E-10	4.02E-10	94.9		
Methylene chloride	4.02E-17	4.02E-17	0.0000095		
Total by pathway	4.23E-10				
% Contribution by pathway	100				
Scenario Total		4.23E-10			

Potential Carcinogenic Risk
SWMU 118/132/AOC-A

Reas. Max. Cancer Risk					
Residential Adult, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
alpha-BHC	2.70E-11	2.70E-11	0.88		
Dieldrin	1.16E-10	1.16E-10	3.78		
Heptachlor epoxide	2.93E-09	2.93E-09	95.3		
Methylene chloride	1.11E-16	1.11E-16	0.00000361		
Total by pathway	3.07E-09				
% Contribution by pathway	100				
Scenario Total		3.07E-09			
Average Cancer Risk					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
alpha-BHC	3.93E-12	3.93E-12	0.93		
Dieldrin	1.76E-11	1.76E-11	4.15		
Heptachlor epoxide	4.02E-10	4.02E-10	94.9		
Methylene chloride	4.02E-17	4.02E-17	0.0000095		
Total by pathway	4.23E-10				
% Contribution by pathway	100				
Scenario Total		4.23E-10			
Reas. Max. Cancer Risk					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
alpha-BHC	2.70E-11	2.70E-11	18.3		
Dieldrin	1.16E-10	1.16E-10	78.6		
Heptachlor epoxide	4.68E-12	4.68E-12	3.16		
Methylene chloride	1.11E-16	1.11E-16	0.0000749		
Total by pathway	1.48E-10				
% Contribution by pathway	100				
Scenario Total		1.48E-10			

Potential Noncar[illegible]genic Risk
SWMU 118/1[illegible]2/AOC-A

Average Non-Cancer Hazard Index Summary					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Dieldrin	0.00E+00	8.08E-05	1.45E-04	2.26E-04	0.715
gamma-BHC	0.00E+00	1.03E-05	9.33E-06	1.97E-05	0.0624
Heptachlor epoxide	0.00E+00	1.26E-02	1.87E-02	3.13E-02	99.2
Methylene chloride	1.80E-09	1.15E-06	5.16E-06	6.3E-06	0.02
Total by pathway	1.80E-09	1.26E-02	1.89E-02		
% Contribution by pathway	0.00000572	40.1	59.9		
Scenario Total				3.15E-02	
Reas. Max. Non-Cancer Hazard Index Summary					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Dieldrin	0.00E+00	5.34E-04	9.58E-04	1.49E-03	0.648
gamma-BHC	0.00E+00	6.62E-05	5.97E-05	0.00013	0.0547
Heptachlor epoxide	0.00E+00	9.17E-02	1.37E-01	2.29E-01	99.3
Methylene chloride	7.00E-09	4.35E-06	1.95E-05	2.4E-05	0.0104
Total by pathway	7.00E-09	9.23E-02	1.38E-01		
% Contribution by pathway	0.00000304	40.1	59.9		
Scenario Total				0.23	
Average Non-Cancer Hazard Index Summary					
Recreational Child On-Site, present					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Dieldrin	0.00E+00	3.74E-05	3.46E-05	7.20E-05	0.695
gamma-BHC	0.00E+00	4.79E-07	2.23E-07	7.01E-07	0.00677
Heptachlor epoxide	0.00E+00	5.81E-03	4.47E-03	1.03E-02	99.3
Methylene chloride	1.77E-11	9.49E-08	2.19E-07	3.1E-07	0.00303
Total by pathway	1.77E-11	5.85E-03	4.51E-03		
% Contribution by pathway	0.000000171	56.5	43.5		
Scenario Total				1.04E-02	

Potential Noncarcinogenic Risk
SWMU 118/132/AOC-A

Reas. Max. Non-Cancer Hazard Index Summary					
Recreational Child On-Site, present					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Dieldrin	0.00E+00	2.47E-04	2.29E-04	4.76E-04	0.63
gamma-BHC	0.00E+00	3.07E-06	1.43E-06	4.49E-06	0.00594
Heptachlor epoxide	0.00E+00	4.25E-02	3.27E-02	7.51E-02	99.4
Methylene chloride	4.87E-11	2.62E-07	6.04E-07	8.7E-07	0.00115
Total by pathway	4.87E-11	4.27E-02	3.29E-02		
% Contribution by pathway	6.44E-08	56.5	43.5		
Scenario Total				7.56E-02	
Average Non-Cancer Hazard Index Summary					
Recreational Child On-Site, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Dieldrin	0.00E+00	3.74E-05	3.46E-05	7.20E-05	0.695
gamma-BHC	0.00E+00	4.79E-07	2.23E-07	7.01E-07	0.00677
Heptachlor epoxide	0.00E+00	5.81E-03	4.47E-03	1.03E-02	99.3
Methylene chloride	9.94E-11	5.34E-07	1.23E-06	1.8E-06	0.0171
Total by pathway	9.94E-11	5.85E-03	4.51E-03		
% Contribution by pathway	0.000000959	56.5	43.5		
Scenario Total				1.04E-02	
Reas. Max. Non-Cancer Hazard Index Summary					
Recreational Child On-Site, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Dieldrin	0.00E+00	2.47E-04	2.29E-04	4.76E-04	0.63
gamma-BHC	0.00E+00	3.07E-06	1.43E-06	4.49E-06	0.00594
Heptachlor epoxide	0.00E+00	4.25E-02	3.27E-02	7.51E-02	99.4
Methylene chloride	2.70E-10	2.02E-06	4.66E-06	6.7E-06	0.00882
Total by pathway	2.70E-10	4.27E-02	3.29E-02		
% Contribution by pathway	0.000000357	56.5	43.5		
Scenario Total				7.56E-02	

Potential Nonca ›genic Risk
SWMU 118/132/AOC-A

Average Non-Cancer Hazard Index Summary					
Residential Adult, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	2.22E-13	2.22E-13	100		
Total by pathway	2.22E-13				
% Contribution by pathway	100				
Scenario Total		2.22E-13			
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Adult, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	6.11E-13	6.11E-13	100		
Total by pathway	6.11E-13				
% Contribution by pathway	100				
Scenario Total		6.11E-13			
Average Non-Cancer Hazard Index Summary					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	2.22E-13	2.22E-13	100		
Total by pathway	2.22E-13				
% Contribution by pathway	100				
Scenario Total		2.22E-13			
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	6.11E-13	6.11E-13	100		
Total by pathway	6.11E-13				
% Contribution by pathway	100				
Scenario Total		6.11E-13			

Potential Noncarcinogenic Risk
SWMU 118/132/AOC-A

Average Non-Cancer Hazard Index Summary					
Residential Child, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	2.22E-13	2.22E-13	100		
Total by pathway	2.22E-13				
% Contribution by pathway	100				
Scenario Total		2.22E-13			
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Child, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	6.11E-13	6.11E-13	100		
Total by pathway	6.11E-13				
% Contribution by pathway	100				
Scenario Total		6.11E-13			
Average Non-Cancer Hazard Index Summary					
Residential Child, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	2.22E-13	2.22E-13	100		
Total by pathway	2.22E-13				
% Contribution by pathway	100				
Scenario Total		2.22E-13			
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Child, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Methylene chloride	6.11E-13	6.11E-13	100		
Total by pathway	6.11E-13				
% Contribution by pathway	100				
Scenario Total		6.11E-13			

IRP Site 36

(SWMUs 129 and 178)

Risk Summary Table
SWMU 129/178

Summary of Cancer Risks by Scenario		
Scenario	Average	Reas. Max.
On-Site Worker, present	2.58E-07	3.92E-07
On-Site Worker, Future	2.58E-07	3.92E-07
Subchronic Construction Worker, future	3.41E-10	5.17E-10
Recreational Adult On-Site, present	1.68E-07	6.73E-07
Recreational Adult On-Site, future	1.68E-07	6.73E-07
Summary of Non-Cancer Risks by Scenario		
Scenario	Average	Reas. Max.
On-Site Worker, present	0.00E+00	0.00E+00
On-Site Worker, Future	0.00E+00	0.00E+00
Subchronic Construction Worker, future	0.00E+00	0.00E+00
Recreational Adult On-Site, present	0.00E+00	0.00E+00
Recreational Adult On-Site, future	0.00E+00	0.00E+00
Recreational Child On-Site, present	0.00E+00	0.00E+00
Recreational Child On-Site, future	0.00E+00	0.00E+00

Potential Carci. ·enic Risk
SWMU 129/178

Average Cancer Risk					
On-Site Worker, present					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	1.26E-08	1.84E-07	6.17E-08	2.58E-07	100
Trichloroethylene	1.26E-12	2.79E-11	2.50E-11	5.4E-11	0.021
Total by pathway	1.26E-08	1.84E-07	6.18E-08		
% Contribution by pathway	4.87	71.2	23.9		
Scenario Total				2.58E-07	
Reas. Max. Cancer Risk					
On-Site Worker, present					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	3.88E-08	2.64E-07	8.89E-08	3.92E-07	100
Trichloroethylene	3.46E-12	3.56E-11	3.19E-11	7.1E-11	0.0181
Total by pathway	3.88E-08	2.65E-07	8.89E-08		
% Contribution by pathway	9.88	67.4	22.7		
Scenario Total				3.92E-07	
Average Cancer Risk					
On-Site Worker, Future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	1.26E-08	1.84E-07	6.17E-08	2.58E-07	100
Trichloroethylene	1.26E-12	2.79E-11	2.50E-11	5.4E-11	0.021
Total by pathway	1.26E-08	1.84E-07	6.18E-08		
% Contribution by pathway	4.87	71.2	23.9		
Scenario Total				2.58E-07	
Reas. Max. Cancer Risk					
On-Site Worker, Future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	3.88E-08	2.64E-07	8.89E-08	3.92E-07	100
Trichloroethylene	3.46E-12	3.56E-11	3.19E-11	7.1E-11	0.0181
Total by pathway	3.88E-08	2.65E-07	8.89E-08		
% Contribution by pathway	9.88	67.4	22.7		
Scenario Total				3.92E-07	

Potential Carcinogenic Risk
SWMU 129/178

Average Cancer Risk					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	4.10E-11	2.25E-10	7.56E-11	3.41E-10	100
Trichloroethylene	4.13E-15	3.41E-14	3.05E-14	6.9E-14	0.0201
Total by pathway	4.10E-11	2.25E-10	7.56E-11		
% Contribution by pathway	12	65.8	22.1		
Scenario Total				3.41E-10	
Reas. Max. Cancer Risk					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	8.43E-11	3.24E-10	1.09E-10	5.17E-10	100
Trichloroethylene	7.53E-15	4.36E-14	3.90E-14	9E-14	0.0174
Total by pathway	8.43E-11	3.24E-10	1.09E-10		
% Contribution by pathway	16.3	62.6	21.1		
Scenario Total				5.17E-10	
Average Cancer Risk					
Recreational Adult On-Site, present					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	3.02E-09	1.38E-07	2.74E-08	1.68E-07	100
Trichloroethylene	3.03E-13	2.09E-11	1.11E-11	3.2E-11	0.0192
Total by pathway	3.02E-09	1.38E-07	2.74E-08		
% Contribution by pathway	1.79	81.9	16.3		
Scenario Total				1.68E-07	
Reas. Max. Cancer Risk					
Recreational Adult On-Site, present					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	1.21E-08	5.51E-07	1.10E-07	6.73E-07	100
Trichloroethylene	1.08E-12	7.42E-11	3.93E-11	1.2E-10	0.017
Total by pathway	1.21E-08	5.51E-07	1.10E-07		
% Contribution by pathway	1.79	81.9	16.3		
Scenario Total				6.73E-07	

Potential Carc enic Risk
SWMU 129/178

Average Cancer Risk					
Recreational Adult On-Site, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	3.02E-09	1.38E-07	2.74E-08	1.68E-07	100
Trichloroethylene	3.03E-13	2.09E-11	1.11E-11	3.2E-11	0.0192
Total by pathway	3.02E-09	1.38E-07	2.74E-08		
% Contribution by pathway	1.79	81.9	16.3		
Scenario Total				1.68E-07	
Reas. Max. Cancer Risk					
Recreational Adult On-Site, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
Benzo(a)pyrene	1.21E-08	5.51E-07	1.10E-07	6.73E-07	100
Trichloroethylene	1.08E-12	7.42E-11	3.93E-11	1.2E-10	0.017
Total by pathway	1.21E-08	5.51E-07	1.10E-07		
% Contribution by pathway	1.79	81.9	16.3		
Scenario Total				6.73E-07	

IRP Site 47

(SWMUs 21/22/123 and 54/55)

Risk Summary Table
SWMU 54/55 and 21/22/123

Summary of Cancer Risks by Scenario		
Scenario	Average	Reas. Max.
On-Site Worker, present	1.80E-07	3.09E-07
On-Site Worker, Future	5.35E-06	1.00E-05
Subchronic Construction Worker, future	1.23E-08	2.34E-08
Residential Adult, present	1.28E-10	1.54E-10
Residential Adult, future	7.52E-11	1.03E-10
Summary of Non-Cancer Risks by Scenario		
Scenario	Average	Reas. Max.
On-Site Worker, present	0.00E+00	0.00E+00
On-Site Worker, Future	1.06E-05	2.97E-05
Subchronic Construction Worker, future	9.71E-03	1.23E-02
Residential Adult, present	0.00E+00	0.00E+00
Residential Adult, future	2.70E-12	5.29E-12
Residential Child, present	0.00E+00	0.00E+00
Residential Child, future	2.70E-12	5.29E-12

Potential Carci enic Risk
SWMU 54/55 a 21/22/123

Average Cancer Risk					
On-Site Worker, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Arsenic	1.58E-07	1.58E-07	87.8		
Cadmium (dust)	2.18E-08	2.18E-08	12.2		
Total by pathway	1.80E-07				
% Contribution by pathway	100				
Scenario Total		1.80E-07			
Reas. Max. Cancer Risk					
On-Site Worker, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Arsenic	2.71E-07	2.71E-07	87.8		
Cadmium (dust)	3.75E-08	3.75E-08	12.2		
Total by pathway	3.09E-07				
% Contribution by pathway	100				
Scenario Total		3.09E-07			
Average Cancer Risk					
On-Site Worker, Future					
	Inhalation of Fugitive Dust	Total	% Contrib		
1,1-Dichloroethylene	8.62E-09	8.62E-09	0.161		
Arsenic	4.69E-06	4.69E-06	87.6		
Benzene	6.32E-09	6.32E-09	0.118		
Cadmium (dust)	6.49E-07	0.000000649	12.1		
Total by pathway	5.35E-06				
% Contribution by pathway	100				
Scenario Total		5.35E-06			

Potential Carcinogenic Risk
SWMU 54/55 and 21/22/123

Reas. Max. Cancer Risk					
On-Site Worker, Future					
	Inhalation of Fugitive Dust	Total	% Contrib		
1,1-Dichloroethylene	2.22E-08	2.22E-08	0.222		
Arsenic	8.06E-06	8.06E-06	80.6		
Benzene	1.88E-08	1.88E-08	0.188		
Cadmium (dust)	1.90E-06	0.0000019	19		
Total by pathway	1.00E-05				
% Contribution by pathway	100				
Scenario Total		1.00E-05			
Average Cancer Risk					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
1,1-Dichloroethylene	1.06E-11	6.07E-10	2.72E-09	3.34E-09	27.1
Arsenic	5.74E-09	0.00E+00	0.00E+00	5.74E-09	46.5
Benzene	7.74E-12	1.30E-10	2.33E-09	2.46E-09	20
Cadmium (dust)	7.94E-10	0.00E+00	0.00E+00	7.9E-10	6.44
Total by pathway	6.55E-09	7.37E-10	5.05E-09		
% Contribution by pathway	53.1	5.98	40.9		
Scenario Total				1.23E-08	
Reas. Max. Cancer Risk					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
1,1-Dichloroethylene	2.72E-11	1.10E-09	4.91E-09	6.03E-09	25.8
Arsenic	9.86E-09	0.00E+00	0.00E+00	9.86E-09	42.2
Benzene	2.31E-11	2.70E-10	4.84E-09	5.14E-09	22
Cadmium (dust)	2.33E-09	0.00E+00	0.00E+00	2.3E-09	9.96
Total by pathway	1.22E-08	1.37E-09	9.75E-09		
% Contribution by pathway	52.4	5.85	41.8		
Scenario Total				2.34E-08	

Potential Carc[illegible]nic Risk
SWMU 54/55 and 21/22/123

Average Cancer Risk					
Residential Adult, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Arsenic	1.13E-10	1.13E-10	87.8		
Cadmium (dust)	1.56E-11	1.56E-11	12.2		
Total by pathway	1.28E-10				
% Contribution by pathway	100				
Scenario Total		1.28E-10			
Reas. Max. Cancer Risk					
Residential Adult, present					
	Inhalation of Fugitive Dust	Total	% Contrib		
Arsenic	1.35E-10	1.35E-10	87.8		
Cadmium (dust)	1.88E-11	1.88E-11	12.2		
Total by pathway	1.54E-10				
% Contribution by pathway	100				
Scenario Total		1.54E-10			
Average Cancer Risk					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
1,1-Dichloroethylene	4.14E-14	4.14E-14	0.0551		
Arsenic	7.26E-11	7.26E-11	96.6		
Benzene	4.82E-15	4.82E-15	0.00641		
Cadmium (dust)	2.52E-12	2.52E-12	3.35		
Total by pathway	7.52E-11				
% Contribution by pathway	100				
Scenario Total		7.52E-11			

Potential Carcinogenic Risk
SWMU 54/55 and 21/22/123

Reas. Max. Cancer Risk					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
1,1-Dichloroethylene	7.47E-14	7.47E-14	0.0722		
Arsenic	9.83E-11	9.83E-11	95		
Benzene	1.00E-14	1.00E-14	0.00971		
Cadmium (dust)	5.05E-12	5.05E-12	4.88		
Total by pathway	1.03E-10				
% Contribution by pathway	100				
Scenario Total		1.03E-10			

Potential Nonca[illegible]ogenic Risk
SWMU 54/55 a[illegible] 21/22/123

Average Non-Cancer Hazard Index Summary					
On-Site Worker, present					
Zero Risk					
Reas. Max. Non-Cancer Hazard Index Summary					
On-Site Worker, present					
Zero Risk					
Average Non-Cancer Hazard Index Summary					
On-Site Worker, Future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Ethyl benzene	1.06E-05	1.06E-05	100		
Total by pathway	1.06E-05				
% Contribution by pathway	100				
Scenario Total		1.06E-05			
Reas. Max. Non-Cancer Hazard Index Summary					
On-Site Worker, Future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Ethyl benzene	2.97E-05	2.97E-05	100		
Total by pathway	2.97E-05				
% Contribution by pathway	100				
Scenario Total		2.97E-05			
Average Non-Cancer Hazard Index Summary					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
1,1-Dichloroethylene	0.00E+00	4.63E-05	4.34E-05	8.97E-05	0.924
Arsenic	0.00E+00	8.81E-03	8.30E-05	8.89E-03	91.5
Cadmium (food)	0.00E+00	1.41E-04	6.65E-05	2.07E-04	2.14
Chromium	0.00E+00	1.37E-05	8.19E-06	2.19E-05	0.225
Ethyl benzene	1.91E-06	9.13E-05	4.09E-04	0.000502	5.17
Total by pathway	1.91E-06	9.10E-03	0.00061		
% Contribution by pathway	0.0197	93.7	6.28		
Scenario Total				9.71E-03	

Potential Noncarcinogenic Risk
SWMU 54/55 and 21/22/123

Reas. Max. Non-Cancer Hazard Index Summary					
Subchronic Construction Worker, future					
	Inhalation of Fugitive Dust	Ingestion of Soil	Dermal Contact with Soil	Total	% Contrib
1,1-Dichloroethylene	0.00E+00	8.36E-05	7.84E-05	1.62E-04	1.32
Arsenic	0.00E+00	1.06E-02	9.99E-05	1.07E-02	87
Cadmium (food)	0.00E+00	2.83E-04	1.33E-04	4.16E-04	3.38
Chromium	0.00E+00	2.18E-05	1.30E-05	3.49E-05	0.284
Ethyl benzene	5.34E-06	1.79E-04	8.03E-04	0.000987	8.03
Total by pathway	5.34E-06	1.12E-02	0.00113		
% Contribution by pathway	0.0434	90.8	9.17		
Scenario Total				1.23E-02	
Average Non-Cancer Hazard Index Summary					
Residential Adult, present					
Zero Risk					
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Adult, present					
Zero Risk					
Average Non-Cancer Hazard Index Summary					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Ethyl benzene	2.70E-12	2.70E-12	100		
Total by pathway	2.70E-12				
% Contribution by pathway	100				
Scenario Total		2.70E-12			
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Adult, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Ethyl benzene	5.29E-12	5.29E-12	100		
Total by pathway	5.29E-12				
% Contribution by pathway	100				
Scenario Total		5.29E-12			

Potential Nonca ɔgenic Risk
SWMU 54/55 and 21/22/123

Average Non-Cancer Hazard Index Summary					
Residential Child, present					
Zero Risk					
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Child, present					
Zero Risk					
Average Non-Cancer Hazard Index Summary					
Residential Child, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Ethyl benzene	2.70E-12	2.70E-12	100		
Total by pathway	2.70E-12				
% Contribution by pathway	100				
Scenario Total		2.70E-12			
Reas. Max. Non-Cancer Hazard Index Summary					
Residential Child, future					
	Inhalation of Fugitive Dust	Total	% Contrib		
Ethyl benzene	5.29E-12	5.29E-12	100		
Total by pathway	5.29E-12				
% Contribution by pathway	100				
Scenario Total		5.29E-12			

Pond 1080

(SWMU 164)

Risk Summary Table
SWMU 164

Summary of Cancer Risks by Scenario		
Chronic Exposure		
Scenario	Average	Reas. Max.
Nearest Worker, present	3.70E-07	7.86E-07
Nearest Worker, Future	9.74E-06	2.11E-05
Worker at Site 126, present	1.89E-07	4.05E-07
Worker at Site 126, Future	2.14E-08	4.55E-08
Worker at Site 127, present	1.09E-08	2.34E-08
Worker at Site 127, Future	3.01E-09	6.40E-09
Subchronic Construction Worker, future	1.19E-08	2.58E-08
Summary of Non-Cancer Risks by Scenario		
Scenario	Average	Reas. Max.
Nearest Worker, present	0.00E+00	0.00E+00
Nearest Worker, Future	5.13E-01	7.91E-01
Worker at Site 126, present	1.96E-02	3.02E-02
Worker at Site 126, Future	0.00E+00	0.00E+00
Worker at Site 127, present	1.14E-03	1.75E-03
Worker at Site 127, Future	0.00E+00	0.00E+00
Subchronic Construction Worker, future	9.89E-02	1.51E-01

Potential Carcinogenic Risk
SWMU 164

Average Cancer Risk			
Nearest Worker, present			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	3.68E-07	3.68E-07	99.4
Cadmium (dust)	2.08E-09	2.1E-09	0.562
Total by pathway	3.70E-07		
% Contribution by pathway	100		
Scenario Total		3.70E-07	
Reas. Max. Cancer Risk			
Nearest Worker, present			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	7.71E-07	7.71E-07	98.1
Cadmium (dust)	1.52E-08	1.5E-08	1.94
Total by pathway	7.86E-07		
% Contribution by pathway	100		
Scenario Total		7.86E-07	
Average Cancer Risk			
Nearest Worker, Future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	9.63E-06	9.63E-06	98.9
Cadmium (dust)	1.03E-07	1E-07	1.06
Total by pathway	9.74E-06		
% Contribution by pathway	100		
Scenario Total		9.74E-06	
Reas. Max. Cancer Risk			
Nearest Worker, Future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	2.02E-05	2.02E-05	95.8
Cadmium (dust)	8.87E-07	8.9E-07	4.21
Total by pathway	2.11E-05		
% Contribution by pathway	100		
Scenario Total		2.11E-05	
Average Cancer Risk			
Worker at Site 126, present			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	1.85E-07	1.85E-07	97.9
Cadmium (dust)	3.95E-09	4E-09	2.09
Total by pathway	1.89E-07		
% Contribution by pathway	100		
Scenario Total		1.89E-07	

Potential Carcinogenic Risk
SWMU 164

Reas. Max. Cancer Risk			
Worker at Site 126, present			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	3.71E-07	3.71E-07	91.6
Cadmium (dust)	3.39E-08	3.4E-08	8.37
Total by pathway	4.05E-07		
% Contribution by pathway	100		
Scenario Total		4.1E-07	
Average Cancer Risk			
Worker at Site 126, Future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	2.13E-08	2.1E-08	99.4
Cadmium (dust)	1.20E-10	1.2E-10	0.562
Total by pathway	2.14E-08		
% Contribution by pathway	100		
Scenario Total		2.1E-08	
Reas. Max. Cancer Risk			
Worker at Site 126, Future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	4.47E-08	4.5E-08	98.1
Cadmium (dust)	8.83E-10	8.8E-10	1.94
Total by pathway	4.55E-08		
% Contribution by pathway	100		
Scenario Total		4.6E-08	
Average Cancer Risk			
Worker at Site 127, present			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	1.07E-08	1.1E-08	97.9
Cadmium (dust)	2.29E-10	2.3E-10	2.09
Total by pathway	1.09E-08		
% Contribution by pathway	100		
Scenario Total		1.1E-08	
Reas. Max. Cancer Risk			
Worker at Site 127, present			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	2.15E-08	2.2E-08	91.6
Cadmium (dust)	1.96E-09	2E-09	8.37
Total by pathway	2.34E-08		
% Contribution by pathway	100		
Scenario Total		2.3E-08	

Potential Carcinogenic Risk
SWMU 164

Average Cancer Risk			
Worker at Site 127, Future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	3.00E-09	3E-09	99.4
Cadmium (dust)	1.69E-11	1.7E-11	0.562
Total by pathway	3.01E-09		
% Contribution by pathway	100		
Scenario Total		3E-09	
Reas. Max. Cancer Risk			
Worker at Site 127, Future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	6.28E-09	6.3E-09	98.1
Cadmium (dust)	1.24E-10	1.2E-10	1.94
Total by pathway	6.4E-09		
% Contribution by pathway	100		
Scenario Total		6.4E-09	
Average Cancer Risk			
Subchronic Construction Worker, future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	1.18E-08	1.2E-08	98.9
Cadmium (dust)	1.27E-10	1.3E-10	1.06
Total by pathway	1.19E-08		
% Contribution by pathway	100		
Scenario Total		1.2E-08	
Reas. Max. Cancer Risk			
Subchronic Construction Worker, future			
	Inhalation of Fugitive Dust	Total	% Contrib
Arsenic	2.47E-08	2.5E-08	95.8
Cadmium (dust)	1.09E-09	1.1E-09	4.21
Total by pathway	2.58E-08		
% Contribution by pathway	100		
Scenario Total		2.6E-08	

Potential Noncarcinogenic Risk
SWMU 164

Average Non-Cancer Hazard Index Summary					
Nearest Worker, present					
Zero Risk					
Reas. Max. Non-Cancer Hazard Index Summary					
Nearest Worker, present					
Zero Risk					
Average Non-Cancer Hazard Index Summary					
Nearest Worker, Future					
	Inhalation of				
	Fugitive Dust	Total	% Contrib		
Barium	5.13E-01	5.13E-01	100		
Total by pathway	5.13E-01				
% Contribution by pathway	100				
Scenario Total		5.13E-01			
Reas. Max. Non-Cancer Hazard Index Summary					
Nearest Worker, Future					
	Inhalation of				
	Fugitive Dust	Total	% Contrib		
Barium	7.91E-01	7.91E-01	100		
Total by pathway	7.91E-01				
% Contribution by pathway	100				
Scenario Total		7.91E-01			
Average Non-Cancer Hazard Index Summary					
Worker at Site 126, present					
	Inhalation of				
	Fugitive Dust	Total	% Contrib		
Barium	1.96E-02	1.96E-02	100		
Total by pathway	1.96E-02				
% Contribution by pathway	100				
Scenario Total		1.96E-02			
Reas. Max. Non-Cancer Hazard Index Summary					
Worker at Site 126, present					
	Inhalation of				
	Fugitive Dust	Total	% Contrib		
Barium	3.02E-02	3.02E-02	100		
Total by pathway	3.02E-02				
% Contribution by pathway	100				
Scenario Total		3.02E-02			

Potential Noncarcinogenic Risk
SWMU 164

Average Non-Cancer Hazard Index Summary					
Worker at Site 126, Future					
Zero Risk					
Reas. Max. Non-Cancer Hazard Index Summary					
Worker at Site 126, Future					
Zero Risk					
Average Non-Cancer Hazard Index Summary					
Worker at Site 127, present					
	Inhalation of				
	Fugitive Dust	Total	% Contrib		
Barium	1.14E-03	1.14E-03	100		
Total by pathway	1.14E-03				
% Contribution by pathway	100				
Scenario Total		1.14E-03			
Reas. Max. Non-Cancer Hazard Index Summary					
Worker at Site 127, present					
	Inhalation of				
	Fugitive Dust	Total	% Contrib		
Barium	1.75E-03	1.75E-03	100		
Total by pathway	1.75E-03				
% Contribution by pathway	100				
Scenario Total		1.75E-03			
Average Non-Cancer Hazard Index Summary					
Worker at Site 127, Future					
Zero Risk					
Reas. Max. Non-Cancer Hazard Index Summary					
Worker at Site 127, Future					
Zero Risk					

Potential Noncarcinogenic Risk
SWMU 164

Average Non-Cancer Hazard Index Summary					
Subchronic Construction Worker, future					
	Inhalation of	Ingestion	Dermal Contact		
	Fugitive Dust	of Soil	with Soil	Total	% Contrib
Arsenic	0.00E+00	4.26E-03	4.01E-05	4.30E-03	4.34
Barium	9.24E-02	7.45E-04	1.34E-03	9.45E-02	95.6
Cadmium (food)	0.00E+00	3.38E-05	1.59E-05	4.98E-05	0.0503
Chromium	0.00E+00	8.30E-06	4.96E-06	1.33E-05	0.0134
Total by pathway	9.24E-02	5.04E-03	1.40E-03		
% Contribution by pathway	93.5	5.1	1.41		
Scenario Total				9.89E-02	
Reas. Max. Non-Cancer Hazard Index Summary					
Subchronic Construction Worker, future					
	Inhalation of	Ingestion	Dermal Contact		
	Fugitive Dust	of Soil	with Soil	Total	% Contrib
Arsenic	0.00E+00	6.26E-03	5.90E-05	6.31E-03	4.18
Barium	1.42E-01	8.03E-04	1.44E-03	1.45E-01	95.6
Cadmium (food)	0.00E+00	1.94E-04	9.17E-05	2.86E-04	0.189
Chromium	0.00E+00	1.11E-05	6.63E-06	1.77E-05	0.0117
Total by pathway	1.42E-01	7.26E-03	1.60E-03		
% Contribution by pathway	94.1	4.81	1.06		
Scenario Total				1.51E-01	

Mathmatica Output
Intake Calculations

IRP Site 16

(SWMUs 118, 132, and AOC-A)

Carcinogenic Intake Risk Estimates
SWMU 118/132/AOC-A

Scenario									
	Activity								
		Pathway							
Subchronic Construction Worker, future									
	Construction Worker at Enotmology Shop, subchronic								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			alpha-BHC	1.80E-03	B2	4.39E-10	4.31E-09	7.90E-13	7.76E-12
			Dieldrin	4.60E-03	B2	7.67E-10	7.25E-09	3.53E-12	3.33E-11
			Heptachlor epoxide	2.60E-03	B2	3.10E-08	3.23E-07	8.06E-11	8.41E-10
			Methylene chloride	4.70E-07	B2	1.31E-08	5.10E-08	6.18E-15	2.40E-14
		IngestionOfSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			alpha-BHC	6.3	B2	5.62E-12	3.86E-11	3.54E-11	2.43E-10
			Dieldrin	16	B2	9.81E-12	6.49E-11	1.57E-10	1.04E-09
			gamma-BHC	1.3	B2/C	7.53E-12	4.82E-11	9.80E-12	6.27E-11
			Heptachlor epoxide	9.1	B2	3.96E-10	2.89E-09	3.61E-09	2.63E-08
			Methylene chloride	7.50E-03	B2	1.68E-10	6.34E-10	1.26E-12	4.76E-12
			PCB-1260	7.7	B2	1.07E-09	2.57E-09	8.27E-09	1.98E-08
		DermalContactWithSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			alpha-BHC	6.47	B2	5.03E-12	3.46E-11	3.25E-11	2.24E-10
			Dieldrin	32	B2	8.79E-12	5.81E-11	2.81E-10	1.86E-09
			gamma-BHC	1.31	B2/C	6.75E-12	4.32E-11	8.84E-12	5.66E-11
			Heptachlor epoxide	1.52E+01	B2	3.55E-10	2.59E-09	5.40E-09	3.94E-08
			Methylene chloride	3.75E-02	B2	1.50E-10	5.68E-10	5.64E-12	2.13E-11
			PCB-1260	8.56	B2	1.44E-09	3.45E-09	1.24E-08	2.95E-08

Carcinogenic Intake and Risk Estimates
SWMU 118/132/AOC-A

Residential Adult, present									
	Living on Holloman AFB								
		InhalationOfVapor: Volatiles on-Base - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			alpha-BHC	1.80E-03	B2	2.19E-09	1.50E-08	3.93E-12	2.70E-11
			Dieldrin	4.60E-03	B2	3.82E-09	2.53E-08	1.76E-11	1.16E-10
			Heptachlor epoxide	2.60E-03	B2	1.54E-07	1.13E-06	4.02E-10	2.93E-09
			Methylene chloride	4.70E-07	B2	8.55E-11	2.36E-10	4.02E-17	1.11E-16
Residential Adult, future									
	Living on Holloman AFB - future								
		InhalationOfVapor: Volatiles on-Base - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			alpha-BHC	1.80E-03	B2	2.19E-09	1.50E-08	3.93E-12	2.70E-11
			Dieldrin	4.60E-03	B2	3.82E-09	2.53E-08	1.76E-11	1.16E-10
			Heptachlor epoxide	2.60E-03	B2	1.54E-07	1.80E-09	4.02E-10	4.68E-12
			Methylene chloride	4.70E-07	B2	8.55E-11	2.36E-10	4.02E-17	1.11E-16

Noncarcinogenic Intal d Risk Estimates
SWMU 118/ 2/AOC-A

Scenario							
	Activity						
		Pathway					
Subchronic Construction Worker, future							
	Construction Worker at Enotmology Shop, subchronic						
		InhalationOfVapor: Volatiles on-site - future					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	5.41E-06	2.10E-05	1.80E-09	7.00E-09
		IngestionOfSoil: Soil on-site - future					
			Contaminant	Chronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Dieldrin	5.00E-05	4.04E-09	2.67E-08	8.08E-05	5.34E-04
			gamma-BHC	3.00E-04	3.10E-09	1.99E-08	1.03E-05	6.62E-05
			Heptachlor epoxide	1.30E-05	1.63E-07	1.19E-06	1.26E-02	9.17E-02
			Methylene chloride	6.00E-02	6.92E-08	2.61E-07	1.15E-06	4.35E-06
		DermalContactWithSoil: Soil on-site - future					
			Contaminant	Chronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Dieldrin	2.50E-05	3.62E-09	2.39E-08	1.45E-04	9.58E-04
			gamma-BHC	2.98E-04	2.78E-09	1.78E-08	9.33E-06	5.97E-05
			Heptachlor epoxide	7.80E-06	1.46E-07	1.07E-06	1.87E-02	1.37E-01
			Methylene chloride	1.20E-02	6.20E-08	2.34E-07	5.16E-06	1.95E-05
Recreational Child On-Site, present							
	Recreation on-site - present						
		InhalationOfVapor: Volatiles on-site - present					
			Contaminant	Subchronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	5.30E-08	1.46E-07	1.77E-11	4.87E-11
		IngestionOfSoil: Soil on-site - present					
			Contaminant	Subchronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Dieldrin	5.00E-05	1.87E-09	1.24E-08	3.74E-05	2.47E-04
			gamma-BHC	3.00E-03	1.44E-09	9.20E-09	4.79E-07	3.07E-06
			Heptachlor epoxide	1.30E-05	7.55E-08	5.52E-07	5.81E-03	4.25E-02
			Methylene chloride	6.00E-02	5.70E-09	1.57E-08	9.49E-08	2.62E-07
		DermalContactWithSoil: Soil on-site - present					
			Contaminant	Subchronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Dieldrin	2.50E-05	8.64E-10	5.72E-09	3.46E-05	2.29E-04
			gamma-BHC	2.98E-03	6.64E-10	4.25E-09	2.23E-07	1.43E-06
			Heptachlor epoxide	7.80E-06	3.49E-08	2.55E-07	4.47E-03	3.27E-02
			Methylene chloride	1.20E-02	2.63E-09	7.25E-09	2.19E-07	6.04E-07

Noncarcinogenic Intake and Risk Estimates
SWMU 118/132/AOC-A

Recreational Child On-Site, future							
	Recreation on-site - future						
		InhalationOfVapor: Volatiles on-site - future					
			Contaminant	Subchronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	2.98E-07	8.10E-07	9.94E-11	2.70E-10
		IngestionOfSoil: Soil on-site - future					
			Contaminant	Subchronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Dieldrin	5.00E-05	1.87E-09	1.24E-08	3.74E-05	2.47E-04
			gamma-BHC	3.00E-03	1.44E-09	9.20E-09	4.79E-07	3.07E-06
			Heptachlor epoxide	1.30E-05	7.55E-08	5.52E-07	5.81E-03	4.25E-02
			Methylene chloride	6.00E-02	3.20E-08	1.21E-07	5.34E-07	2.02E-06
		DermalContactWithSoil: Soil on-site - future					
			Contaminant	Subchronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Dieldrin	2.50E-05	8.64E-10	5.72E-09	3.46E-05	2.29E-04
			gamma-BHC	2.98E-03	6.64E-10	4.25E-09	2.23E-07	1.43E-06
			Heptachlor epoxide	7.80E-06	3.49E-08	2.55E-07	4.47E-03	3.27E-02
			Methylene chloride	1.20E-02	1.48E-08	5.59E-08	1.23E-06	4.66E-06
Residential Adult, present							
	Living on Holloman AFB						
		InhalationOfVapor: Volatiles on-Base - present					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	6.65E-10	1.83E-09	2.22E-13	6.11E-13
Residential Adult, future							
	Living on Holloman AFB - future						
		InhalationOfVapor: Volatiles on-Base - future					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	6.65E-10	1.83E-09	2.22E-13	6.11E-13
Residential Child, present							
	Living on Holloman AFB						
		InhalationOfVapor: Volatiles on-Base - present					
			Contaminant	Subchronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	6.65E-10	1.83E-09	2.22E-13	6.11E-13
Residential Child, future							
	Living on Holloman AFB - future						
		InhalationOfVapor: Volatiles on-Base - future					
			Contaminant	Subchronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Methylene chloride	3000	6.65E-10	1.83E-09	2.22E-13	6.11E-13

IRP Site 36

(SWMUs 129 and 178)

Carcinogenic Intake Risk Estimates
SWMU 1 ,178

Scenario									
	Activity								
		Pathway							
On-Site Worker, present									
	Working at the Stables								
		InhalationOfVapor: Volatiles on-site - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	1.70E-03	B2	7.40E-06	2.28E-05	1.26E-08	3.88E-08
			Trichloroethylene	1.70E-06	B2/C	7.43E-07	2.03E-06	1.26E-12	3.46E-12
		IngestionOfSoil: Soil on-site - present							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	7.3	B2	2.52E-08	3.62E-08	1.84E-07	2.64E-07
			Trichloroethylene	1.10E-02	B2/C	2.53E-09	3.24E-09	2.79E-11	3.56E-11
		DermalContactWithSoil: Soil on-site - present							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	9.13	B2	6.76E-09	9.74E-09	6.17E-08	8.89E-08
			Trichloroethylene	1.10E-02	B2/C	2.27E-09	2.90E-09	2.50E-11	3.19E-11
On-Site Worker, Future									
	Working at the Stables - future								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	1.70E-03	B2	7.40E-06	2.28E-05	1.26E-08	3.88E-08
			Trichloroethylene	1.70E-06	B2/C	7.43E-07	2.03E-06	1.26E-12	3.46E-12
		IngestionOfSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	7.3	B2	2.52E-08	3.62E-08	1.84E-07	2.64E-07
			Trichloroethylene	1.10E-02	B2/C	2.53E-09	3.24E-09	2.79E-11	3.56E-11
		DermalContactWithSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	9.13	B2	6.76E-09	9.74E-09	6.17E-08	8.89E-08
			Trichloroethylene	1.10E-02	B2/C	2.27E-09	2.90E-09	2.50E-11	3.19E-11
Subchronic Construction Worker, future									
	Construction Worker at Stables, subchronic								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	1.70E-03	B2	2.41E-08	4.96E-08	4.10E-11	8.43E-11
			Trichloroethylene	1.70E-06	B2/C	2.43E-09	4.43E-09	4.13E-15	7.53E-15

Carcinogenic Intake and Risk Estimates
SWMU 129/178

		IngestionOfSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	7.3	B2	3.08E-11	4.43E-11	2.25E-10	3.24E-10
			Trichloroethylene	1.10E-02	B2/C	3.10E-12	3.96E-12	3.41E-14	4.36E-14
		DermalContactWithSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	9.13	B2	8.28E-12	1.19E-11	7.56E-11	1.09E-10
			Trichloroethylene	1.10E-02	B2/C	2.78E-12	3.55E-12	3.05E-14	3.90E-14
Recreational Adult On-Site, present									
	Recreation at Stables								
		InhalationOfVapor: Volatiles on-site - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	1.70E-03	B2	1.77E-06	7.09E-06	3.02E-09	1.21E-08
			Trichloroethylene	1.70E-06	B2/C	1.78E-07	6.33E-07	3.03E-13	1.08E-12
		IngestionOfSoil: Soil on-site - present							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	7.3	B2	1.89E-08	7.55E-08	1.38E-07	5.51E-07
			Trichloroethylene	1.10E-02	B2/C	1.90E-09	6.74E-09	2.09E-11	7.42E-11
		DermalContactWithSoil: Soil on-site - present							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	9.13	B2	3.00E-09	1.20E-08	2.74E-08	1.10E-07
			Trichloroethylene	1.10E-02	B2/C	1.01E-09	3.57E-09	1.11E-11	3.93E-11
Recreational Adult On-Site, future									
	Recreation at Stables, future								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	1.70E-03	B2	1.77E-06	7.09E-06	3.02E-09	1.21E-08
			Trichloroethylene	1.70E-06	B2/C	1.78E-07	6.33E-07	3.03E-13	1.08E-12
		IngestionOfSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	7.3	B2	1.89E-08	7.55E-08	1.38E-07	5.51E-07
			Trichloroethylene	1.10E-02	B2/C	1.90E-09	6.74E-09	2.09E-11	7.42E-11
		DermalContactWithSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			Benzo(a)pyrene	9.13	B2	3.00E-09	1.20E-08	2.74E-08	1.10E-07
			Trichloroethylene	1.10E-02	B2/C	1.01E-09	3.57E-09	1.11E-11	3.93E-11

IRP Site 47

(SWMUs 21/22/123 and 54/55)

Carcinogenic Intake & Risk Estimates
SWMU 54/55 and 21/22/123

Scenario									
	Activity								
		Pathway							
On-Site Worker, present									
	Working at the POL Area								
		InhalationOfVapor: Volatiles on-site - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	3.68E-05	6.32E-05	1.58E-07	2.71E-07
			Cadmium (dust)	1.80E-03	B1	1.21E-05	2.08E-05	2.18E-08	3.75E-08
On-Site Worker, Future									
	Working at the POL Area - future								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			1,1-Dichloroethylene	5.00E-05	C	1.72E-04	4.45E-04	8.62E-09	2.22E-08
			Arsenic	4.29E-03	A	1.09E-03	1.88E-03	4.69E-06	8.06E-06
			Benzene	8.30E-06	A	7.62E-04	2.27E-03	6.32E-09	1.88E-08
			Cadmium (dust)	1.80E-03	B1	3.61E-04	1.06E-03	6.49E-07	1.90E-06
Subchronic Construction Worker, future									
	Construction Worker at the POL Area, subchronic								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			1,1-Dichloroethylene	5.00E-05	C	2.11E-07	5.44E-07	1.06E-11	2.72E-11
			Arsenic	4.29E-03	A	1.34E-06	2.30E-06	5.74E-09	9.86E-09
			Benzene	8.30E-06	A	9.32E-07	2.78E-06	7.74E-12	2.31E-11
			Cadmium (dust)	1.80E-03	B1	4.41E-07	1.29E-06	7.94E-10	2.33E-09
		IngestionOfSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			1,1-Dichloroethylene	6.00E-01	C	1.01E-09	1.83E-09	6.07E-10	1.10E-09
			Benzene	2.90E-02	A	4.48E-09	9.32E-09	1.30E-10	2.70E-10
		DermalContactWithSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
			1,1-Dichloroethylene	3	C	9.07E-10	1.64E-09	2.72E-09	4.91E-09
			Benzene	5.80E-01	A	4.01E-09	8.35E-09	2.33E-09	4.84E-09

Carcinogenic Intake and Risk Estimates
SWMU 54/55 and 21/22/123

Residential Adult, present									
	Living on Holloman AFB								
		InhalationOfVapor: Volatiles on-Base - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	2.62E-08	3.16E-08	1.13E-10	1.35E-10
			Cadmium (dust)	1.80E-03	B1	8.66E-09	1.04E-08	1.56E-11	1.88E-11
Residential Adult, future									
	Living on Holloman AFB - future								
		InhalationOfVapor: Volatiles on-Base - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			1,1-Dichloroethylene	5.00E-05	C	8.28E-10	1.49E-09	4.14E-14	7.47E-14
			Arsenic	4.29E-03	A	1.69E-08	2.29E-08	7.26E-11	9.83E-11
			Benzene	8.30E-06	A	5.81E-10	1.21E-09	4.82E-15	1.00E-14
			Cadmium (dust)	1.80E-03	B1	1.40E-09	2.81E-09	2.52E-12	5.05E-12

Noncarcinogenic Inta[illegible]d Risk Estimates
SWMU 54/55 and 21/22/123

Scenario							
	Activity						
		Pathway					
On-Site Worker, present							
	Working at the POL Area						
		InhalationOfVapor: Volatiles on-site - present					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
On-Site Worker, Future							
	Working at the POL Area - future						
		InhalationOfVapor: Volatiles on-site - future					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Ethyl benzene	1000	1.06E-02	2.97E-02	1.06E-05	2.97E-05
Subchronic Construction Worker, future							
	Construction Worker at the POL Area, subchronic						
		InhalationOfVapor: Volatiles on-site - future					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Ethyl benzene	1000	1.91E-03	5.34E-03	1.91E-06	5.34E-06
		IngestionOfSoil: Soil on-site - future					
			Contaminant	Chronic RfD	Average Intak	Reas. Max. Intak	Average Haz. Index	Reas. Max. Haz. Index
			1,1-Dichloroethylene	9.00E-03	4.17E-07	7.52E-07	4.63E-05	8.36E-05
			Arsenic	3.00E-04	2.64E-06	3.18E-06	8.81E-03	1.06E-02
			Cadmium (food)	1.00E-03	1.41E-07	2.83E-07	1.41E-04	2.83E-04
			Chromium	1	1.37E-05	2.18E-05	1.37E-05	2.18E-05
			Ethyl benzene	1.00E-01	9.13E-06	1.79E-05	9.13E-05	1.79E-04
		DermalContactWithSoil: Soil on-site - future					
			Contaminant	Chronic RfD	Average Intak	Reas. Max. Intak	Average Haz. Index	Reas. Max. Haz. Index
			1,1-Dichloroethylene	8.60E-03	3.73E-07	6.74E-07	4.34E-05	7.84E-05
			Arsenic	2.85E-04	2.37E-08	2.85E-08	8.30E-05	9.99E-05
			Cadmium (food)	3.80E-05	2.53E-09	5.06E-09	6.65E-05	1.33E-04
			Chromium	1.50E-01	1.23E-06	1.96E-06	8.19E-06	1.30E-05
			Ethyl benzene	2.00E-02	8.18E-06	1.61E-05	4.09E-04	8.03E-04
Residential Adult, present							
	Living on Holloman AFB						
		InhalationOfVapor: Volatiles on-Base - present					
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index

Noncarcinogenic Intake and Risk Estimates
SWMU 54/55 and 21/22/123

Residential Adult, future								
	Living on Holloman AFB - future							
		InhalationOfVapor: Volatiles on-Base - future						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Ethyl benzene	1000	2.70E-09	5.29E-09	2.70E-12	5.29E-12
Residential Child, present								
	Living on Holloman AFB							
		InhalationOfVapor: Volatiles on-Base - present						
			Contaminant	Subchronic Rf	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
Residential Child, future								
	Living on Holloman AFB - future							
		InhalationOfVapor: Volatiles on-Base - future						
			Contaminant	Subchronic Rf	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Ethyl benzene	1000	2.70E-09	5.29E-09	2.70E-12	5.29E-12

Pond 1080

(SWMU 164)

Carcinogenic Intake Risk Estimates
SWMU 164

Scenario									
	Activity								
		Pathway							
Nearest Worker, present									
	Working near Pond 1080								
		InhalationOfVapor: Volatiles on-site - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	8.57E-05	1.80E-04	3.68E-07	7.71E-07
			Cadmium (dust)	1.80E-03	B1	1.15E-06	8.46E-06	2.08E-09	1.52E-08
Nearest Worker, Future									
	Working near 1080 Pond - future								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	2.25E-03	4.71E-03	9.63E-06	2.02E-05
			Cadmium (dust)	1.80E-03	B1	5.75E-05	4.93E-04	1.03E-07	8.87E-07
Worker at Site 126, present									
	Working at Site 126								
		InhalationOfVapor: Volatiles at Site 126 - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	4.31E-05	8.64E-05	1.85E-07	3.71E-07
			Cadmium (dust)	1.80E-03	B1	2.19E-06	1.88E-05	3.95E-09	3.39E-08
Worker at Site 126, Future									
	Working at Site 126 - future								
		InhalationOfVapor: Volatiles at Site 126 - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	4.97E-06	1.04E-05	2.13E-08	4.47E-08
			Cadmium (dust)	1.80E-03	B1	6.69E-08	4.90E-07	1.20E-10	8.83E-10
Worker at Site 127, present									
	Working at Site 127								
		InhalationOfVapor: Volatiles at Site 127 - present							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	2.50E-06	5.01E-06	1.07E-08	2.15E-08
			Cadmium (dust)	1.80E-03	B1	1.27E-07	1.09E-06	2.29E-10	1.96E-09

Carcinogenic Intake and Risk Estimates
SWMU 164

Worker at Site 127, Future									
	Working at Site 127 - future								
		InhalationOfVapor: Volatiles at Site 127 - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	6.98E-07	1.46E-06	3.00E-09	6.28E-09
			Cadmium (dust)	1.80E-03	B1	9.41E-09	6.90E-08	1.69E-11	1.24E-10
Subchronic Construction Worker, future									
	Construction Worker at Pond 1080, subchronic								
		InhalationOfVapor: Volatiles on-site - future							
			Contaminant	SFC	Evidence	Average EAC	Reas. Max. EAC	Average Risk	Reas. Max. Risk
			Arsenic	4.29E-03	A	2.75E-06	5.76E-06	1.18E-08	2.47E-08
			Cadmium (dust)	1.80E-03	B1	7.03E-08	6.03E-07	1.27E-10	1.09E-09
		IngestionOfSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk
		DermalContactWithSoil: Soil on-site - future							
			Contaminant	SF	Evidence	Average CDI	Reas. Max. CDI	Average Risk	Reas. Max. Risk

Noncarcinogenic Intak .d Risk Estimates
SWMU 164

Scenario								
	Activity							
		Pathway						
Nearest Worker, present								
	Working near Pond 1080							
		InhalationOfVapor: Volatiles on-site - present						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
Nearest Worker, Future								
	Working near 1080 Pond - future							
		InhalationOfVapor: Volatiles on-site - future						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Barium	5.00E-01	2.57E-01	3.95E-01	5.13E-01	7.91E-01
Worker at Site 126, present								
	Working at Site 126							
		InhalationOfVapor: Volatiles at Site 126 - present						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Barium	5.00E-01	9.80E-03	1.51E-02	1.96E-02	3.02E-02
Worker at Site 126, Future								
	Working at Site 126 - future							
		InhalationOfVapor: Volatiles at Site 126 - future						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
Worker at Site 127, present								
	Working at Site 127							
		InhalationOfVapor: Volatiles at Site 127 - present						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Barium	5.00E-01	5.68E-04	8.74E-04	1.14E-03	1.75E-03
Worker at Site 127, Future								
	Working at Site 127 - future							
		InhalationOfVapor: Volatiles at Site 127 - future						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
Subchronic Construction Worker, future								
	Construction Worker at Pond 1080, subchronic							
		InhalationOfVapor: Volatiles on-site - future						
			Contaminant	Chronic RfC	Average EAC	Reas. Max. EAC	Average Haz. Index	Reas. Max. Haz. Index
			Barium	5.00E-01	4.62E-02	7.12E-02	9.24E-02	1.42E-01

Noncarcinogenic Intake and Risk Estimates
SWMU 164

		IngestionOfSoil: Soil on-site - future						
			Contaminant	Chronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Arsenic	3.00E-04	1.28E-06	1.88E-06	4.26E-03	6.26E-03
			Barium	7.00E-02	5.22E-05	5.62E-05	7.45E-04	8.03E-04
			Cadmium (food)	1.00E-03	3.38E-08	1.94E-07	3.38E-05	1.94E-04
			Chromium	1	8.30E-06	1.11E-05	8.30E-06	1.11E-05
		DermalContactWithSoil: Soil on-site - future						
			Contaminant	Chronic RfD	Average Intake	Reas. Max. Intake	Average Haz. Index	Reas. Max. Haz. Index
			Arsenic	2.85E-04	1.14E-08	1.68E-08	4.01E-05	5.90E-05
			Barium	3.50E-03	4.67E-06	5.04E-06	1.34E-03	1.44E-03
			Cadmium (food)	3.80E-05	6.06E-10	3.48E-09	1.59E-05	9.17E-05
			Chromium	1.50E-01	7.44E-07	9.94E-07	4.96E-06	6.63E-06

ATTACHMENT C-5

Risk-based Screen Results

Risk-Based Screening for the Selection of Chemicals of Potential Concern

The last step in the selection process for chemicals of potential concern involves screening maximum soil and water concentrations using USEPA Region III screening guidance. The "action levels" derived using the screening guidance are compared to the maximum concentrations detected at the site. Concentrations that are above the action levels are retained as chemicals of potential concern. The following write-up outlines the guidance and explains the screening process.

Region III Guidance

USEPA's Region III Technical Manual for Risk Assessment, *Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening* (USEPA, 1993) presents a new methodology that uses an absolute comparison of risk rather than the relative concentration toxicity screen outlined in the *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A)* to select contaminants. The new guidance provides risk-based concentrations for 600 contaminants in air, drinking water, fish, and soil which correspond to a lifetime cancer risk of 1×10^{-6} or systemic hazard quotient of 0.1. The risk-based values are based on exposure algorithms developed by USEPA (1991) and current toxicity values from the EPA Integrated Risk Information System (IRIS) and the EPA 1994 Health Effects Assessment Summary Tables (HEAST). Algorithms used in the risk-based screen address exposures from ingestion and inhalation of contaminants during residential water use, ingestion of contaminants found in residential soils and inhalation of ambient air. These algorithms are presented in Tables C5-1 thru C5-3.

Algorithms and exposure factors in the Region III Guidance are incorporated into a relational database model which calculates risk-based water and soil concentrations using an allowable cancer risk of 10^{-6}. For systemic toxicants, the model calculates risk-based concentrations using a hazard quotient of 0.1. Subsequently, the Region III screening process is applied.

Steps Used in the Screening Process

The steps used in the screening process that are incorporated in the spreadsheet model are outlined below:

- Maximum detected concentrations for each contaminant are identified and compared to the risk-based concentrations for each medium.

- In cases where the maximum concentration exceeds the risk-based concentration, the contaminant is retained for inclusion in all exposure routes involving that medium. Otherwise the contaminant is eliminated from that medium.

- If a given contaminant does not exceed the risk-based concentration for any medium, then the contaminant is eliminated from the assessment.

All contaminants and/or media eliminated by this process are kept on a separate list to be considered for re-inclusion in the assessment. Reasons for re-inclusion include: historical information, exceptional toxicity, mobility, persistence, special exposure routes, or treatability problems. No pesticides were eliminated by this process based on historical use at the site.

Table C5-1

EPA Region III Screening Algorithms for Residential Water

[a]Carcinogens:

$$C(mg/kg) = \frac{Risk \times 365\ days/yr \times ATc \times 1000\mu g/mg}{EF \times ([VF \times IFA_{adj} \times SFi] + [IFW_{adj} \times SFo])}$$

[b]Non-Carcinogens:

$$C\ (mg/kg) = \frac{HQ \times BWa \times 365\ days/yr \times ATn \times 1000\mu g/mg}{EF \times EDa \times (VF \times IRAa/RfDi + IRWa/RfDo)}$$

Exposure Variables:

C	=	Risk-Based Concentration (mg/kg)
Risk	=	Target Cancer Risk: 10^{-6}
ATc	=	Averaging Time Carcinogens (y): 70
EF	=	Exposure frequency (d/y): 350
VF	=	Volatilization factor (L/m^3): 0.5
IFA_{adj}	=	Inhalation Factor, Age-adjusted (m^3-y/kg-d): 11.66
SFi	=	Chemical-Specific Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$
IFW_{adj}	=	Tap Water Ingestion Factor, Age-Adjusted (L-y/kg-d): 1.09
SFo	=	Chemical-Specific Oral Slope Factor $(mg/kg\text{-}day)^{-1}$
HQ	=	Target Hazard Quotient: 0.1
BWa	=	Body Weight, Adult (kg): 70
ATn	=	Averaging Time Non-carcinogens (y): 30
EDa	=	Exposure Duration, Adult: 30
IRAa	=	Inhalation Rate, Adult (m^3/d): 20
RfDi	=	Chemical-Specific Inhalation Reference Dose (mg/kg/d)
IRWa	=	Tap Water Ingestion, Adult (L/d): 2
RfDo	=	Chemical-Specific Oral Reference Dose (mg/kg/d)

a Carcinogenic calculations are based on combined childhood and adult exposure.
b Non-carcinogenic calculations are based on adult exposure only.

Equations from:
EPA Region III, 1994. Risk-Based Concentration Table, Second Quarter 1994. Hazardous Waste Management Division, Office of Superfund Programs, Philadelphia, PA. April 1994.

Table C5-2

EPA Region III Screening Algorithms for Residential Soils

[a]Carcinogens:

$$C\ (mg/L) = \frac{Risk \times 365\ days/yr \times ATc}{EF \times \frac{IFSadj}{10^6\ mg/kg} \times SFo}$$

[b]Non-Carcinogens:

$$C\ (mg/L) = \frac{HQ \times RfDo \times BWc \times 365\ days/yr \times ATn}{EF \times EDc \times \frac{IRSc}{10^6\ mg/kg}}$$

Exposure Variables:

C	=	Risk-Based Concentration (mg/kg)
Risk	=	Target Cancer Risk (unitless): 10^{-6}
ATc	=	Averaging Time Carcinogens (y): 70
EF	=	Exposure Frequency (d/y): 350
IFSadj	=	Soil Ingestion Factor, Age Adjusted (mg-y/kg-d): 114.29
EDc	=	Exposure Duration, age 1-6 (y): 6
SFo	=	Chemical-Specific Oral Slope Factor $(mg/kg\text{-}day)^{-1}$
HQ	=	Target Hazard Quotient (unitless): 0.1
RfDo	=	Chemical-Specific Oral Reference Dose (mg/kg/d)
BWc	=	Body Weight, Age 1-6 (kg): 15
ATn	=	Averaging Time Non-Carcinogens (y): 6
IRSc	=	Soil Ingestion, Age 1-6 (mg/d): 200

[a] Carcinogenic calculations are based on combined child and adult exposure.
[b] Non-carcinogenic calculations are based on childhood exposure only.

Equations from:

EPA Region III, 1994. Risk-Based Concentration Table, Second Quarter 1994. Hazardous Waste Management Division, Office of Superfund Programs, Philadelphia, PA. April 1994.

Table C5-3

EPA Region III Screening Algorithms for Ambient Air

[a]Carcinogens:

$$C\ (\mu g/m^3) = \frac{Risk \times ATc \times 1000\ \mu g/mg}{EF \times IFA_{adj} \times SFi}$$

[b]Non-Carcinogens:

$$C\ (\mu g/m^3) = \frac{HQ \times RfDi \times BWa \times 365\ days/yr \times ATn \times 1000 \mu g/mg}{EF \times EDa \times IRAa}$$

Exposure Variables:

C	=	Risk-Based Concentration ($\mu g/m^3$)
Risk	=	Target Cancer Risk (unitless): 10^{-6}
ATc	=	Averaging Time Carcinogens (y): 70
EF	=	Exposure Frequency (d/y): 350
IFAadj	=	Inhalation Factor, age-adjusted (m^3-y/kg-d): 11.66
EDa	=	Exposure Duration, Adult (y): 30
SFi	=	Chemical-Specific Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$
HQ	=	Target Hazard Quotient (unitless): 0.1
RfDi	=	Chemical-Specific Inhalation Reference Dose (mg/kg/d)
BWa	=	Body Weight, Adult (kg): 70
ATn	=	Averaging Time Non-Carcinogens (y): 30
IRAa	=	Inhalation Rate, Adult (m^3/d): 20

[a] Carcinogen calculations are based on combined childhood and adult exposure.
[b] Non-carcinogen calculations are based on adult exposure only.

Equations from:
EPA Region III, 1994. Risk-Based Concentration Table, Second Quarter 1994. Hazardous Waste Management Division, Office of Superfund Programs, Philadelphia, PA. April 1994.

Risk-Based Screening Results

For Quantitative Risk Assessments

Risk-Based Screening Results - Surface Soil
SWMU 118/132/AOC-A

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
PCB-1260	0.00E+00	7.70E+00	0.58	0.14	0.31	0.08	7.00	YES
Heptachlor epoxide	1.00E-05	9.10E+00	0.39	0.19	1.41	0.07	5.50	YES
MCPA	5.00E-04	0.00E+00	21.50	17.75	41.43	39.11	0.55	NO
Aldrin	3.00E-05	1.70E+01	0.01	0.00	0.03	0.04	0.25	NO
Dieldrin	5.00E-05	1.60E+01	0.01	0.00	0.03	0.04	0.23	NO
alpha-BHC	0.00E+00	6.30E+00	0.01	0.00	0.02	0.10	0.05	NO
Dichlorvos	0.00E+00	2.90E-01	0.05	0.05	0.00	2.20	0.02	NO
Methyl azinphos	1.60E-04	0.00E+00	0.25	0.13	0.90	12.20	0.02	NO
gamma-BHC	3.00E-04	1.30E+00	0.01	0.00	0.02	0.49	0.01	NO
4,4'-DDT	5.00E-04	3.40E-01	0.01	0.01	0.04	1.88	0.01	NO
4,4'-DDD	0.00E+00	2.40E-01	0.01	0.01	0.03	2.66	0.00	NO
Chlorpyrifos (Dursban)	3.00E-03	0.00E+00	0.53	0.53	0.00	234.64	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	0.14	0.01	0.04	85.16	0.00	NO
Diazinon	9.00E-04	0.00E+00	0.08	0.08	0.00	70.39	0.00	NO
Mevinphos	1.30E-04	0.00E+00	0.00	0.00	0.00	10.40	0.00	NO
Endrin	3.00E-04	0.00E+00	0.01	0.00	0.03	23.46	0.00	NO
Dinoseb	1.00E-03	0.00E+00	0.02	0.02	0.06	78.21	0.00	NO
Acetone	1.00E-01	0.00E+00	2.20	0.38	0.77	7821.43	0.00	NO
Endrin Aldehyde	3.00E-04	0.00E+00	0.00	0.00	0.01	23.46	0.00	NO
Coumaphos	2.90E-04	0.00E+00	0.00	0.00	0.00	22.60	0.00	NO
Methyl parathion	3.00E-04	0.00E+00	0.00	0.00	0.00	23.46	0.00	NO
Fenthion	5.36E-03	0.00E+00	0.01	0.01	0.00	419.23	0.00	NO
2,4,5-TP (Silvex)	1.00E-02	0.00E+00	0.01	0.01	0.02	782.14	0.00	NO
2,4,5-T	1.00E-02	0.00E+00	0.01	0.01	0.01	782.14	0.00	NO
delta-BHC	0.00E+00	0.00E+00	0.01	0.01	0.05	0.00	0.00	NV
Toluene	2.00E-01	0.00E+00	0.01	0.00	0.00	15642.86	0.00	NO
Sulprofos (Bolstar)	6.76E-03	0.00E+00	0.00	0.00	0.00	528.73	0.00	NO
Merphos B	1.84E+01	0.00E+00	0.01	0.01	0.00	1439142.86	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	133.00	36.22	59.84	0.00	0.00	NV

Risk-Based Screening Results -- Subsurface Soil
SWMU 118/132/AOC-A

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
PCB-1260	0.00E+00	7.70E+00	0.64	0.52	1.26	0.08	7.70	YES
Aldrin	3.00E-05	1.70E+01	0.03	0.01	0.01	0.04	0.91	NO
MCPA	5.00E-04	0.00E+00	15.00	5.15	8.51	39.11	0.38	NO
Heptachlor epoxide	1.00E-05	9.10E+00	0.01	0.00	0.00	0.07	0.09	NO
alpha-BHC	0.00E+00	6.30E+00	0.00	0.00	0.00	0.10	0.04	NO
Dieldrin	5.00E-05	1.60E+01	0.00	0.00	0.00	0.04	0.04	NO
4,4'-DDT	5.00E-04	3.40E-01	0.05	0.01	0.02	1.88	0.03	NO
Methyl azinphos	1.60E-04	0.00E+00	0.27	0.04	0.11	12.20	0.02	NO
Methylene Chloride	6.00E-02	7.50E-03	1.20	0.08	0.22	85.16	0.01	NO
Chlorpyrifos (Dursban)	3.00E-03	0.00E+00	2.70	0.46	1.36	234.64	0.01	NO
Heptachlor	5.00E-04	4.50E+00	0.00	0.00	0.00	0.14	0.01	NO
gamma-BHC	3.00E-04	1.30E+00	0.00	0.00	0.00	0.49	0.01	NO
Endrin	3.00E-04	0.00E+00	0.16	0.02	0.04	23.46	0.01	NO
4,4'-DDD	0.00E+00	2.40E-01	0.01	0.00	0.00	2.66	0.00	NO
Chrysene	0.00E+00	3.21E-02	0.07	0.06	156.46	19.90	0.00	NO
Endrin Aldehyde	3.00E-04	0.00E+00	0.05	0.01	0.02	23.46	0.00	NO
4,4'-DDE	0.00E+00	3.40E-01	0.00	0.00	0.00	1.88	0.00	NO
Phorate	2.00E-04	0.00E+00	0.03	0.01	0.01	15.64	0.00	NO
Fluorene	4.00E-02	0.00E+00	3.11	2.77	4927.11	3128.57	0.00	NO
Diazinon	9.00E-04	0.00E+00	0.03	0.01	0.02	70.39	0.00	NO
Mevinphos	1.30E-04	0.00E+00	0.00	0.00	0.00	10.40	0.00	NO
Acetone	1.00E-01	0.00E+00	2.40	0.34	0.64	7821.43	0.00	NO
Methoxychlor	5.00E-03	0.00E+00	0.10	0.02	0.03	391.07	0.00	NO
Pyrene	3.00E-02	0.00E+00	0.27	0.24	408.47	2346.43	0.00	NO
2,4-D	1.00E-02	0.00E+00	0.07	0.04	0.06	782.14	0.00	NO
Endosulfan II	6.00E-03	0.00E+00	0.02	0.01	0.01	469.29	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	0.06	0.04	151.83	3128.57	0.00	NO
Carbon disulfide	1.00E-01	0.00E+00	0.12	0.02	0.03	7821.43	0.00	NO
Sulprofos (Bolstar)	6.76E-03	0.00E+00	0.00	0.00	0.00	528.73	0.00	NO
Methyl ethyl ketone	6.00E-01	0.00E+00	0.30	0.16	0.20	46928.57	0.00	NO
Fenthion	5.36E-03	0.00E+00	0.01	0.00	0.00	419.23	0.00	NO
Dicamba	3.00E-02	0.00E+00	0.02	0.00	0.01	2346.43	0.00	NO
2,4,5-TP (Silvex)	1.00E-02	0.00E+00	0.01	0.00	0.01	782.14	0.00	NO
delta-BHC	0.00E+00	0.00E+00	0.06	0.01	0.02	0.00	0.00	NV

Risk-Based Screening Results -- Subsurface Soil
SWMU 118/132/AOC-A

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Xylene (total)	2.00E+00	0.00E+00	0.08	0.04	0.05	156428.57	0.00	NO
Toluene	2.00E-01	0.00E+00	0.01	0.00	0.00	15642.86	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	4.75	4.00	8712.80	0.00	0.00	NV
Naled	0.00E+00	0.00E+00	0.02	0.01	0.01	0.00	0.00	NV
Merphos B	1.84E+01	0.00E+00	0.00	0.00	0.00	1439142.86	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	18900.00	1999.63	4441.30	0.00	0.00	NV
Ethyl benzene	1.00E-01	0.00E+00	0.01	0.01	0.01	7821.43	0.00	NO
Endosulfan I	6.00E-03	0.00E+00	0.00	0.00	0.00	469.29	0.00	NO
Dichloroprop	0.00E+00	0.00E+00	0.20	0.06	0.11	0.00	0.00	NV
Chloromethane	0.00E+00	0.00E+00	0.24	0.02	0.05	0.00	0.00	NV

Risk-Based Screening Results -- Groundwater
SWMU 118/132/AOC-A

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Heptachlor epoxide	1.00E-05	9.10E+00	0.00	0.00	0.00	0.00	174.25	YES
alpha-BHC	0.00E+00	6.30E+00	0.00	0.00	0.00	0.00	141.10	YES
Dieldrin	5.00E-05	1.60E+01	0.00	0.00	0.00	0.00	35.84	YES
gamma-BHC	3.00E-04	1.30E+00	0.00	0.00	0.00	0.00	19.41	YES
Trichloroethene	0.00E+00	1.10E-02	0.02	0.01	0.02	0.00	14.80	YES
Methylene Chloride	6.00E-02	7.50E-03	0.02	0.01	0.02	0.00	4.32	YES
Chlorobenzene	2.00E-02	0.00E+00	0.06	0.02	0.05	0.04	1.60	YES
Benzene	0.00E+00	2.90E-02	0.00	0.00	0.00	0.00	1.06	YES
1,4-Dichlorobenzene	0.00E+00	2.40E-02	0.00	0.00	0.00	0.00	0.88	NO
Chlorobenzene	2.00E-02	0.00E+00	0.02	0.01	0.02	0.04	0.48	NO
Chloroform	1.00E-02	6.10E-03	0.01	0.00	0.00	0.01	0.46	NO
4,4'-DDE	0.00E+00	3.40E-01	0.00	0.00	0.00	0.00	0.18	NO
4,4'-DDT	5.00E-04	3.40E-01	0.00	0.00	0.00	0.00	0.10	NO
Endrin	3.00E-04	0.00E+00	0.00	0.00	0.00	0.01	0.03	NO
Endrin Aldehyde	3.00E-04	0.00E+00	0.00	0.00	0.00	0.01	0.02	NO
1,1,1-Trichloroethane	9.00E-02	0.00E+00	0.02	0.01	0.02	1.28	0.02	NO
1,1-Dichloroethane	1.00E-01	0.00E+00	0.01	0.00	0.01	0.81	0.01	NO
Methyl parathion	3.00E-04	0.00E+00	0.00	0.00	0.00	0.01	0.00	NO
Endosulfan Sulfate	6.00E-03	0.00E+00	0.00	0.00	0.00	0.22	0.00	NO
Endosulfan I	6.00E-03	0.00E+00	0.00	0.00	0.00	0.22	0.00	NO
Ethyl benzene	1.00E-01	0.00E+00	0.00	0.00	0.00	1.33	0.00	NO
1,2-Dichlorobenzene	9.00E-02	0.00E+00	0.00	0.00	0.00	0.37	0.00	NO
1,3-Dichlorobenzene	0.00E+00	0.00E+00	0.00	0.00	0.00	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 129/178

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Benzo(a)pyrene	0.00E+00	7.30E+00	0.12	0.02	21.59	0.09	1.41	YES
Benzo(b)fluoranthene	0.00E+00	1.22E+00	0.27	0.03	42.70	0.52	0.51	NO
Benzo(a)anthracene	0.00E+00	1.06E+00	0.12	0.02	22.66	0.60	0.20	NO
Benzo(k)fluoranthene	0.00E+00	1.46E-01	0.27	0.03	43.88	4.37	0.06	NO
Indeno(1,2,3-cd)pyrene	0.00E+00	4.01E-01	0.06	0.01	15.88	1.59	0.04	NO
Chrysene	0.00E+00	3.21E-02	0.22	0.02	32.68	19.90	0.01	NO
Pyrene	3.00E-02	0.00E+00	0.23	0.02	36.21	2346.43	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	0.23	0.02	36.88	3128.57	0.00	NO
Trichloroethene	0.00E+00	1.10E-02	0.00	0.00	0.00	58.07	0.00	NO
Benzene	0.00E+00	2.90E-02	0.00	0.00	0.00	22.03	0.00	NO
Dibutylphthalate	1.00E-01	0.00E+00	0.19	0.02	27.19	7821.43	0.00	NO
Toluene	2.00E-01	0.00E+00	0.01	0.00	0.00	15642.86	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	0.08	0.02	20.22	0.00	0.00	NV
Hydrocarbons	0.00E+00	0.00E+00	1430.00	158.11	255.43	0.00	0.00	NV
Ethyl benzene	1.00E-01	0.00E+00	0.00	0.00	0.00	7821.43	0.00	NO
Benzo(g,h,i)perylene	0.00E+00	0.00E+00	0.08	0.02	26.74	0.00	0.00	NV
Anthracene	3.00E-01	0.00E+00	0.02	0.00	5.80	23464.29	0.00	NO
Aniline	0.00E+00	5.70E-03	0.25	0.03	47.56	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	1480.00	67.40	145.99	0.00	0.00	NV

Risk-Based Screening Results -- Subsurface Soil
SWMU 129/178

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Methylene Chloride	6.00E-02	7.50E-03	0.31	0.05	0.13	85.16	0.00	NO
Acetone	1.00E-01	0.00E+00	2.50	0.53	1.23	7821.43	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	62.00	3.03	7.70	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	9.87	3.92	4.71	0.00	0.00	NV

Risk-Based Screening ..sults -- Groundwater
SWMU 129/178

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Beryllium	5.00E-03	4.30E+00	0.00	0.00	0.00	0.00	288.92	YES
Bromodichloromethane	2.00E-02	6.00E-02	0.01	0.00	0.01	0.00	28.44	YES
Nitrate-Nitrite as N	1.00E-01	0.00E+00	97.00	38.91	58.06	3.65	26.58	YES
Trichloroethene	0.00E+00	1.10E-02	0.02	0.01	0.02	0.00	15.44	YES
Chloroform	1.00E-02	6.10E-03	0.01	0.00	0.00	0.01	0.46	NO
Selenium	5.00E-03	0.00E+00	0.02	0.01	0.02	0.18	0.09	NO
Toluene	2.00E-01	0.00E+00	0.01	0.00	0.01	0.75	0.01	NO
Lead	0.00E+00	0.00E+00	0.02	0.01	0.01	0.00	0.00	NV

Risk-Based Screening Results -- Surface Soil
SWMUs 54/55 and 21/22/123

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	3.50	3.13	3.76	23.46	0.15	NO
Benzo(a)anthracene	0.00E+00	1.06E+00	0.08	0.05	75.43	0.60	0.14	NO
Cadmium (food)	1.00E-03	0.00E+00	2.31	1.03	2.11	78.21	0.03	NO
Barium	7.00E-02	0.00E+00	77.40	61.70	77.89	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	2.00	1.66	2.27	391.07	0.01	NO
Chrysene	0.00E+00	3.21E-02	0.08	0.05	67.45	19.90	0.00	NO
Chromium	1.00E+00	0.00E+00	27.80	16.21	25.83	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	0.00	0.00	0.00	85.16	0.00	NO
Naphthalene	4.00E-02	0.00E+00	0.09	0.07	82.68	3128.57	0.00	NO
Pyrene	3.00E-02	0.00E+00	0.04	0.03	40.06	2346.43	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	0.07	0.04	58.80	0.00	0.00	NV
Hydrocarbons	0.00E+00	0.00E+00	10300.00	1180.62	2858.00	0.00	0.00	NV
2-Methylnaphthalene	0.00E+00	0.00E+00	0.20	0.14	176.68	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	220.00	95.93	202.19	0.00	0.00	NV

Risk-Based Screening Results -- Subsurface Soil
SWMUs 54/55 and 21/22/123

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
1,1-Dichloroethene	9.00E-03	6.00E-01	7.21	0.49	0.89	1.06	6.77	YES
Benzene	0.00E+00	2.90E-02	54.00	2.18	4.54	22.03	2.45	YES
Arsenic	3.00E-04	0.00E+00	5.12	2.02	2.73	23.46	0.22	NO
Ethyl benzene	1.00E-01	0.00E+00	229.00	10.83	21.21	7821.43	0.03	NO
Cadmium (food)	1.00E-03	0.00E+00	2.00	0.17	0.33	78.21	0.03	NO
Toluene	2.00E-01	0.00E+00	345.00	10.97	25.87	15642.86	0.02	NO
Selenium	5.00E-03	0.00E+00	4.64	2.32	2.94	391.07	0.01	NO
Mercury	3.00E-04	0.00E+00	0.06	-0.01	0.01	23.46	0.00	NO
Xylene (total)	2.00E+00	0.00E+00	363.00	12.92	28.81	156428.57	0.00	NO
Chromium	1.00E+00	0.00E+00	21.10	7.41	8.93	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	0.02	0.00	0.00	85.16	0.00	NO
Naphthalene	4.00E-02	0.00E+00	0.40	0.23	262.14	3128.57	0.00	NO
Acetone	1.00E-01	0.00E+00	0.78	0.07	0.12	7821.43	0.00	NO
Trichloroethene	0.00E+00	1.10E-02	0.00	0.00	0.00	58.07	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	5314.93	313.17	575.38	0.00	0.00	NV
Dibenzofuran	0.00E+00	0.00E+00	0.47	0.24	269.34	0.00	0.00	NV
Carbon disulfide	1.00E-01	0.00E+00	0.01	0.01	0.01	7821.43	0.00	NO
4-Methyl-2-Pentanone(MIBK)	5.00E-02	0.00E+00	0.01	0.00	0.00	3910.71	0.00	NO
2-Methylnaphthalene	0.00E+00	0.00E+00	4.38	0.96	1161.39	0.00	0.00	NV
2-Hexanone	0.00E+00	0.00E+00	0.01	0.00	0.00	0.00	0.00	NV

Risk-Based Screening Results -- Groundwater
SWMU 54/55 and 21/22/123

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Benzene	0.00E+00	2.90E-02	5.00	0.87	1.63	0.00	13745.21	YES
Beryllium	5.00E-03	4.30E+00	0.02	0.01	0.02	0.00	963.08	YES
Tetrachloroethene	1.00E-02	5.20E-02	0.04	0.02	0.03	0.00	36.51	YES
Arsenic	3.00E-04	0.00E+00	0.15	0.06	0.13	0.01	13.61	YES
Ethyl benzene	1.00E-01	0.00E+00	12.40	6.35	8.66	1.33	9.34	YES
Toluene	2.00E-01	0.00E+00	0.70	0.07	0.18	0.75	0.94	NO
Barium	7.00E-02	0.00E+00	1.03	0.45	0.95	2.56	0.40	NO
Xylene (total)	2.00E+00	0.00E+00	1.40	0.17	0.40	12.17	0.12	NO
4-Methyl-2-Pentanone(MIBK)	5.00E-02	0.00E+00	0.04	0.03	0.03	1.83	0.02	NO
Naphthalene	4.00E-02	0.00E+00	0.01	0.01	0.01	1.46	0.01	NO
Chromium	1.00E+00	0.00E+00	0.13	0.06	0.12	36.50	0.00	NO
Lead	0.00E+00	0.00E+00	0.09	0.04	0.08	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 164

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
1,1-Dichloroethene	9.00E-03	6.00E-01	0.63	0.47	0.62	1.06	0.59	NO
Arsenic	3.00E-04	0.00E+00	3.17	1.51	2.22	23.46	0.14	NO
Benzene	0.00E+00	2.90E-02	0.28	0.19	0.28	22.03	0.01	NO
Ethyl benzene	1.00E-01	0.00E+00	54.70	21.78	50.21	7821.43	0.01	NO
Selenium	5.00E-03	0.00E+00	2.58	2.36	2.52	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	0.29	0.02	0.10	78.21	0.00	NO
Toluene	2.00E-01	0.00E+00	41.40	16.40	37.81	15642.86	0.00	NO
Xylene (total)	2.00E+00	0.00E+00	106.00	42.20	97.29	156428.57	0.00	NO
Chromium	1.00E+00	0.00E+00	6.99	5.56	6.25	78214.29	0.00	NO
Lead	0.00E+00	0.00E+00	14.10	6.35	10.20	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 164

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Action Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	1.02	0.76	1.07	23.46	0.04	NO
Barium	7.00E-02	0.00E+00	64.20	61.70	66.50	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	2.36	1.15	2.16	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	0.24	0.04	0.23	78.21	0.00	NO
Chromium	1.00E+00	0.00E+00	13.70	9.82	13.13	78214.29	0.00	NO
Toluene	2.00E-01	0.00E+00	0.00	0.00	0.00	15642.86	0.00	NO
Lead	0.00E+00	0.00E+00	6.54	4.69	6.40	0.00	0.00	NV

Risk-Based Screening Results - Fugititve Dust in Ambient Air
SWMU 164

Chemical Name	Inhalation RfD (mg/kg/day)	Inhalation Slope Factor (mg/kg/day)-1	Maximum Detection (ug/m3)	Mean (ug/m3)	UCL (ug/m3)	Region III Screening Level (ug/m3)	Regulatory Ratio	Surpasses Criteria
Chromium	5.70E-07	0.00E+00	9.49E-02	0.00E+00	0.00E+00	0.0002	456.37	YES
Arsenic	0.00E+00	1.51E+01	1.60E-02	0.00E+00	0.00E+00	0.0004	38.66	YES
Barium	1.40E-04	0.00E+00	4.81E-01	0.00E+00	0.00E+00	0.0522	9.21	YES
Cadmium	0.00E+00	6.10E+00	1.68E-03	0.00E+00	0.00E+00	0.0010	1.64	YES
Benzene	1.40E-04	2.90E-02	2.06E-03	0.00E+00	0.00E+00	0.0522	0.04	NO
1,1-Dichloroethene	9.00E-03	1.75E-01	4.49E-03	0.00E+00	0.00E+00	0.3578	0.01	NO
Toluene	1.14E-01	0.00E+00	2.73E-01	0.00E+00	0.00E+00	41.6100	0.01	NO
Ethyl benzene	2.86E-01	0.00E+00	3.63E-01	0.00E+00	0.00E+00	104.3900	0.00	NO
Xylene (total)	0.00E+00	0.00E+00	7.03E-01	0.00E+00	0.00E+00	0.0000	0.00	NV
Selenium	0.00E+00	0.00E+00	1.82E-02	0.00E+00	0.00E+00	0.0000	0.00	NV
Lead	0.00E+00	0.00E+00	7.38E-02	0.00E+00	0.00E+00	0.0000	0.00	NV

Risk-Based Screening Results - Fugitive Dust in Ambient Air
SWMU 118/132/AOC-A

Chemical Name	Inhalation RfD (mg/kg/day)	Inhalation Slope Factor (mg/kg/day)-1	Maximum Detection (ug/m3)	Mean (ug/m3)	UCL (ug/m3)	Region III Screening Level (ug/m3)	Regulatory Ratio	Surpasses Criteria
Aldrin	0.00E+00	1.70E+01	2.07E-05	0.00E+00	0.00E+00	0.0004	0.06	NO
Dieldrin	0.00E+00	1.60E+01	2.02E-05	0.00E+00	0.00E+00	0.0004	0.05	NO
alpha-BHC	0.00E+00	6.30E+00	1.20E-05	0.00E+00	0.00E+00	0.0010	0.01	NO
Heptachlor epoxide	0.00E+00	9.10E+00	1.44E-06	0.00E+00	0.00E+00	0.0007	0.00	NO
4,4'-DDT	0.00E+00	3.40E-01	2.67E-05	0.00E+00	0.00E+00	0.0184	0.00	NO
Heptachlor	0.00E+00	4.50E+00	2.70E-07	0.00E+00	0.00E+00	0.0014	0.00	NO
Methylene Chloride	8.57E-01	1.60E-03	1.42E-04	0.00E+00	0.00E+00	3.9130	0.00	NO
Carbon disulfide	2.86E-03	0.00E+00	1.83E-05	0.00E+00	0.00E+00	1.0439	0.00	NO
gamma-BHC	0.00E+00	0.00E+00	1.50E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
delta-BHC	0.00E+00	0.00E+00	3.20E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Xylene (total)	0.00E+00	0.00E+00	3.37E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Toluene	1.14E-01	0.00E+00	2.90E-06	0.00E+00	0.00E+00	41.6100	0.00	NO
Sulprofos (Bolstar)	0.00E+00	0.00E+00	1.49E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Pyrene	0.00E+00	0.00E+00	2.61E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Phorate	0.00E+00	0.00E+00	8.29E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Phenanthrene	0.00E+00	0.00E+00	5.56E-03	0.00E+00	0.00E+00	0.0000	0.00	NV
Naled	0.00E+00	0.00E+00	7.10E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Mevinphos	0.00E+00	0.00E+00	2.19E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Methyl parathion	0.00E+00	0.00E+00	1.04E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Methyl ethyl ketone	2.86E-01	0.00E+00	1.30E-04	0.00E+00	0.00E+00	104.3900	0.00	NO
Methyl azinphos	0.00E+00	0.00E+00	5.75E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Methoxychlor	0.00E+00	0.00E+00	2.20E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Merphos B	0.00E+00	0.00E+00	1.65E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
MCPA	0.00E+00	0.00E+00	2.64E-02	0.00E+00	0.00E+00	0.0000	0.00	NV
Hydrocarbons	0.00E+00	0.00E+00	2.83E+00	0.00E+00	0.00E+00	0.0000	0.00	NV
Fluorene	0.00E+00	0.00E+00	3.14E-03	0.00E+00	0.00E+00	0.0000	0.00	NV
Fluoranthene	0.00E+00	0.00E+00	9.69E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Fenthion	0.00E+00	0.00E+00	2.69E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Ethyl benzene	2.86E-01	0.00E+00	5.64E-06	0.00E+00	0.00E+00	104.3900	0.00	NO
Endrin Aldehyde	0.00E+00	0.00E+00	1.06E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Endrin	0.00E+00	0.00E+00	2.83E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Endosulfan II	0.00E+00	0.00E+00	5.58E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Endosulfan I	0.00E+00	0.00E+00	3.20E-07	0.00E+00	0.00E+00	0.0000	0.00	NV
Dinoseb	0.00E+00	0.00E+00	3.91E-05	0.00E+00	0.00E+00	0.0000	0.00	NV

Risk-Based Screening Results - _ agitive Dust in Ambient Air
SWMU 118/132/AOC-A

(continued)

Chemical Name	Inhalation RfD (mg/kg/day)	Inhalation Slope Factor (mg/kg/day)-1	Maximum Detection (ug/m3)	Mean (ug/m3)	UCL (ug/m3)	Region III Screening Level (ug/m3)	Regulatory Ratio	Surpasses Criteria
Dichlorvos	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.0000	0.00	NV
Dichloroprop	0.00E+00	0.00E+00	7.23E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Dicamba	0.00E+00	0.00E+00	5.02E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Diazinon	0.00E+00	0.00E+00	1.13E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Coumaphos	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.0000	0.00	NV
Chrysene	0.00E+00	0.00E+00	9.98E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Chlorpyrifos (Dursban)	0.00E+00	0.00E+00	8.68E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Chloromethane	0.00E+00	6.30E-03	2.90E-05	0.00E+00	0.00E+00	9.9377	0.00	NO
Acetone	0.00E+00	0.00E+00	4.91E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
4,4'-DDE	0.00E+00	0.00E+00	1.30E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
4,4'-DDD	0.00E+00	0.00E+00	2.15E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
2,4-D	0.00E+00	0.00E+00	3.54E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
2,4,5-TP (Silvex)	0.00E+00	0.00E+00	9.67E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
2,4,5-T	0.00E+00	0.00E+00	7.48E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
PCB-1260	0.00E+00	0.00E+00	8.02E-04	0.00E+00	0.00E+00	0.0000	0.00	NV

Risk-Based Screening Results - Fugitive Dust in Ambient Air
SWMU 129/178

Chemical Name	Inhalation RfD (mg/kg/day)	Inhalation Slope Factor (mg/kg/day)-1	Maximum Detection (ug/m3)	Mean (ug/m3)	UCL (ug/m3)	Region III Screening Level (ug/m3)	Regulatory Ratio	Surpasses Criteria
Benzo(a)pyrene	0.00E+00	6.10E+00	1.38E-04	0.00E+00	0.00E+00	0.0010	0.13	NO
Aniline	2.90E-04	0.00E+00	3.03E-04	0.00E+00	0.00E+00	0.1059	0.00	NO
Methylene Chloride	8.57E-01	1.60E-03	8.37E-04	0.00E+00	0.00E+00	3.9130	0.00	NO
Benzene	1.40E-04	2.90E-02	3.29E-06	0.00E+00	0.00E+00	0.0522	0.00	NO
Trichloroethene	0.00E+00	6.00E-03	1.23E-05	0.00E+00	0.00E+00	1.0435	0.00	NO
Toluene	1.14E-01	0.00E+00	1.33E-05	0.00E+00	0.00E+00	41.6100	0.00	NO
Pyrene	0.00E+00	0.00E+00	2.31E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Phenanthrene	0.00E+00	0.00E+00	1.29E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Indeno(1,2,3-cd)pyrene	0.00E+00	0.00E+00	1.01E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Hydrocarbons	0.00E+00	0.00E+00	1.63E+00	0.00E+00	0.00E+00	0.0000	0.00	NV
Fluoranthene	0.00E+00	0.00E+00	2.35E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Ethyl benzene	2.86E-01	0.00E+00	5.56E-06	0.00E+00	0.00E+00	104.3900	0.00	NO
Dibutylphthalate	0.00E+00	0.00E+00	1.73E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Chrysene	0.00E+00	0.00E+00	2.08E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Benzo(k)fluoranthene	0.00E+00	0.00E+00	2.80E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Benzo(g,h,i)perylene	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Benzo(b)fluoranthene	0.00E+00	0.00E+00	2.72E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Benzo(a)anthracene	0.00E+00	0.00E+00	1.45E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Anthracene	0.00E+00	0.00E+00	3.70E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Acetone	0.00E+00	0.00E+00	7.87E-03	0.00E+00	0.00E+00	0.0000	0.00	NV
Lead	0.00E+00	0.00E+00	9.31E-01	0.00E+00	0.00E+00	0.0000	0.00	NV

Risk-Based Screening Results .gitive Dust in Ambient Air
SWMUs 54/55 and 21/22/123

Chemical Name	Inhalation RfD (mg/kg/day)	Inhalation Slope Factor (mg/kg/day)-1	Maximum Detection (ug/m3)	Mean (ug/m3)	UCL (ug/m3)	Region III Screening Level (ug/m3)	Regulatory Ratio	Surpasses Criteria
Chromium	5.70E-07	0.00E+00	4.39E-02	0.00E+00	0.00E+00	0.0002	211.15	YES
Arsenic	0.00E+00	1.51E+01	6.40E-03	0.00E+00	0.00E+00	0.0004	15.43	YES
Cadmium	0.00E+00	6.10E+00	3.60E-03	0.00E+00	0.00E+00	0.0010	3.50	YES
Barium	1.40E-04	0.00E+00	1.32E-01	0.00E+00	0.00E+00	0.0522	2.54	YES
Benzene	1.40E-04	2.90E-02	7.73E-03	0.00E+00	0.00E+00	0.0522	0.15	NO
1,1-Dichloroethene	9.00E-03	1.75E-01	1.51E-03	0.00E+00	0.00E+00	0.3578	0.00	NO
Toluene	1.14E-01	0.00E+00	4.40E-02	0.00E+00	0.00E+00	41.6100	0.00	NO
Ethyl benzene	2.86E-01	0.00E+00	3.61E-02	0.00E+00	0.00E+00	104.3900	0.00	NO
Mercury	1.00E-03	0.00E+00	1.02E-05	0.00E+00	0.00E+00	0.3650	0.00	NO
Carbon disulfide	2.86E-03	0.00E+00	1.35E-05	0.00E+00	0.00E+00	1.0439	0.00	NO
Xylene (total)	0.00E+00	0.00E+00	4.90E-02	0.00E+00	0.00E+00	0.0000	0.00	NV
Trichloroethene	0.00E+00	6.00E-03	2.72E-06	0.00E+00	0.00E+00	1.0435	0.00	NO
Pyrene	0.00E+00	0.00E+00	6.82E-05	0.00E+00	0.00E+00	0.0000	0.00	NV
Phenanthrene	0.00E+00	0.00E+00	1.00E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Naphthalene	0.00E+00	0.00E+00	4.46E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Methylene Chloride	8.57E-01	1.60E-03	5.57E-06	0.00E+00	0.00E+00	3.9130	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	4.86E+00	0.00E+00	0.00E+00	0.0000	0.00	NV
Dibenzofuran	0.00E+00	0.00E+00	4.58E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Chrysene	0.00E+00	0.00E+00	1.15E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Benzo(a)anthracene	0.00E+00	0.00E+00	1.28E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
Acetone	0.00E+00	0.00E+00	2.00E-04	0.00E+00	0.00E+00	0.0000	0.00	NV
4-Methyl-2-Pentanone(	0.00E+00	0.00E+00	2.93E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
2-Methylnaphthalene	0.00E+00	0.00E+00	1.98E-03	0.00E+00	0.00E+00	0.0000	0.00	NV
2-Hexanone	0.00E+00	0.00E+00	4.50E-06	0.00E+00	0.00E+00	0.0000	0.00	NV
Selenium	0.00E+00	0.00E+00	5.01E-03	0.00E+00	0.00E+00	0.0000	0.00	NV
Lead	0.00E+00	0.00E+00	3.44E-01	0.00E+00	0.00E+00	0.0000	0.00	NV

Risk-Based Screening Results

For Qualitative Risk Assessments

Risk-Based Screening Results - Subsurface Soil
SWMUs 2 and 119

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	4.63E+00	1.40E+00	2.51E+00	23.46	0.20	NO
Selenium	5.00E-03	0.00E+00	2.64E+01	6.55E+00	1.20E+01	391.07	0.07	NO
Barium	7.00E-02	0.00E+00	1.25E+02	5.44E+01	7.63E+01	5475.00	0.02	NO
Cadmium (food)	1.00E-03	0.00E+00	5.11E-01	3.01E-01	3.75E-01	78.21	0.01	NO
Mercury	3.00E-04	0.00E+00	2.63E-02	1.97E-03	1.01E-02	23.46	0.00	NO
Chromium	1.00E+00	0.00E+00	2.19E+01	1.08E+01	1.57E+01	78214.29	0.00	NO
Acetone	1.00E-01	0.00E+00	5.78E-01	1.21E-01	2.57E-01	7821.43	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	5.22E-03	3.68E-03	4.58E-03	85.16	0.00	NO
Fluorene	4.00E-02	0.00E+00	8.24E-02	5.94E-02	2.00E-01	3128.57	0.00	NO
Naphthalene	4.00E-02	0.00E+00	4.72E-02	3.79E-02	9.70E-02	3128.57	0.00	NO
Dibutylphthalate	1.00E-01	0.00E+00	1.84E-01	1.24E-01	5.00E-01	7821.43	0.00	NO
Pyrene	3.00E-02	0.00E+00	1.51E-02	8.03E-03	5.30E-01	2346.43	0.00	NO
Acenaphthene	6.00E-02	0.00E+00	4.01E-02	3.02E-02	9.30E-02	4692.86	0.00	NO
Xylene (total)	2.00E+00	0.00E+00	4.56E-02	9.37E-03	1.92E-02	156428.57	0.00	NO
Toluene	2.00E-01	0.00E+00	3.06E-02	5.24E-03	1.21E-02	15642.86	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	1.62E-01	1.12E-01	4.30E-01	0.00	0.00	NV
Methyl ethyl ketone	6.00E-01	0.00E+00	4.66E-02	1.75E-02	2.80E-02	46928.57	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	1.18E-02	6.68E-03	3.90E-02	3128.57	0.00	NO
Ethyl benzene	1.00E-01	0.00E+00	1.26E-02	4.72E-03	6.97E-03	7821.43	0.00	NO
Dibenzofuran	0.00E+00	0.00E+00	9.01E-02	6.26E-02	2.40E-01	0.00	0.00	NV
2-Methylnaphthalene	0.00E+00	0.00E+00	5.03E-01	4.64E-01	7.10E-01	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMUs 15 and 120

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	3.65E+00	1.94E+00	3.32E+00	23.46	0.16	NO
Barium	7.00E-02	0.00E+00	6.93E+01	5.21E+01	6.64E+01	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	2.95E+00	2.11E+00	2.99E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	1.07E-01	5.42E-02	1.26E-01	78.21	0.00	NO
Chromium	1.00E+00	0.00E+00	9.08E+00	7.28E+00	8.99E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	3.71E-03	2.88E-03	4.04E-03	85.16	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	3.60E+01	2.52E+01	4.39E+01	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	7.37E+00	4.35E+00	7.16E+00	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMUs 17 and 121

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	1.97E+00	9.30E-01	1.46E+00	23.46	0.08	NO
Selenium	5.00E-03	0.00E+00	3.20E+00	2.57E+00	2.97E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	9.35E-02	1.25E-02	6.14E-02	78.21	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	1.24E-02	5.12E-03	8.44E-03	85.16	0.00	NO
Chromium	1.00E+00	0.00E+00	5.82E+00	5.16E+00	5.93E+00	78214.29	0.00	NO
Acetone	1.00E-01	0.00E+00	3.92E-01	1.40E-01	2.61E-01	7821.43	0.00	NO
Methyl ethyl ketone	6.00E-01	0.00E+00	2.77E-02	7.68E-03	1.58E-02	46928.57	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	3.58E+02	1.01E+02	2.26E+02	0.00	0.00	NV
Carbon disulfide	1.00E-01	0.00E+00	3.79E-03	2.30E-03	3.51E-03	7821.43	0.00	NO
Lead	0.00E+00	0.00E+00	8.36E+01	3.38E+01	6.39E+01	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMUs 36 and 136

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	1.40E+00	9.02E-01	1.07E+00	23.46	0.06	NO
Selenium	5.00E-03	0.00E+00	3.02E+00	1.87E+00	2.64E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	2.03E-01	7.00E-02	1.24E-01	78.21	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	1.68E-02	4.14E-03	7.27E-03	85.16	0.00	NO
Acetone	1.00E-01	0.00E+00	9.65E-01	2.27E-01	4.37E-01	7821.43	0.00	NO
Chromium	1.00E+00	0.00E+00	8.17E+00	6.15E+00	6.93E+00	78214.29	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	5.03E+03	5.75E+02	1.61E+03	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	1.36E+01	3.95E+00	6.26E+00	0.00	0.00	NV

Risk-Based Screening . ..lts - Subsurface Soil
SWMUs 32 and 125

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Benzo(a)pyrene	0.00E+00	7.30E+00	7.80E-02	2.85E-02	4.90E-02	0.09	0.89	NO
Arsenic	3.00E-04	0.00E+00	7.18E+00	4.94E+00	5.87E+00	23.46	0.31	NO
Benzo(b)fluoranthene	0.00E+00	1.22E+00	1.47E-01	9.50E-02	1.20E-01	0.52	0.28	NO
Benzo(a)anthracene	0.00E+00	1.06E+00	4.44E-02	2.12E-02	3.30E-02	0.60	0.07	NO
Benzo(k)fluoranthene	0.00E+00	1.46E-01	1.47E-01	9.69E-02	1.20E-01	4.37	0.03	NO
Indeno(1,2,3-cd)pyrene	0.00E+00	4.01E-01	2.70E-02	1.93E-02	2.50E-02	1.59	0.02	NO
Cadmium (food)	1.00E-03	0.00E+00	8.69E-01	4.53E-01	6.07E-01	78.21	0.01	NO
Selenium	5.00E-03	0.00E+00	2.06E+00	1.67E+00	1.94E+00	391.07	0.01	NO
Chrysene	0.00E+00	3.21E-02	6.14E-02	2.29E-02	4.00E-02	19.90	0.00	NO
Chromium	1.00E+00	0.00E+00	9.12E+00	7.19E+00	8.39E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	8.89E-03	4.18E-03	6.05E-03	85.16	0.00	NO
Pyrene	3.00E-02	0.00E+00	9.48E-02	3.30E-02	5.70E-02	2346.43	0.00	NO
Benzene	0.00E+00	2.90E-02	9.72E-04	4.67E-04	6.90E-04	22.03	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	5.93E-02	2.36E-02	4.10E-02	3128.57	0.00	NO
Trichloroethene	0.00E+00	1.10E-02	8.44E-04	6.20E-04	7.40E-04	58.07	0.00	NO
Acetone	1.00E-01	0.00E+00	7.59E-02	2.65E-02	4.66E-02	7821.43	0.00	NO
Toluene	2.00E-01	0.00E+00	9.58E-04	3.49E-04	5.80E-04	15642.86	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	3.28E-02	1.23E-02	2.00E-02	0.00	0.00	NV
Hydrocarbons	0.00E+00	0.00E+00	7.34E+02	3.36E+02	5.44E+02	0.00	0.00	NV
Ethyl benzene	1.00E-01	0.00E+00	3.35E-04	1.93E-04	2.60E-04	7821.43	0.00	NO
Carbon disulfide	1.00E-01	0.00E+00	3.66E-03	1.15E-03	1.87E-03	7821.43	0.00	NO
Benzo(g,h,i)perylene	0.00E+00	0.00E+00	3.17E-02	1.95E-02	2.80E-02	0.00	0.00	NV
Anthracene	3.00E-01	0.00E+00	1.25E-02	8.46E-03	1.00E-02	23464.29	0.00	NO
4-Methyl-2-Pentanone(MIBK	5.00E-02	0.00E+00	5.42E-03	3.25E-03	4.15E-03	3910.71	0.00	NO
2-Methylnaphthalene	0.00E+00	0.00E+00	1.60E-02	8.71E-03	1.20E-02	0.00	0.00	NV
2-Hexanone	0.00E+00	0.00E+00	7.14E-03	5.20E-03	6.47E-03	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	1.16E+02	2.74E+01	5.48E+01	0.00	0.00	NV

Risk-Based Screening Results•Surface Soil
SWMU 40/128/138

emical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
rsenic	3.00E-04	1.75E+00	5.72E+00	4.69E+00	1.12E+01	3.65E-01	1.57E+01	YES
ndeno(1,2,3-cd)pyrene	0.00E+00	7.30E-01	3.38E-01	1.78E-01	1.19E+00	8.75E-01	3.86E-01	NO
admium (food)	1.00E-03	0.00E+00	2.79E+01	1.60E+01	9.12E+01	7.82E+01	3.57E-01	NO
arium	7.00E-02	0.00E+00	3.06E+02	2.20E+02	7.63E+02	5.48E+03	5.59E-02	NO
ercury	3.00E-04	0.00E+00	7.79E-01	3.68E-01	2.96E+00	2.35E+01	3.32E-02	NO
elenium	5.00E-03	0.00E+00	3.31E+00	2.87E+00	5.67E+00	3.91E+02	8.46E-03	NO
is(2-Ethylhexyl)phthalate	2.00E-02	1.40E-02	3.41E+00	1.96E+00	1.11E+01	1.56E+03	2.18E-03	NO
nromium	1.00E+00	0.00E+00	9.36E+01	5.43E+01	3.02E+02	7.82E+04	1.20E-03	NO
cetone	1.00E-01	0.00E+00	9.21E+00	6.05E+00	2.60E+01	7.82E+03	1.18E-03	NO
ethylene Chloride	6.00E-02	7.50E-03	2.58E-03	1.64E-03	7.60E-03	8.52E+01	3.00E-05	NO
yrene	3.00E-02	0.00E+00	1.06E-02	7.85E-03	2.52E-02	2.35E+03	0.00E+00	NO
ydrocarbons	0.00E+00	0.00E+00	1.34E+04	6.85E+03	4.82E+04	0.00E+00	0.00E+00	NV
luoranthene	4.00E-02	0.00E+00	7.82E-03	6.96E-03	1.24E-02	3.13E+03	0.00E+00	NO
enzo(g,h,i)perylene	0.00E+00	0.00E+00	6.56E-01	6.39E-01	7.44E-01	0.00E+00	0.00E+00	NV
ead	0.00E+00	0.00E+00	3.27E+02	1.81E+02	1.11E+03	0.00E+00	0.00E+00	NV

Risk-Based Screening Results•Subsurface Soil
SWMU 40/128/138

emical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
rsenic	3.00E-04	1.75E+00	2.76E+00	1.53E+00	2.11E+00	3.65E-01	7.56E+00	YES
arium	7.00E-02	0.00E+00	8.22E+01	4.77E+01	6.35E+01	5.48E+03	1.50E-02	NO
elenium	5.00E-03	0.00E+00	4.57E+00	2.95E+00	3.86E+00	3.91E+02	1.17E-02	NO
admium (food)	1.00E-03	0.00E+00	3.20E-01	7.98E-02	1.78E-01	7.82E+01	4.09E-03	NO
ercury	3.00E-04	0.00E+00	2.59E-02	-8.83E-03	6.51E-03	2.35E+01	1.10E-03	NO
ethylene Chloride	6.00E-02	7.50E-03	2.26E-02	6.75E-03	1.18E-02	8.52E+01	2.70E-04	NO
hloromethane	0.00E+00	1.30E-02	8.51E-03	6.64E-03	7.99E-03	4.91E+01	1.70E-04	NO
cetone	1.00E-01	0.00E+00	9.83E-01	2.26E-01	4.54E-01	7.82E+03	1.30E-04	NO
hromium	1.00E+00	0.00E+00	8.87E+00	5.92E+00	7.62E+00	7.82E+04	1.10E-04	NO

Risk-Based Screening Results - Surface Soil
SWMU 56

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Selenium	5.00E-03	0.00E+00	3.54E+00	1.66E+00	1.66E+00	391.07	0.01	NO
Barium	7.00E-02	0.00E+00	4.77E+01	4.68E+01	1.53E+00	5475.00	0.01	NO
Arsenic	3.00E-04	0.00E+00	1.56E-01	-1.06E+00	1.71E+00	23.46	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	2.67E-01	1.81E-01	1.48E-01	78.21	0.00	NO
Chromium	1.00E+00	0.00E+00	1.38E+01	1.13E+01	2.22E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	1.25E-02	7.61E-03	5.77E-03	85.16	0.00	NO
Acetone	1.00E-01	0.00E+00	7.59E-02	5.48E-02	3.09E-02	7821.43	0.00	NO
Toluene	2.00E-01	0.00E+00	1.06E-03	6.21E-04	3.90E-04	15642.86	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	4.64E+02	3.01E+02	1.81E+02	0.00	0.00	NV
Ethyl benzene	1.00E-01	0.00E+00	2.18E-03	1.48E-03	1.19E-03	7821.43	0.00	NO
Carbon disulfide	1.00E-01	0.00E+00	3.99E-03	2.27E-03	1.51E-03	7821.43	0.00	NO
1,1,1-Trichloroethane	9.00E-02	0.00E+00	1.46E-02	1.09E-02	5.10E-03	7039.29	0.00	NO
Lead	0.00E+00	0.00E+00	8.16E+00	5.83E+00	2.08E+00	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 56

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	1.01E+00	7.69E-01	1.30E+00	23.46	0.04	NO
Barium	7.00E-02	0.00E+00	8.46E+01	5.10E+01	1.03E+02	5475.00	0.02	NO
Selenium	5.00E-03	0.00E+00	2.34E+00	1.39E+00	2.85E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	2.26E-01	1.28E-01	3.69E-01	78.21	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	3.49E-02	1.46E-02	3.13E-02	85.16	0.00	NO
Benzene	0.00E+00	2.90E-02	6.13E-03	2.86E-03	5.43E-03	22.03	0.00	NO
Chromium	1.00E+00	0.00E+00	1.44E+01	8.95E+00	1.72E+01	78214.29	0.00	NO
1,1,1-Trichloroethane	9.00E-02	0.00E+00	9.53E-01	6.46E-01	1.03E+00	7039.29	0.00	NO
Acetone	1.00E-01	0.00E+00	7.33E-01	2.31E-01	6.29E-01	7821.43	0.00	NO
Ethyl benzene	1.00E-01	0.00E+00	2.60E-01	1.15E-01	2.54E-01	7821.43	0.00	NO
Xylene (total)	2.00E+00	0.00E+00	9.92E-01	6.45E-01	9.77E-01	156428.57	0.00	NO
Toluene	2.00E-01	0.00E+00	1.56E-01	9.05E-02	1.68E-01	15642.86	0.00	NO
1,1-Dichloroethane	1.00E-01	0.00E+00	6.72E-02	3.13E-02	6.87E-02	7821.43	0.00	NO
Methyl ethyl ketone	6.00E-01	0.00E+00	4.59E-02	1.53E-02	3.94E-02	46928.57	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	4.08E+02	1.43E+02	5.30E+02	0.00	0.00	NV
Carbon disulfide	1.00E-01	0.00E+00	5.39E-03	2.96E-03	4.96E-03	7821.43	0.00	NO
Lead	0.00E+00	0.00E+00	6.10E+00	3.77E+00	7.92E+00	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 63

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	4.09E+00	3.61E+00	4.06E+00	23.46	0.17	NO
Selenium	5.00E-03	0.00E+00	2.44E+00	2.08E+00	2.29E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	3.40E-01	1.86E-01	2.73E-01	78.21	0.00	NO
Chrysene	0.00E+00	3.21E-02	3.34E-02	1.50E-02	2.70E-02	19.90	0.00	NO
Methanol	5.00E-01	0.00E+00	1.03E+01	7.55E+00	1.04E+01	39107.14	0.00	NO
Chromium	1.00E+00	0.00E+00	7.10E+00	4.97E+00	6.44E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	4.05E-03	3.08E-03	4.14E-03	85.16	0.00	NO
Pyrene	3.00E-02	0.00E+00	3.13E-02	1.66E-02	2.60E-02	2346.43	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	2.60E-02	1.48E-02	2.60E-02	3128.57	0.00	NO
Lead	0.00E+00	0.00E+00	1.67E+01	8.42E+00	1.45E+01	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 63

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	4.36E+00	4.36E+00	0.00E+00	23.46	0.19	NO
Barium	7.00E-02	0.00E+00	5.53E+01	5.53E+01	0.00E+00	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	7.59E-01	7.59E-01	0.00E+00	391.07	0.00	NO
Cadmium (food)	1.00E-03	0.00E+00	4.95E-02	4.95E-02	0.00E+00	78.21	0.00	NO
Chromium	1.00E+00	0.00E+00	8.75E+00	8.75E+00	0.00E+00	78214.29	0.00	NO
Lead	0.00E+00	0.00E+00	5.13E+00	5.13E+00	0.00E+00	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 71

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	1.04E+01	5.07E+00	9.52E+00	23.46	0.44	NO
Selenium	5.00E-03	0.00E+00	3.75E+00	3.23E+00	3.59E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	1.77E-01	6.42E-02	1.64E-01	78.21	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	5.13E-03	3.52E-03	5.02E-03	85.16	0.00	NO
Chromium	1.00E+00	0.00E+00	4.97E+00	3.74E+00	4.41E+00	78214.29	0.00	NO
Ethanol	0.00E+00	0.00E+00	2.12E+00	1.86E+00	2.08E+00	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	4.24E+01	2.74E+01	4.23E+01	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 71

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	4.43E-01	2.23E-01	3.11E-01	23.46	0.02	NO
Barium	7.00E-02	0.00E+00	4.17E+01	3.78E+01	5.59E+00	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	2.51E+00	2.30E+00	2.97E-01	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	1.60E-01	9.33E-02	9.43E-02	78.21	0.00	NO
Chromium	1.00E+00	0.00E+00	9.60E+00	6.93E+00	3.78E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	5.54E-03	2.93E-03	3.69E-03	85.16	0.00	NO
Ethanol	0.00E+00	0.00E+00	2.46E+00	2.33E+00	1.91E-01	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	2.51E+01	1.33E+01	1.67E+01	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 78

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	4.90E+00	4.10E+00	4.78E+00	23.46	0.21	NO
Barium	7.00E-02	0.00E+00	6.77E+01	4.70E+01	6.53E+01	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	2.96E+00	1.59E+00	3.25E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	3.35E-01	2.28E-01	3.52E-01	78.21	0.00	NO
Chromium	1.00E+00	0.00E+00	9.34E+00	7.02E+00	9.72E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	4.34E-03	4.02E-03	4.53E-03	85.16	0.00	NO
Acetone	1.00E-01	0.00E+00	7.74E-02	2.59E-02	6.72E-02	7821.43	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	7.17E+01	3.86E+01	6.52E+01	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	1.04E+01	5.71E+00	1.01E+01	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 78

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	4.03E+00	3.62E+00	4.16E+00	23.46	0.17	NO
Selenium	5.00E-03	0.00E+00	3.62E+00	2.50E+00	3.47E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	3.00E-01	1.27E-01	2.82E-01	78.21	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	1.38E-02	5.65E-03	1.22E-02	85.16	0.00	NO
Chromium	1.00E+00	0.00E+00	5.33E+00	4.35E+00	5.37E+00	78214.29	0.00	NO
Acetone	1.00E-01	0.00E+00	5.97E-02	3.08E-02	5.78E-02	7821.43	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	2.28E+01	1.15E+01	2.04E+01	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 91

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	5.16E+00	4.64E+00	7.92E+00	23.46	0.22	NO
Barium	7.00E-02	0.00E+00	1.01E+02	9.50E+01	1.33E+02	5475.00	0.02	NO
Cadmium (food)	1.00E-03	0.00E+00	4.28E-01	4.28E-01	4.31E-01	78.21	0.01	NO
Selenium	5.00E-03	0.00E+00	9.42E-01	6.31E-01	2.60E+00	391.07	0.00	NO
Chromium	1.00E+00	0.00E+00	1.26E+01	1.21E+01	1.53E+01	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	3.59E-03	3.54E-03	3.86E-03	85.16	0.00	NO
Acetone	1.00E-01	0.00E+00	8.75E-02	7.91E-02	1.32E-01	7821.43	0.00	NO
Lead	0.00E+00	0.00E+00	8.01E+00	7.23E+00	1.22E+01	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 124

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Benzo(a)anthracene	0.00E+00	1.06E+00	2.09E-02	2.09E-02	0.00E+00	0.60	0.03	NO
Chrysene	0.00E+00	3.21E-02	2.04E-02	2.04E-02	0.00E+00	19.90	0.00	NO
Trichloroethene	0.00E+00	1.10E-02	5.32E-03	5.32E-03	0.00E+00	58.07	0.00	NO
Toluene	2.00E-01	0.00E+00	7.35E-04	7.35E-04	0.00E+00	15642.86	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	8.40E+02	8.40E+02	0.00E+00	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 136

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	2.19E+00	1.51E+00	5.82E+00	23.46	0.09	NO
Barium	7.00E-02	0.00E+00	1.20E+02	8.18E+01	3.23E+02	5475.00	0.02	NO
Cadmium (food)	1.00E-03	0.00E+00	5.27E-01	2.98E-01	1.74E+00	78.21	0.01	NO
Selenium	5.00E-03	0.00E+00	1.48E+00	1.40E+00	1.91E+00	391.07	0.00	NO
Chromium	1.00E+00	0.00E+00	1.61E+01	1.01E+01	4.78E+01	78214.29	0.00	NO
Acetone	1.00E-01	0.00E+00	8.94E-01	4.53E-01	3.23E+00	7821.43	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	3.57E-03	2.24E-03	1.06E-02	85.16	0.00	NO
Toluene	2.00E-01	0.00E+00	1.07E-03	8.29E-04	2.35E-03	15642.86	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	4.45E+02	3.87E+02	7.53E+02	0.00	0.00	NV
Ethyl benzene	1.00E-01	0.00E+00	4.10E-04	2.81E-04	1.09E-03	7821.43	0.00	NO
1,1,1-Trichloroethane	9.00E-02	0.00E+00	4.75E-03	2.61E-03	1.61E-02	7039.29	0.00	NO
Lead	0.00E+00	0.00E+00	1.76E+01	9.62E+00	6.00E+01	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 136

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
1,1-Dichloroethene	9.00E-03	6.00E-01	4.56E-01	1.88E-01	5.87E-01	1.06	0.43	NO
Arsenic	3.00E-04	0.00E+00	3.48E+00	1.89E+00	3.27E+00	23.46	0.15	NO
Barium	7.00E-02	0.00E+00	9.66E+01	6.80E+01	1.03E+02	5475.00	0.02	NO
Chrysene	0.00E+00	3.21E-02	2.96E-01	2.96E-01	0.00E+00	19.90	0.01	NO
Selenium	5.00E-03	0.00E+00	2.57E+00	1.61E+00	2.81E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	2.02E-01	1.28E-01	2.43E-01	78.21	0.00	NO
Naphthalene	4.00E-02	0.00E+00	4.92E+00	4.92E+00	0.00E+00	3128.57	0.00	NO
Fluorene	4.00E-02	0.00E+00	4.44E+00	4.44E+00	0.00E+00	3128.57	0.00	NO
1,1,1-Trichloroethane	9.00E-02	0.00E+00	6.23E+00	4.89E+00	8.13E+00	7039.29	0.00	NO
Pyrene	3.00E-02	0.00E+00	1.29E+00	1.29E+00	0.00E+00	2346.43	0.00	NO
Acenaphthene	6.00E-02	0.00E+00	2.15E+00	2.15E+00	0.00E+00	4692.86	0.00	NO
Acetone	1.00E-01	0.00E+00	2.36E+00	8.00E-01	3.08E+00	7821.43	0.00	NO
Benzene	0.00E+00	2.90E-02	4.74E-03	3.35E-03	5.77E-03	22.03	0.00	NO
Chromium	1.00E+00	0.00E+00	1.33E+01	7.94E+00	1.28E+01	78214.29	0.00	NO
Ethyl benzene	1.00E-01	0.00E+00	1.27E+00	8.33E-01	1.47E+00	7821.43	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	1.31E-02	9.74E-03	1.63E-02	85.16	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	4.13E-01	4.13E-01	0.00E+00	3128.57	0.00	NO
Xylene (total)	2.00E+00	0.00E+00	9.27E+00	6.03E+00	1.43E+01	156428.57	0.00	NO
Toluene	2.00E-01	0.00E+00	7.00E-01	4.28E-01	8.98E-01	15642.86	0.00	NO
Anthracene	3.00E-01	0.00E+00	1.02E+00	1.02E+00	0.00E+00	23464.29	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	1.18E+01	1.18E+01	0.00E+00	0.00	0.00	NV
Methyl ethyl ketone	6.00E-01	0.00E+00	8.59E-02	4.83E-02	1.10E-01	46928.57	0.00	NO
Hydrocarbons	0.00E+00	0.00E+00	9.36E+03	3.38E+03	8.60E+03	0.00	0.00	NV
Dibenzofuran	0.00E+00	0.00E+00	5.19E+00	5.19E+00	0.00E+00	0.00	0.00	NV
Carbon disulfide	1.00E-01	0.00E+00	2.09E-02	1.30E-02	2.88E-02	7821.43	0.00	NO
2-Methylnaphthalene	0.00E+00	0.00E+00	4.85E+01	4.85E+01	0.00E+00	0.00	0.00	NV
1,1-Dichloroethane	1.00E-01	0.00E+00	3.86E-02	2.07E-02	4.87E-02	7821.43	0.00	NO
Lead	0.00E+00	0.00E+00	9.55E+00	4.41E+00	8.61E+00	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
SWMU 155

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Beryllium	5.00E-03	4.30E+00	2.05E-01	1.65E-01	2.32E-01	0.15	1.38	YES
Arsenic	3.00E-04	0.00E+00	3.76E+00	2.70E+00	4.48E+00	23.46	0.16	NO
MCPA	5.00E-04	0.00E+00	5.10E+00	3.79E+00	5.91E+00	39.11	0.13	NO
Heptachlor epoxide	1.00E-05	9.10E+00	3.64E-03	1.24E-03	4.74E-03	0.07	0.05	NO
Vanadium	7.00E-03	0.00E+00	1.68E+01	1.50E+01	1.79E+01	547.50	0.03	NO
Dieldrin	5.00E-05	1.60E+01	8.88E-04	5.43E-04	1.28E-03	0.04	0.02	NO
Barium	7.00E-02	0.00E+00	6.30E+01	5.14E+01	7.03E+01	5475.00	0.01	NO
Selenium	5.00E-03	0.00E+00	2.61E+00	2.36E+00	3.09E+00	391.07	0.01	NO
Silver	5.00E-03	0.00E+00	1.98E+00	4.03E-01	2.79E+00	391.07	0.01	NO
Methyl parathion	3.00E-04	0.00E+00	1.12E-01	8.45E-02	1.25E-01	23.46	0.00	NO
Cadmium (food)	1.00E-03	0.00E+00	1.63E-01	-3.63E-02	2.55E-01	78.21	0.00	NO
Copper	3.70E-02	0.00E+00	4.58E+00	2.59E+00	5.51E+00	2893.93	0.00	NO
4,4'-DDT	5.00E-04	3.40E-01	1.51E-03	1.14E-03	2.11E-03	1.88	0.00	NO
4,4'-DDD	0.00E+00	2.40E-01	1.43E-03	8.59E-04	1.98E-03	2.66	0.00	NO
4,4'-DDE	0.00E+00	3.40E-01	8.77E-04	4.37E-04	1.16E-03	1.88	0.00	NO
gamma-Chlordane	6.00E-05	1.30E+00	1.95E-04	1.23E-04	2.90E-04	0.49	0.00	NO
Zinc	3.00E-01	0.00E+00	8.95E+00	8.01E+00	1.06E+01	23464.29	0.00	NO
Methyl azinphos	1.60E-04	0.00E+00	2.10E-03	1.16E-03	2.81E-03	12.20	0.00	NO
Chromium	1.00E+00	0.00E+00	6.10E+00	5.46E+00	6.54E+00	78214.29	0.00	NO
Phorate	2.00E-04	0.00E+00	1.03E-03	7.96E-04	1.45E-03	15.64	0.00	NO
Endrin Aldehyde	3.00E-04	0.00E+00	2.35E-04	1.44E-04	2.90E-04	23.46	0.00	NO
Naled	0.00E+00	0.00E+00	9.51E-03	7.34E-03	1.17E-02	0.00	0.00	NV
Endosulfan II	6.00E-03	0.00E+00	2.52E-05	1.25E-05	3.00E-05	469.29	0.00	NO
Dichloroprop	0.00E+00	0.00E+00	2.92E-02	2.38E-02	3.20E-02	0.00	0.00	NV
Carbon disulfide	1.00E-01	0.00E+00	4.69E-03	3.48E-03	6.62E-03	7821.43	0.00	NO
Sulfide	0.00E+00	0.00E+00	3.14E+01	1.13E+00	4.53E+01	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	9.76E+00	4.74E+00	1.21E+01	0.00	0.00	NV
Cobalt	0.00E+00	0.00E+00	1.38E+00	1.20E+00	1.53E+00	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 155

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Beryllium	5.00E-03	4.30E+00	1.93E-01	1.45E-01	2.15E-01	0.15	1.30	YES
Arsenic	3.00E-04	0.00E+00	2.99E+00	1.61E+00	3.65E+00	23.46	0.13	NO
4,4'-DDD	0.00E+00	2.40E-01	2.85E-01	1.67E-01	3.76E-01	2.66	0.11	NO
Heptachlor epoxide	1.00E-05	9.10E+00	6.11E-03	5.45E-03	7.15E-03	0.07	0.09	NO
1,1-Dichloroethene	9.00E-03	6.00E-01	8.98E-02	6.35E-02	1.04E-01	1.06	0.08	NO
Vanadium	7.00E-03	0.00E+00	2.13E+01	1.83E+01	2.41E+01	547.50	0.04	NO
gamma-Chlordane	6.00E-05	1.30E+00	8.62E-03	4.34E-03	1.11E-02	0.49	0.02	NO
Barium	7.00E-02	0.00E+00	6.00E+01	5.31E+01	6.94E+01	5475.00	0.01	NO
Silver	5.00E-03	0.00E+00	3.42E+00	1.31E+00	4.39E+00	391.07	0.01	NO
Selenium	5.00E-03	0.00E+00	2.28E+00	2.11E+00	2.54E+00	391.07	0.01	NO
1,4-Dichlorobenzene	0.00E+00	2.40E-02	9.48E-02	5.59E-02	1.15E+02	26.61	0.00	NO
Chrysene	0.00E+00	3.21E-02	6.51E-02	3.14E-02	8.00E-02	19.90	0.00	NO
Copper	3.70E-02	0.00E+00	5.93E+00	3.73E+00	6.95E+00	2893.93	0.00	NO
Mercury	3.00E-04	0.00E+00	3.57E-02	1.71E-02	6.33E-02	23.46	0.00	NO
Zinc	3.00E-01	0.00E+00	3.14E+01	1.71E+01	3.80E+01	23464.29	0.00	NO
Cadmium (food)	1.00E-03	0.00E+00	9.64E-02	-4.39E-02	1.80E-01	78.21	0.00	NO
Naphthalene	4.00E-02	0.00E+00	1.70E+00	1.45E+00	2.00E+00	3128.57	0.00	NO
Benzene	0.00E+00	2.90E-02	9.34E-03	3.38E-03	1.21E-02	22.03	0.00	NO
Fluorene	4.00E-02	0.00E+00	1.08E+00	6.82E-01	1.50E+00	3128.57	0.00	NO
Ethyl benzene	1.00E-01	0.00E+00	8.78E-01	4.12E-01	1.11E+00	7821.43	0.00	NO
Chromium	1.00E+00	0.00E+00	8.48E+00	6.57E+00	9.41E+00	78214.29	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	5.42E-03	2.59E-03	6.76E-03	85.16	0.00	NO
Acenaphthene	6.00E-02	0.00E+00	2.21E-01	1.62E-01	3.30E-01	4692.86	0.00	NO
Pyrene	3.00E-02	0.00E+00	7.73E-02	5.48E-02	1.00E-02	2346.43	0.00	NO
Fluoranthene	4.00E-02	0.00E+00	6.63E-02	3.32E-02	9.00E-02	3128.57	0.00	NO
Xylene (total)	2.00E+00	0.00E+00	2.09E+00	1.02E+00	2.64E+00	156428.57	0.00	NO
Carbon disulfide	1.00E-01	0.00E+00	5.30E-02	4.75E-02	6.01E-02	7821.43	0.00	NO
Toluene	2.00E-01	0.00E+00	5.08E-02	2.67E-02	6.32E-02	15642.86	0.00	NO
Phenanthrene	0.00E+00	0.00E+00	9.48E-01	7.63E-01	1.10E+00	0.00	0.00	NV
Naled	0.00E+00	0.00E+00	7.78E-03	6.41E-03	8.45E-03	0.00	0.00	NV
Dicamba	3.00E-02	0.00E+00	9.37E-04	6.84E-04	1.07E-03	2346.43	0.00	NO
Anthracene	3.00E-01	0.00E+00	5.37E-02	3.63E-02	6.00E-02	23464.29	0.00	NO
2-Methylnaphthalene	0.00E+00	0.00E+00	1.13E+01	5.88E+00	1.50E+01	0.00	0.00	NV
Sulfide	0.00E+00	0.00E+00	8.01E+01	2.70E+01	1.08E+02	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	8.13E+00	4.72E+00	9.77E+00	0.00	0.00	NV
Cobalt	0.00E+00	0.00E+00	2.08E+00	1.78E+00	2.22E+00	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 156

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Beryllium	5.00E-03	4.30E+00	1.87E+00	5.05E-01	7.69E-01	0.15	12.59	YES
Arsenic	3.00E-04	0.00E+00	6.26E+00	2.40E+00	3.55E+00	23.46	0.27	NO
Thallium	5.00E-05	0.00E+00	7.62E-01	2.81E-01	3.92E-01	3.91	0.19	NO
4,4'-DDD	0.00E+00	2.40E-01	1.83E-01	2.07E-02	5.04E-02	2.66	0.07	NO
Vanadium	7.00E-03	0.00E+00	2.57E+01	1.86E+01	2.11E+01	547.50	0.05	NO
gamma-Chlordane	6.00E-05	1.30E+00	1.52E-02	2.50E-03	5.53E-03	0.49	0.03	NO
4,4'-DDT	5.00E-04	3.40E-01	4.49E-02	4.17E-03	1.16E-02	1.88	0.02	NO
alpha-Chlordane	6.00E-05	1.30E+00	1.01E-02	3.78E-03	5.23E-03	0.49	0.02	NO
Aldrin	3.00E-05	1.70E+01	6.67E-04	2.98E-04	4.10E-04	0.04	0.02	NO
Barium	7.00E-02	0.00E+00	8.67E+01	5.06E+01	6.15E+01	5475.00	0.02	NO
4,4'-DDE	0.00E+00	3.40E-01	2.76E-02	5.26E-03	1.06E-02	1.88	0.01	NO
Heptachlor epoxide	1.00E-05	9.10E+00	6.33E-04	1.22E-04	2.30E-04	0.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	7.00E-01	2.28E-01	3.51E-01	78.21	0.01	NO
Selenium	5.00E-03	0.00E+00	2.81E+00	1.04E+00	1.85E+00	391.07	0.01	NO
Fensulfothion	5.00E-05	0.00E+00	2.63E-02	5.42E-03	9.41E-03	3.82	0.01	NO
Copper	3.70E-02	0.00E+00	8.07E+00	4.85E+00	5.84E+00	2893.93	0.00	NO
Zinc	3.00E-01	0.00E+00	4.95E+01	2.29E+01	2.94E+01	23464.29	0.00	NO
Mercury	3.00E-04	0.00E+00	4.94E-02	-7.04E-03	9.29E-03	23.46	0.00	NO
Methyl parathion	3.00E-04	0.00E+00	3.77E-02	5.84E-03	1.17E-02	23.46	0.00	NO
Methyl azinphos	1.60E-04	0.00E+00	4.03E-03	2.32E-03	3.01E-03	12.20	0.00	NO
Chromium	1.00E+00	0.00E+00	1.76E+01	1.05E+01	1.29E+01	78214.29	0.00	NO
Endrin Aldehyde	3.00E-04	0.00E+00	2.95E-03	4.55E-04	9.10E-04	23.46	0.00	NO
Dinoseb	1.00E-03	0.00E+00	8.29E-03	5.86E-03	7.27E-03	78.21	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	4.58E-03	1.62E-03	2.32E-03	85.16	0.00	NO
Heptachlor	5.00E-04	4.50E+00	5.40E-06	2.70E-06	0.00E+00	0.14	0.00	NO
2,4,5-T	1.00E-02	0.00E+00	1.33E-02	5.36E-03	7.32E-03	782.14	0.00	NO
Endrin	3.00E-04	0.00E+00	3.42E-04	1.95E-04	2.70E-04	23.46	0.00	NO
trans-1,2-Dichloroethene	2.00E-02	0.00E+00	5.53E-03	3.06E-03	4.22E-03	1564.29	0.00	NO
delta-BHC	0.00E+00	0.00E+00	6.22E-03	1.06E-03	2.01E-03	0.00	0.00	NV
Phenanthrene	0.00E+00	0.00E+00	3.03E-02	1.02E-02	2.00E-02	0.00	0.00	NV
Naled	0.00E+00	0.00E+00	6.12E-02	1.90E-02	3.10E-02	0.00	0.00	NV
Ethoprop	0.00E+00	0.00E+00	2.66E-02	9.44E-03	1.48E-02	0.00	0.00	NV
Ethanol	0.00E+00	0.00E+00	2.10E+00	1.33E+00	1.71E+00	0.00	0.00	NV
Dichloroprop	0.00E+00	0.00E+00	9.92E-02	3.04E-02	4.58E-02	0.00	0.00	NV
Dibenzofuran	0.00E+00	0.00E+00	1.67E-02	8.34E-03	1.00E-02	0.00	0.00	NV

Risk-Based Screening Results - Subsurface Soil
SWMU 156

(continued)

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Carbon disulfide	1.00E-01	0.00E+00	1.94E-02	1.04E-02	1.44E-02	7821.43	0.00	NO
2-Methylnaphthalene	0.00E+00	0.00E+00	4.70E-02	3.37E-02	4.10E-02	0.00	0.00	NV
Sulfide	0.00E+00	0.00E+00	2.90E+01	8.73E-01	1.11E+01	0.00	0.00	NV
Lead	0.00E+00	0.00E+00	1.48E+01	6.69E+00	8.76E+00	0.00	0.00	NV
Cobalt	0.00E+00	0.00E+00	4.04E+00	2.55E+00	3.03E+00	0.00	0.00	NV

Risk-Based Screening Results - Surface Soil
AOC-U

Chemical Name	Oral RfD (mg/kg/day)	Oral Slope Factor (mg/kg/day)-1	Maximum Detection (mg/kg)	Mean (mg/kg)	UCL (mg/kg)	Region III Screening Level (mg/kg)	Regulatory Ratio	Surpasses Criteria
Arsenic	3.00E-04	0.00E+00	7.36E+00	2.14E+00	3.62E+00	23.46	0.31	NO
Barium	7.00E-02	0.00E+00	1.49E+02	6.36E+01	8.42E+01	5475.00	0.03	NO
Selenium	5.00E-03	0.00E+00	5.08E+00	2.93E+00	3.56E+00	391.07	0.01	NO
Cadmium (food)	1.00E-03	0.00E+00	4.31E-01	1.23E-01	2.12E-01	78.21	0.01	NO
Mercury	3.00E-04	0.00E+00	4.86E-02	-1.23E-02	5.96E-03	23.46	0.00	NO
Acetone	1.00E-01	0.00E+00	3.34E+00	5.10E-01	1.20E+00	7821.43	0.00	NO
Chromium	1.00E+00	0.00E+00	2.86E+01	1.09E+01	1.52E+01	78214.29	0.00	NO
Trichloroethene	0.00E+00	1.10E-02	8.50E-03	4.08E-03	5.96E-03	58.07	0.00	NO
Methylene Chloride	6.00E-02	7.50E-03	6.00E-03	4.03E-03	5.38E-03	85.16	0.00	NO
Carbon disulfide	1.00E-01	0.00E+00	2.54E-02	1.36E-02	1.76E-02	7821.43	0.00	NO

[This page intentionally left blank.]

PHASE I RCRA FACILITY INVESTIGATION REPORT

TABLE 2 SOLID WASTE MANAGEMENT UNITS

VOLUME III

Prepared for:

49 CES/CEV
Holloman Air Force Base, NM

Prepared by:

Radian Corporation
8501 N. Mopac Blvd.
Austin, TX 78759

Under Contract No. DACA45-93-D-0027
with
U.S. Army Corps of Engineers
Omaha District
Omaha, Nebraska

September 1997

APPENDIX D

Field Data

D.1 Drilling Logs

D.2 Well Construction Diagrams

D.3 Well Development Logs and Photos

D.4 Groundwater Sampling Logs

D.5 Surveying Data

D.1

Drilling Logs

Key to Borehole Drilling Logs

All boreholes were drilled by Southwest Engineering Inc. (SEI) using a CME hollow-stem auger drill rig. Augers were 4-inch I.D./8-inch O.D., and samples were taken with 2 foot stainless steel split spoons. All boreholes were started and completed on the date listed at the top of the drilling log. The borehole location and borehole elevation are listed in the surveying data (Appendix D.5).

DRILLING LOG

HOLE NO.	002-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671947.97; Northing=554687.31
9. SURFACE ELEVATION	
10. DATE STARTED	11/2/93
11. DATE COMPLETED	11/2/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	9.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.5 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): yellowish red (5YR 5/6), fine grained, moist, nonplastic, loose.	0.0	0.0	5/2/2/1	
	2			0.0	0.0	4/3/3/3	
	4			46.1	139.2	1/2/1/1	
	6					2/1/2/1	
	8		LEAN CLAY (CL): yellowish red (5YR 4/6), with caliche inclusions, moist, medium plasticity, firm.	9.5	22.3	3/7/15/23	002-B01-01-01
▼			Water table at 9.5 ft.	8.4	50.0	6/31/50	002-B01-02-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 002-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			LEAN CLAY (CL) as above.				
			POORLY GRADED SAND (SP): reddish yellow (5YR 6/8), fine grained, saturated, nonplastic, meduim loose to dense.	8.4	50.0	6/31/50	002-B01-02-01
			Total Depth = 11.5 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 002-B01

DRILLING LOG

HOLE NO.	002-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671940.03; Northing=554682.42
9. SURFACE ELEVATION	
10. DATE STARTED	11/2/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	9.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	12.0 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): reddish yellow (7.5YR 6/6), moist, nonplastic, loose.	0.0	0.0	2/3/2/3	
	2			0.0	1.0	2/2/2/2	
	4		SANDY SILT (ML): reddish yellow, (7.5YR 6/6), with fine grained sand and trace clay, moist, nonplastic, soft.	0.0	0.0	1/1/1/1	
	6		SILTY SAND (SM): reddish yellow, (7.5YR 6/6), fine grained, with trace clay, moist, nonplastic, loose.	0.0	0.0	2/5/8/10	
			SILT (ML): reddish yellow (7.5YR 6/6), with trace clay and fine gypsum crystals, moist, low plasticity, firm.				
	8		LEAN CLAY (CL): reddish brown (5YR 4/4), with fine gypsum crystals, moist, medium plasticity, firm.	0.0	1.8	5/5/9/12	002-B02-01-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 002-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			LEAN CLAY (CL) as above.				
			POORLY GRADED SAND (SP): pale brown (5YR 7/3), fine grained, moist, nonplastic, loose.	0.0	1.2	7/9/12/17	002-B02-02-01
	12		Total Depth = 12.0 ft.				
	14						
	16						
	18						
	20						
	22						
	24						
	26						

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 002-B02

DRILLING LOG

HOLE NO.	015-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671780.57; Northing=553042.95
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	5.1 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	8.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
E418.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Matthew Pannett

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): strong brown (7.5YR 5/4), fine to medium grained, with fine gravel, dry, nonplastic, loose.	0.0	0.0	3/4/3/3	
	2		SILTY SAND (SM): strong brown (7.5YR 6/6), fine grained, damp, nonplastic, loose.	0.0	0.0	1/14/5/6	015-B01-01-01
	4		SANDY SILT (ML): yellow (10YR 7/8), with very fine grained sand, moist, nonplastic, loose.				
▼			Water table at 5.1 ft.	0.0	0.0	5/13/5/5	
			SILTY SAND (SM): reddish yellow (7.5YR 7/8), very fine grained, saturated, low plasticity, dense.				
	6		POORLY GRADED SAND (SP): reddish yellow (7.5YR 6/6), medium grained, saturated, nonplastic, loose.	0.0	0.0	3/3/4/4	015-B01-02-01
	8		Total Depth = 8.0 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	015-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 1 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671780.57; Northing=553047.37
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	5.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	8.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; E418.1; Metals
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Matthew Pannett

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP), dark yellowish brown (10YR 4/4), medium grained, with fine gravel, dry, nonplastic, loose.	0.0	0.0	9/6/3/2	
	2		SILTY SAND (SM): strong brown (7.5YR 5/8), fine grained, with caliche inclusions, moist, nonplastic, loose. No caliche inclusions	0.0	0.0	2/16/3/4	015-B02-01-01
	4		Wet	0.0	4.0	3/3/4/4	
			Water table at 5.5 ft.				
	6		SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, saturated, nonplastic, medium dense.	1.0	6.0	9/9/9/12	015-B02-02-01
	8		Total Depth = 8.0 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	017-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669337.80; Northing=549814.38
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.1 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	10.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
Metals	
SW8080	
SW8270	
E418.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): strong brown, (7.5YR 4/6), fine grained, with trace clay, moist, nonplastic, medium lo8ose.	1.2	10.4	7/4/4/3	
	2		SILT (ML): strong brown, (7.5YR 4/6), slightly clayey, moist, nonplastic, soft.	0.0	0.0	4/6/4/4	
	4		Water table at 4.1 ft. Reddish yellow (7.5YR 6/6), with fine gypsum crystals, and caliche inclusions, wet, low plasticity, soft.	0.0	0.0	4/14/23/18	017-B01-01-01
	6		SILTY SAND (SM): reddish yellow (7.5YR 6/6), fine grained, wet, nonplastic, medium dense. Black staining from 7 to 9.6 ft., no petroleum odor.	1.9	2.0	8/8/9/14	017-B01-02-01
	8		Total Depth = 10.0 ft.	2.2	2.0	10/12/29/30	017-B01-03-01

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 017-B01

DRILLING LOG

HOLE NO.	017-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669324.38; Northing=549805.00
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	10.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240 / Metals
	SW8270 / E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, dry, nonplastic, loose.	0.8	1.0	4/1/1/1	
	2			1.2	1.0	1/2/1/2	
▼	4		Encountered metal object at 4.0 ft., a metal pipe and a void space extending down approximately 6 ft. were observed after auger removal. Offset boring 1.0 ft. north. Water table at 4.0 ft. SILT (ML): reddish yellow (7.5YR 6/6), fine grained, with fine gypsum crystals, wet, low plasticity, soft.	0.8	1.5	7/12/4/4	017-B02-01-01
	6		SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, strong black staining, strong petroleum odor, wet, nonplastic.	29.0	53.0	1/1/3/5	017-B02-02-01
	8			0.0	1.9	13/26/33/30	017-B02-03-01
			Total Depth = 10.0 ft.				

DRILLING LOG

HOLE NO.	032-B01
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=670429.12; Northing=543519.77
9. SURFACE ELEVATION	
10. DATE STARTED	11/7/93
11. DATE COMPLETED	11/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	8 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No (DISTURBED / UNDISTURBED)
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes: SW8240, Metals; SW8270, E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL: ; OTHERS (SPECIFY):
23. SIGNATURE OF INSPECTOR	Matthew Pannett

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			WELL GRADED SAND (SW): yellowish red (5YR 4/6), medium grained, with fine gravel, dry, nonplastic, loose.	0.0	4.3	4/4	
	2		SILTY SAND (SM): yellowish red (5YR 5/8), fine grained, dry, nonplastic, medium dense.	0.0	1.0	3/5/6/6	
	4		POORLY GRADED SAND (SP): strong brown (7.5YR 5/6), fine grained, with fine gravel, dry, nonplastic, medium dense.	23.8	48.2	2/3/4/6	
			SILTY SAND (SM): light reddish grey (7.5YR 7/1), very fine grained, damp, nonplastic, medium dense.				
	6		WELL GRADED SAND (SW): pink (5YR 8/4), fine grained, with fine gravel and silt, damp, nonplastic, medium dense, with gray staining, moderate [redacted] or.	0.0	0.9	4/4/6/9	032-B01-01-01
			SILTY SAND (SM): pink (5YR 8/4), medium grained, moist, nonplastic, loose.				
▼	8		SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, moist to saturated, nonplastic, very dense. Water table at 8.0 ft.	0.0	4.2	7/13/15/26	032-B01-02-01
			SILTY SAND (SM): light greenish grey (50Y 7/1), very fine grained, with gypsum crystals, medium plasticity, dense.	0.0	0.0	12/25/50+	032-B01-03-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 032-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Matthew Pannett

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	12/25/50+	032-B01-03-01
			Total Depth = 11.0 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 032-B01

DRILLING LOG

HOLE NO.	032-B02
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=670432.56; Northing=543526.37
9. SURFACE ELEVATION	
10. DATE STARTED	11/7/93
11. DATE COMPLETED	11/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	8.8 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes; DISTURBED: X; UNDISTURBED:
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8240, Metals; SW8270, E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL: ; OTHERS (SPECIFY):
23. SIGNATURE OF INSPECTOR	Matthew Pannett

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			WELL GRADED SAND (SW): yellowish red (5YR 5/8), with fine gravel, dry, nonplastic, loose.	0.0	5.6	4/6	
	2		SILTY SAND (SM): brown (7.5YR 4/4), fine grained, moist, nonplastic, medium dense.	0.0	16.3	3/4/9/6	032-B02-01-01
	4			0.0	0.0	3/5/10/11	
			POORLY GRADED SAND (SP): dark brown (7.5YR 3/3), fine grained, with fine gravel, moist, nonplastic, loose.				
	6		[redacted]	0.0	0.0	6/9/6/3	032-B02-02-01
	8		SILTY SAND (SM): very pale brown (10YR 8/2), fine grained, moist, low plasticity, medium dense. Reddish yellow (5YR 7/8)	0.0	0.0	8/16/12/20	
▼			Water table at 8.8 ft.				
			Light greenish grey (56Y 7/1), very fine gypsum crystals.	0.0	0.0	15/31/50+	032-B02-03-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 032-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Matthew Pannett

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	15/31/50+	032-B02-03-01
			Total Depth = 11.0 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 032-B02

DRILLING LOG

HOLE NO.	036-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676915.88; Northing=549084.65
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No; DISTURBED: ; UNDISTURBED:
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8240; E418.1; Metals
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL: ; OTHERS (SPECIFY):
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silt, very pale brown (10YR 7/4), with fine gravel, dry, nonplastic, very loose.	0.0	0.0	2/2	
	2	Fill		0.0	0.0	0/0/2/2	
	4	Fill		10.0	230.0	1/1/1/1	
		Fill					
	6		POORLY GRADED SAND (SP): reddish yellow (5YR 6/6), fine grained, moist, nonplastic, medium dense. Encountered base of oil/water separator at 6.0 ft. Offset boring 0.5 ft. east, advanced auger to 6.0 ft. and continued sampling.	0.0	0.0	4/6/7/7	036-B01-01-01
	8			0.0	0.0	10/17/35/22	
				0.0	22.5	19/27/32/33	036-B01-02-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 036-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.	0.0	22.5	19/27/32/33	036-B01-02-01
			Total Depth = 11.0 ft.				

10, 12, 14, 16, 18, 20, 22, 24, 26, 28

PROJECT: Table 2 - RFI

HOLE NO.: 036-B01

DRILLING LOG

HOLE NO.	036-B02
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676918.66; Northing=549072.90
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	12.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No; DISTURBED; UNDISTURBED
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8240, E418.1, Metals
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL; OTHERS (SPECIFY)
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silt, very pale brown (10YR 7/4), with fine gravel, dry, nonplastic, very loose.	65.0	0.0	2/3	
	2	Fill	POORLY GRADED SAND (SP): reddish yellow (5YR 6/6), fine grained, with caliche inclusions, moist, nonplastic, very loose to dense.	0.0	0.0	1/2/2/1	
	4			180.0	200.0	1/1/1/1	
			Black staining from 5.0 ft. to 7.0 ft.				
	6			0.0	0.0	5/7/6/6	036-B02-01-01
	8			0.0	0.0	11/13/27/23	
			With caliche layers (.25 in. thick).				
				0.0	0.0	19/21/23/31	036-B02-02-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 036-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.	0.0	0.0	19/21/23/31	036-B02-02-01
			Total Depth = 11.0 ft.				

10, 12, 14, 16, 18, 20, 22, 24, 26, 28

PROJECT: Table 2 - RFI

HOLE NO.: 036-B02

DRILLING LOG

HOLE NO.	039-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676346.79; Northing=553525.21
9. SURFACE ELEVATION	
10. DATE STARTED	11/15/93
11. DATE COMPLETED	11/15/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	20 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	20.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (5YR 6/6), fine grained, dry, nonplastic, medium dense.	0.0	9.7	1/1/5/7	
	2			0.0	42.0	2/2/17/25	
	4		POORLY GRADED SAND (SP): brownish yellow (7.5YR6/4), fine grained, moist, nonplastic, dense.	0.0	5100.0	15/29/33/44	
	6		SILTY SAND (SM): pale olive (5Y 6/4), fine grained, with fine gypsum crystals, moist, nonplastic, very dense. Strong black banded staining at 6.0 ft., moderate petroleum odor.		>9000	7/11/27/33	039-B01-01-01
	8		CLAYEY SAND (SC): pale olive (5Y 6/4), with fine gypsum crystals, slight black staining and moderate petroleum odor, moist, low plasticity, hard.		>9000	14/21/21/27	039-B01-02-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 039-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.		>9000	7/17/37/50+	
	12		SILTY SAND (SM): dark gray (7.5YR 3/1), fine grained, with strong petroleum odor, moist, nonplastic, very dense.		>9000	14/22/28/50+	
	14				>9000	15/50+	039-B01-03-01
	16		POORLY GRADED SAND (SP): dark gray (7.5YR 3/1), fine grained, with strong petroleum odor, moist,nonplastic, very dense.		>9000	9/29/27/50+	
	18				>9000	50+	039-B01-04-01
▼	20		Water table at 20.0 ft.				
			Total Depth = 20.0 ft.				
	22						
	24						
	26						

PROJECT: Table 2 - RFI

HOLE NO.: 039-B01

DRILLING LOG

HOLE NO.	039-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676338.36; Northing=553527.37
9. SURFACE ELEVATION	
10. DATE STARTED	11/16/93
11. DATE COMPLETED	11/16/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	20.2 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	24.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes; DISTURBED: X; UNDISTURBED:
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8240, Metals; SW8270, E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL: ; OTHERS (SPECIFY):
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, dry to moist, nonplastic, loose.		1.3	2/5/6/4	
	2				0.0	3/6/9/11	
	4		CLAYEY SAND (SC): dark red (10R 3/6), fine grained, moist, low plasticity, medium dense.		0.0	12/3/6/17	
	6		POORLY GRADED SAND (SP): light brown (7.5YR 6/4), with silt and fine gypsum crystals, moist, nonplastic, very dense.		0.0	40/50+	
	8				0.0	27/27/41/50+	039-B02-01-01

DRILLING LOG

HOLE NO. 039-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.		0.0	18/16/29/23	
	12		CLAYEY SAND (SC): reddish brown (2.5YR 4/4), with fine gypsum crystals and caliche inclusions, moist, low plasticity, dense.				
			SILTY SAND (SM): reddish brown (2.5YR 4/4), fine grained, moist, nonplastic, dense.		0.0	13/17/21/25	
	14						
			POORLY GRADED SAND (SP): brownish yellow (10YR 6/8), fine grained, with slight rust staining, moist, dense.		3.1	12/13/21/24	039-B02-02-01
			SILTY SAND (SM): reddish brown (2.5YR 4/4), fine grained, moist, nonplastic, dense.				
	16						
			POORLY GRADED SAND (SP): pale brown (10YR 7/4), fine grained, moist, nonplastic, medium dense.		132.0	8/9/6/6	
	18						
			SANDY CLAY (CL): light brownish gray (10YR6/2), moist, low plasticity, dense.		549.0	4/6/9/16	039-B02-03-01
			Dark gray staining from 19.8 ft. to 21.8 ft.				
▼	20		Water table at 20.2 ft.				
					596.0	27/50+	039-B02-04-01
			FAT CLAY (CH): light brown (7.5YR 6/4), wet, high plasticity, very hard				
	22						
					580.0	26/50+	
	24		Total Depth = 24.00 ft.				
	26						

10 12 14 16 18 20 22 24 26 28

DRILLING LOG

HOLE NO.	040-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 1 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685638.56; Northing=532217.92
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	6 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes; DISTURBED: X; UNDISTURBED:
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8240, E418.1; Metals
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL: ; OTHERS (SPECIFY):
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM), very pale brown (10YR 7/4), fine grained, moist, nonplastic, loose to meduim dense.	1.2	4.2	4/2/4/3	
	2			3.1	0.7	4/4/4/6	040-B01-01-01
	4			1.2	0.3	3/10/20/15	040-B01-02-01
▼	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	040-B02
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685640.07; Northing=532223.02
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (7.5YR 7/8), fine grained, moist, nonplastic, loose.	2.7	2.0	4/3/3/4	
	2			2.4	2.1	3/5/4/6	040-B02-01-01
	4		SILT (ML): very pale brown (10YR 8/4), with fine grained sand, moist, low plasticity, firm.	1.7	2.3	4/12/20/16	040-B02-02-01
	6		Total Depth = 6.0 ft.				
	8						

DRILLING LOG

HOLE NO.	040-B03
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685616.21; Northing=532225.95
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	26 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240 / Metals
	SW8270 / E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM), reddish yellow (7.5YR 7/8), fine grained, moist, non plastic, medium dense.	1.2	0.1	5/6/5/5	
	2			1.7	0.9	3/3/3/7	
	4			0.3	0.7	5/4/4/4	
	6		POORLY GRADED SAND (SP), reddish yellow (7.5YR 6/6), fine grained, with silt and fine gypsum crystals, moist, nonplastic, medium dense.	0.0	0.0	3/2/1/1	
	8			0.0	1.7	2/2/1/1	040-B03-01-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 040-B03

1. COMPANY NAME: Radian Corporation
2. INSPECTOR: Christopher D. Larson
SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above. Very pale brown (10YR 8/4), with trace of silt.	0.0	0.0	2/3/4/16	
	12			0.0	0.0	13/32/36/50+	
	14			0.0	0.0	15/25/29/50+	
	16			0.2	0.0	13/28/29/50+	
	18		LEAN CLAY (CL); reddish yellow (7.5YR 6/6), with fine grained sand, moist, low plasticity, stiff.	0.7	1.0	50+	
	20		POORLY GRADED SAND (SP); very pale brown (10YR 8/4), very fine grained , moist, nonplastic, dense.	0.3	0.7	37/50+	
	22			0.2	0.3	17/23/43/40	
	24		Moist to wet.	0.7	0.5	20/39/25/50+	040-B03-02-01
▼	26		Water table at 26.0 ft. Total Depth = 26.0 ft.				

PROJECT: Table 2 - RFI

HOLE NO.: 040-B03

DRILLING LOG

HOLE NO.	054-B01
SHEET 1 OF 2 SHEETS	

1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD Split spoon (ASTM D1586-84) 3" ID/2" ID 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673627.10; Northing=554965.84
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	10.9 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; E418.1; Metals
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (7.5YR 3/3), fine grained, with fine gravel and fine gypsum crystals, dry, nonplastic, loose.		1.8	9/13	054-B01-01-01
	2				0.7	5/5/4/3	
	4		SILTY SAND (SM): reddish yellow (7.5YR6/6), fine grained, with caliche inclusions, moist, nonplastic, medium dense.		1.9	16/33/17/16	
	6		SILTY SAND (SM): yellow (10YR 7/8), fine grained, moist, nonplastic, medium dense		1.4	9/16/16/17	054-B01-02-01
	8		CLAYEY SAND (SC): reddish brown (2.5YR4/4), fine grained, with caliche inclusions, moist, nonplastic, dense.		0.0	16/25/38/48	
					0.0	15/21/30/50+	054-B01-03-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 054-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.		0.0	15/21/30/50+	054-B01-03-01
			Water table at 10.8 ft.				
			Total Depth = 11.00 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 054-B01

DRILLING LOG

HOLE NO.	054-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673610.51; Northing=554982.24
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	10.7 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (75YR 3/3), fine grained, with fine gravel and fine gypsum crystals, dry, nonplastic, loose.	0.0	1.2	9/13	054-B02-01-01
	2			0.0	0.0	4/4/2/2	
	4		SILTY SAND (SM): pale brown (10YR 8/4), fine grained, moist, nonplastic, loose.	0.0	0.0	2/2/2/1	054-B02-02-01
			CLAYEY SAND (SC): reddish brown (2.5YR 4/4), fine grained, moist, nonplastic, very loose.				
	6		SILTY SAND (SM): pale brown (10YR 8/4), fine grained, moist, nonplastic, medium dense.	0.0	0.5	14/12/14/12	
			SILTY SAND (SM): reddish brown (7.5YR 6/6), fine grained, moist, nonplastic, medium dense.				
	8		CLAYEY SAND (SC): reddish brown (2.5YR 4/4), fine grained, with fine gypsum crystals, moist, nonplastic, dense.	0.0	0.0	16/24/30/40	
				0.0	0.0	21/30/31/28	054-B02-03-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 054-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.				
			SANDY SILT (ML): reddish yellow (7.5YR 7/6), fine grained, wet, low plasticity, soft.	0.0	0.0	21/30/31/28	054-B02-03-01
			Water table at 10.7 ft.				
			Total Depth = 11.00 ft.				

10, 12, 14, 16, 18, 20, 22, 24, 26, 28

PROJECT: Table 2 - RFI

HOLE NO.: 054-B02

DRILLING LOG

HOLE NO.	055-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 1 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673504.27; Northing=554973.33
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	8.2 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	9.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Matthew Pannett

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (5YR 6/8), fine to medium grained, moist, low plasticity, dense.	0.0	0.0	8/7	055-B01-01-01
	2		SILTY SAND (SM): brown (7.5YR 5/4), with fine gypsum crystals, moist, medium plasticity, dense.	0.0	0.0	3/5/4/4	
	4		SANDY SILT (ML): pale yellow (2.5YR 8/1), with fine grained sand, moist, low plasticity, hard.	0.0	0.0	9/26/17/10	055-B01-02-01
			SILTY SAND (SM): reddish yellow (5YR 6/8), with fine grained sand, moist, nonplastic, dense.				
	6		POORLY GRADED SAND (SP): red (2.5YR 5/6), fine grained, with fine to medium gypsum crystals, moist, nonplastic, dense.	0.0	1.9	6/10/12/18	
▼	8		SANDY SILT (ML): pale brown (10YR 8/4), with fine grained sand, wet, with caliche inclusions, wet, low plasticity, soft. Water table at 8.2 ft.	0.0	0.3	9/30/30/24	055-B01-03-01
			Total Depth = 9.00 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	055-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673533.39; Northing=554946.64
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	9 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	11.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Matthew Pannett

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): light brown (7.5YR 6/4), fine grained, moderate petroleum odor, moist, nonplastic, loose.	0.0	0.0	7/7	055-B02-01-01
	2		SANDY SILT (ML): strong brown (7.5YR 5/6), very fine grained sand and root inclusions, moist, nonplastic, soft.	0.0	0.0	4/5/5/5	
	4			0.0	0.0	11/13/15/11	055-B02-02-01
			SILTY SAND (SM): strong brown (7.5YR 4/6), with fine grained sand, moist, low plasticity, medium dense.				
	6			0.0	0.3	11/13/16/14	
			SANDY SILT (ML): reddish brown (5YR 6/8), with fine grained sand and coarse grained gypsum crystals, moist, medium plasticity, medium dense.				
	8			0.0	0.0	9/20/41/50+	
▼			SANDY SILT (ML): red (2.5YR 4/8), very fine grained, with very fine grained sand and fine to coarse grained gypsum crystals, wet, nonplastic, firm.				
			SANDY SILT (ML): pale brown (10YR 8/4), with caliche, saturated, low plasticity, firm.	0.0	0.0	10/22/39/50+	055-B02-03-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 055-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Matthew Pannett

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SANDY SILT (SM) as above.	0.0	0.0	10/22/39/50+	055-B02-03-01
			Total Depth = 11.00 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 055-B02

DRILLING LOG

HOLE NO.	056-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=667755.52; Northing=540584.71
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	3 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SANDY SILT (ML): dark brown (7.5YR 3/4), with fine grained sand and fine gravel, dry to moist, nonplastic, medium dense.	0.0	0.0	6/7/8/5	056-B01-01-01
	2		Reddish yellow (7.5YR 8/6), with fine grained sand, moist to wet, nonplastic, loose.				
▼			Water table at 3.0 ft.	0.0	0.0	0/1/4/6	
	4		Total Depth = 4.0 ft.				056-B01-02-01
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	056-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673533.39; Northing=554946.64
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240 / Metals
	SW8270 / E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (7.5YR 3/4), fine grained, with fine gravel, dry to moist, nonplastic, medium dense.			6/5/7/6	056-B02-01-01
	2		SILTY SAND (SM): light yellowish brown (10YR 6/3) mottled with very dark brown (10YR 2/2), fine grained, moist, low plasticity, loose. Water table at 3.0 ft.			6/4/4/4	056-B02-02-01
	4		Total Depth = 4.0				
	6						
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI HOLE NO.: 056-B02

DRILLING LOG

HOLE NO.	056-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=667703.52; Northing=540597.10
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, dark brown (7.5YR 3/4), fine grained, with fine gravel and bitiminous, dry to moist, nonplastic, medium dense.	0.0	0.0	7/8/7/4	056-B03-01-01
	2		SILT (ML): reddish yellow (7.5YR 8/6), moist, nonplastic, firm				
▼			Water table at 3.0 ft.	0.0	0.0	4/3/7/8	056-B03-02-01
	4		Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	063-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671114.66; Northing=542959.41
9. SURFACE ELEVATION	
10. DATE STARTED	11/7/93
11. DATE COMPLETED	11/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.75 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; Metals; SW8270; SW8015
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			Asphalt				
			SILTY SAND (SM); reddish brown (5YR 5/4) fine grained, with fine gravel, moist, nonplastic, dense. yellow (10 YR 7/6), fine grained, moist, low plasticity, dense	1.2	2.0	24/21/18/23	063-B01-01-01
	2			1.3	1.7	14/13/12/11	
	4		Water table at 4.75 ft.	1.0	0.7	4/3/3/6	063-B01-02-01
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 063-B01

DRILLING LOG

HOLE NO.	071-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD Split spoon (ASTM D1586-84) 3" ID/2" ID 140 lb. drop-hammer
8. HOLE LOCATION	Easting=686962.15; Northing=533240.25
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
SW8080	
E418.1	
Metals	
SW8015	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): pale yellow (2.5YR 8/4), fine grained, moist, low plasticity, medium dense.	0.0	0.0	4/5/5/11	071-B01-01-01
	2		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), very fine grained, moist, nonplastic, medium dense.	0.0	0.0	16/23/13/10	
	4			0.0	0.0	4/5/5/6	
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	071-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=686955.59; Northing=533240.46
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
SW8080	
E418.1	
Metals	
SW8015	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): pale yellow (2.5YR 8/4), fine grained, low plasticity, loose.	0.0	0.8	4/3/2/4	071-B02-01-01
	2		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), very fine grained, moist, nonplastic, medium dense.	0.0	1.2	3/4/7/9	
	4			0.7	1.2	4/6/6/5	
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	071-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 1 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=686961.52; Northing=533248.21
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; SW8080; E418.1; Metals; SW8015
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): pale yellow (2.5YR 8/4), fine grained, moist, low plasticity, loose.	0.0	0.7	6/6/8/7	071-B03-01-01
	2		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), very fine grained, moist, nonplastic, medium dense.	0.0	0.0	11/23/13/11	
	4			0.0	0.0	7/7/6/3	
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	071-B04
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=686959.29; Northing=533242.58
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
SW8080	
E418.1	
Metals	
SW8015	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): pale yellow (2.5YR 8/4), fine grained, moist, low plasticity, medium dense.	0.0	0.0	6/9/12/14	071-B04-01-01
	2			0.0	0.0	3/11/7/9	
	4			0.0	0.0	5/5/9/4	
			POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), fine grained, moist, nonplastic, loose.				
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	071-B05
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=686959.29; Northing=533242.70
9. SURFACE ELEVATION	
10. DATE STARTED	11/5/93
11. DATE COMPLETED	11/5/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	26 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	28.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; SW8080; E418.1; Metals; SW8015
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): reddish brown (7.5YR 6/6), fine grained, with silt, moist, nonplastic, loose.	1.3	0.0	3/3/6/11	071-B05-01-01
	2			1.8	2.0	3/11/6/7	
	4			2.2	3.6	6/3/3/7	
	6			1.2	3.3	12/9/77	
	8		SILTY SAND (SM): pale yellow (2.5YR 8/3), fine grained, moist, low plasticity, medium dense.	2.1	1.8	6/16/19/23	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 071-B05

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.				
			LEAN CLAY (CL): reddish yellow (7.5YR 6/6), fine grained, with sand, with fine gypsum crystals, moist, medium plasticity, firm.	2.7	2.0	7/11/14/15	
	12			2.1	2.3	48/11/14	
	14			2.0	2.5	4/16/43/47	
			POORLY GRADED SAND (SP): light gray (2.5YR 7/2), very fine grained, moist, nonplastic, dense.				
	16		Mottled with reddish yellow (7.5YR 6/6).	1.0	0.0	18/21/10/14	071-B05-02-01
	18			0.0	1.8	7/24/20/15	
	20			0.0	0.0	9/12/14/22	071-B05-03-01
			LEAN CLAY (CL): reddish yellow (7.5YR 6/6), with fine grained sand, with fine gypsum crystals, wet, medium plasticity, firm				
	22			0.0	0.6	16/13/19/50	
			SILTY SAND (SM): light gray (2.5YR 7/2), fine to very fine grained, wet, low plasticity, dense.				
	24			1.2	0.0	9/8/16/50	
			LEAN CLAY (CL): reddish yellow (7.5YR 6/6), with fine grained sand, wet, medium plasticity, hard.				
▼	26		SILTY SAND (SM): light gray (2.5YR 7/2), very fine grained, saturated low plasticity, dense. Water table at 26.0 ft.	1.2	0.0	8/8/16/50	
			Total Depth = 28.0 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 071-B05

DRILLING LOG

HOLE NO.	078-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=668327.96; Northing=540213.00
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; Metals; SW8080; SW8270; E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL; silty sand, dark red (2.5YR 4/5), fine grained, with fine to coarse grained gravel, moist, nonplastic, medium dense.	3.0	5.2	2/5/8/8	078-B01-01-01
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, wet to satu rated, low plasticity, medium dense.				
			With gray (10YR 6/1) streaking, moderate petroleum odor. Water table at 3.0 ft.	263.2	434.7	4/8/9/3	078-B01-02-01
	4		Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	078-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=668431.16; Northing=540188.37
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; Metals; SW8080; SW8270; E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL; silty sand, dark red (2.5YR 4/5), fine grained, moist to wet, nonplastic, medium dense.	2.3	11.1	3/7/6/13	078-B02-01-01
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, wet to saturated, low plasticity, medium dense.	0.8	1.2	12/10/11/16	078-B02-02-01
	4		Water table at 3.8 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 078-B02

DRILLING LOG

HOLE NO.	078-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=668348.66; Northing=540075.97
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No; DISTURBED; UNDISTURBED
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8240, Metals, SW8080; SW8270, E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: Grout; MONITORING WELL; OTHERS (SPECIFY)
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL; dark red (2.5YR 4/5), fine grained silty sand, with fine gravel, moist, nonplastic, loose.	0.7	1.0	2/6/7/4	078-B03-01-01
	2		Silty Sand (SM); reddish yellow (7.5YR 7/6), fine grained, wet to saturated, low plasticity, loose.				
			Very pale brown (7.5YR 8/4)	0.0	0.0	11/11/10/16	078-B03-02-01
	4		Water table at 3.5ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 078-B04		
1. COMPANY NAME: Radian Corporation	2. DRILLING SUBCONTRACTOR: Southwest Engineering, Inc.	SHEET 1 OF 1 SHEETS
3. PROJECT: Table 2 - RFI	4. LOCATION: Holloman AFB	
5. NAME OF DRILLER: Art Valtierra	6. MANUFACTURERS DESIGNATION OF DRILL: CME 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer	8. HOLE LOCATION: Easting=668406.50; Northing=540084.58	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/8/93	11. DATE COMPLETED: 11/8/93
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 3 ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 4.00 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
No			NA

20. SAMPLES FOR CHEMICAL ANALYSIS						21. TOTAL CORE REC.
Yes	SW8240	Metals	SW8080			NA
	SW8270	E418.1				

22. DISPOSITION OF HOLE	GROUTED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	Grout			Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 5/6), fine grained, with fine gravel, wet, nonplastic, loose.	0.9	2.2	1/2/4/6	078-B04-01-01
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, wet to saturated, medium plasticity, loose. Water table at 3.0 ft.	0.0	0.7	3/2/6/4	078-B04-02-01
	4		Total Depth = 4.0 ft.				
	6						
	8						

DRILLING LOG

HOLE NO. 091-B01		
1. COMPANY NAME: Radian Corporation	2. DRILLING SUBCONTRACTOR: Southwest Engineering, Inc.	SHEET 1 OF 1 SHEETS
3. PROJECT: Table 2 - RFI	4. LOCATION: Holloman AFB	
5. NAME OF DRILLER: Art Valtierra	6. MANUFACTURERS DESIGNATION OF DRILL: CME 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer	8. HOLE LOCATION: Easting=668068.52; Northing=538844.68	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/7/93	11. DATE COMPLETED: 11/7/93
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 5.5 ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 6.00 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
No			NA

20. SAMPLES FOR CHEMICAL ANALYSIS						21. TOTAL CORE REC.
Yes	SW8240	E418.1				NA
	Metals					

22. DISPOSITION OF HOLE	GROUTED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	Grout			Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, yellowish red (5YR 4/6), fine grained, with fine gravel, dry, medium dense.				
			SILTY SAND (SM): yellowish red (5YR 4/6), fine grained, moist, nonplastic, medium dense.	0.8	4.2	9/8/10/11	091-B01-01-01
	2		SILTY SAND (SM): very pale brown, (10YR 8/4), fine grained, moist, nonplastic, medium dense.	0.2	1.0	5/9/19/37	
	4		Wet.	0.7	0.0	22/13/12/22	
▼			Water table at 5.5 ft.				
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	091-B02
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=668050.40; Northing=538824.89
9. SURFACE ELEVATION	
10. DATE STARTED	11/7/93
11. DATE COMPLETED	11/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	5.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, yellowish red (5YR 4/6), fine grained, with fine and coarse gravel, dry, nonplastic, loose.	0.0	1.3	7/7/8/4	091-B02-01-01
	2		SILTY SAND (SM): grayish brown (10YR 5/2), fine grained, moist, low plasticity, loose.				
			SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, moist to wet, low plasticity, medium dense.	0.0	0.9	5/7/23/18	
	4		Yellowish brown (10YR 5/6)				
			Very pale brown (10YR 8/4)	3.2	3.0	15/15/21/45	
			Water table at 5.5 ft.				
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 091-B02

DRILLING LOG

HOLE NO.	118-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669291.04; Northing=553888.15
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
SW8140	
SW8080	
E418.1	
SW8150	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, brown (7.5YR 5/4), fined grained, with trace fine gravel, moist, nonplastic, medium dense.	0.7	2.0	4/5/6/16	
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, moist to wet, loose.	0.5	0.0	4/4/5/5	118-B01-01-01
	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	118-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669296.34; Northing=553892.46
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240, SW8140, SW8080, E418.1, SW8150
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): brown (7.5YR 5/4), fine grained, with trace of fine gravel, possible fill, moist, nonplastic, dense.	0.0	0.0	2/3/16/17	
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, moist, low plasticity, loose.	0.0	1.6	4/4/5/5	
▼	4		Water Table at 4.0 ft.	0.0	7.2	2/3/3/5	118-B02-01-01
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	118-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669289.45; Northing=553892.06
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.25 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240, SW8140, SW8080, E418.1, SW8150
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, yellowish red (5YR 5/8), fine grained, trace fine gravel, moist, nonplastic, medium dense.	0.0	0.0	3/4/10/14	
	2		SILTY SAND (SM): strong brown (7.5YR 5.8), fine grained, wet, low plasticity, medium dense.	0.0	0.0	4/4/5/9	
	4		Water table at 4.25 ft.	0.0	0.0	2/2/1/5	118-B03-01-01
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	118-B04
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669298.37; Northing=553886.47
9. SURFACE ELEVATION	
10. DATE STARTED	11/8/93
11. DATE COMPLETED	11/8/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	1 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; SW8140; SW8080; E418.1; SW8150
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, brown (7.5YR 5/4), fine grained, with trace fine gravel, moist, nonplastic; dense.	0.0	0.0	2/3/16/17	
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, wet, low plasticity, loose.	0.0	0.0	2/1/1/4	118-B04-01-01
	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 118-B05		
1. COMPANY NAME: Radian Corporation	2. DRILLING SUBCONTRACTOR: Southwest Engineering, Inc.	SHEET 1 OF 1 SHEETS
3. PROJECT: Table 2 - RFI	4. LOCATION: Holloman AFB	
5. NAME OF DRILLER: Art Valtierra	6. MANUFACTURERS DESIGNATION OF DRILL: CME 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer	8. HOLE LOCATION: Easting=669294.01; Northing=553890.52	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/8/93	11. DATE COMPLETED: 11/8/93
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 4 ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 6.00 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
No			NA

20. SAMPLES FOR CHEMICAL ANALYSIS						21. TOTAL CORE REC.
Yes	SW8240	SW8140	SW8080			NA
	E418.1	SW8150				

22. DISPOSITION OF HOLE	GROUTED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	Grout			Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, dark red (2.5YR 4/8), fine grained, with fine gravel moist, nonplastic, loose.	0.2	0.7	4/4/5/5	
	2		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, moist to wet, nonplastic, loose.	0.0	0.1	4/1/1/2	
▼	4		Water table at 4.0 ft.	0.0	5.7	2/3/16/17	118-B05-01-01
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	119-B01
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671948.67; Northing=554679.15
9. SURFACE ELEVATION	
10. DATE STARTED	11/2/93
11. DATE COMPLETED	11/2/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	9.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	12.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): reddish yellow 7.5YR 6/6), fine grained, with silt, moist, nonplastic, loose.	6.8	0.0	6/3/3/5	
	2			6.7	0.0	3/6/5/6	
	4		Reddish yellow (7.5YR 7/6), very fine grained.	1.7	0.0	6/9/16/21	
	6		LEAN CLAY (CL): yellowish red (5YR 5/6), with silt, wet, medium plasticity, soft.	0.0	0.0	9/12/13/18	
	8		LEAN CLAY (CL): reddish brown (5YR 4/4), with silt, medium plasticity, soft. With fine gypsum crystals from 9.5 ft. to 10.0 ft.	0.0	0.0	9/12/13/18	119-B01-01-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 119-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			LEAN CLAY (CL) as above.	0.0	0.0	4/21/33/25	119-B01-02-01
			POORLY GRADED SAND (SP): (5YR 7/3), very fine grained, wet, nonplastic, dense.				
	12		Total Depth = 12.0 ft.				

10, 12, 14, 16, 18, 20, 22, 24, 26, 28

PROJECT: Table 2 - RFI

HOLE NO.: 119-B01

DRILLING LOG

HOLE NO.	119-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=671952.33; Northing=554671.02
9. SURFACE ELEVATION	
10. DATE STARTED	11/2/93
11. DATE COMPLETED	11/2/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	9.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	12.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; E418.1; Metals
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): reddish yellow (7.5YR 6/6), fine grained, with silt, moist, nonplastic, loose.	0.0	0.0	2/3/3/3	
	2			0.4	14.4	7/4/3/3	
	4		SILTY SAND (SM): reddish yellow (7.5YR 6/6), fine grained, moist, nonplastic, very loose.	8.2	73.6	1/1/1/1	
	6		LEAN CLAY (CL): reddish yellow (7.5YR 6/6), with fine grained sand, moist, low plasticity, firm.	2.0	101.0	2/6/4/4	
			POORLY GRADED SAND (SP): light brown (7.5 6/8), fine grained, moist, nonplastic, loose.				
	8		LEAN CLAY (CL): (5YR 4/4), with silt, with fine gypsum crystals, moist low plasticity, firm.	0.0	0.3	0/2/4/8	119-B02-01-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 119-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			LEAN CLAY (CL) as above.				
			POORLY GRADED SAND (SP): reddish yellow (7.5YR 6/6), very fine grained, with silt, wet, nonplastic, dense.	0.5	6.0	24/29/34/50	119-B02-02-01
	12		Total Depth = 12.0 ft.				
	14						
	16						
	18						
	20						
	22						
	24						
	26						

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 119-B02

DRILLING LOG

HOLE NO.	123-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673441.13; Northing=554953.33
9. SURFACE ELEVATION	
10. DATE STARTED	11/19/93
11. DATE COMPLETED	11/19/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	10.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (7.5YR 3/3), fine grained, with fine gravel, dry, nonplastic, loose. Strong grayish black staining, strong petroleum odor		>9000	3/0/1/3	
	2				>9000	1/1/1/1	
	4		SILTY SAND (SM): yellow (10YR 7/8), fine grained, with strong blackish gray staining, strong petroleum odor, wet, nonplastic, medium dense.		>9000	1/3/6/14	123-B01-01-01
	6				>9000	3/8/10/20	
	8				>9000	3/8/20/17	123-B01-02-01
			Total Depth = 10.0 ft.				

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 123-B01

DRILLING LOG

HOLE NO.	123-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=673444.16; Northing=554968.50
9. SURFACE ELEVATION	
10. DATE STARTED	11/19/93
11. DATE COMPLETED	11/19/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	10.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (7.5YR 3/3), fine grained, moist, nonplastic, medium dense.				
			SILTY SAND (SM): reddish yellow (7.5YR 6/6), fine grained, moist, nonplastic, medium dense.	0.0	0.0	6/5/5/5	
	2			0.0	0.0	8/14/14/9	
	4		POORLY GRADED SAND (SP): red (2.5YR 4/6), fine grained, with fine gypsum crystals, moist, nonplastic, medium dense.	56.2	160.5		123-B02-01-01
	6		Blackish gray staining, moderate petroleum odor.	65.2	1225.0		
	8		CLAYEY SAND (SC): fine grained, with blackish gray staining, strong petroleum odor, moist, nonplastic.		>9000		123-B02-02-01
			Total Depth = 10.0 ft.				

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 123-B02

DRILLING LOG

HOLE NO.	125-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=670446.29; Northing=543505.18
9. SURFACE ELEVATION	
10. DATE STARTED	11/7/93
11. DATE COMPLETED	11/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.0 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	9.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: well graded sand, yellowish red (5YR 5/8), medium grained, with fine gravel, dry, nonplastic, medium dense.	0.0	0.0	6/5/9/10	
	2	Fill	FILL: silty sand, brown (7.5YR 4/4), fine to medium grained, moist, nonplastic, loose.	0.0	0.0	3/7/2/2	
			FILL: poorly graded sand, yellowish red (5YR 5/6), fine grained, nonplastic, loose.				
▼	4	Fill	FILL: poorly graded sand and gravel, dark brown (7.5YR 3/3), fine to medium grained, with silt, nonplastic, very loose. Water table at 4.0 ft.	0.0	0.0	1/1/1/1	125-B01-01-01
	6	Fill		0.0	0.0	1/1/1/1	
	8	Fill		0.0	0.0	1/1/1/1	
			Total Depth = 9.0 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	125-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=670423.81; Northing=543443.87
9. SURFACE ELEVATION	
10. DATE STARTED	11/7/93
11. DATE COMPLETED	11/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.20 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	9.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: well graded sand, yellowish red (5YR 6/8), with fine gravel, dry, nonplastic, loose.	0.0	0.0	2/5	
	2	Fill	FILL: silty sand, brown (7.6YR 4/4), fine grained, moist, low plasticity, loose.	0.0	0.0	6/4/4/2	
	4	Fill	Water table at 4.2 ft.	0.0	0.0	8/8/4/1	125-B02-01-01
	6	Fill	FILL: poorly graded sand and gravel, dark brown (7.5YR 3/3), fine to medium grained, saturated, nonplastic, loose				
	8	Fill					
			Total Depth = 9.0 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	126-B01
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676920.90; Northing=549066.06
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	12.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILT (ML): very pale brown (10YR 7/4), with clay, moist, nonplastic, soft. Black staining, no petroleum odor.		0.0	1/1/1/1	
	2				0.0	1/1/1/1	126-B01-01-01
			POORLY GRADED SAND (SP): reddish yellow (5YR 6/6), fine grained, moist, nonplastic, very loose.				
	4				1.0	1/1/1/1	
	6		Medium dense.		12.5	8/15/14/24	126-B01-02-01
	8		Wet.		0.0	15/16/19/13	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 126-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.		0.0	20/30/29/30	126-B01-03-01
	12		Total Depth = 12.0 ft.				
	14						
	16						
	18						
	20						
	22						
	24						
	26						

DRILLING LOG

HOLE NO.	126-B02
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table II - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 4.25" ID; 8.5" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676914.68; Northing=549061.73
9. SURFACE ELEVATION	
10. DATE STARTED	11/3/93
11. DATE COMPLETED	11/3/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	12.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILT (ML): very pale brown (10YR 7/4), fine grained, moist, nonplastic, soft.		0.0	1/1/1	
	2		POORLY GRADED SAND (SP): reddish yellow (5YR 6/6), very fine grained, mottled with pale brown silt, moist, nonplastic, loose.		0.0	1/2/1/1	
	4				0.0	1/2/2/1	
			With fine gravel from 5.2 ft. to 5.4 ft.				
	6				0.0	7/15/16/11	126-B02-01-01
	8				0.0	19/27/26/31	

DRILLING LOG

HOLE NO.	
126-B02	

1. COMPANY NAME	2. INSPECTOR	SHEET 2
Radian Corporation	David R. Robbins	OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.		0.0		126-B02-02-01
	12		Total Depth = 12.0 ft.				
	14						
	16						
	18						
	20						
	22						
	24						
	26						

10 12 14 16 18 20 22 24 26 28

PROJECT: Table II - RFI

HOLE NO.: 126-B02

DRILLING LOG

HOLE NO.	127-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676337.02; Northing=553543.36
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	20 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	23.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (5YR 6/6), fine grained, with fine gypsum crystals, dry, nonplastic, loose.	0.0	1.0	4/10/9/8	
	2						
				0.0	1.6	6/5/5/15	
	4						
	6			0.0	0.3	19/44/50+	127-B01-01-01
	8		SANDY CLAY (CL): reddish brown (2.5YR 4/4), with fine grained sand, dry, low plasticity, hard.	0.3	23.9	14/26/40/50+	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 127-B01

1. COMPANY NAME: Radian Corporation
2. INSPECTOR: David R. Robbins
SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC): pinkish gray (5YR 6/2), fine grained, with fine gypsum crystals, dry, nonplastic, dense.				
	12			0.3	30.6	18/33/40/50+	
			Light brownish gray (10YR 6/2) staining from 12.5 ft. to 15.0 ft., no petroleum odor.				
	14			8.0	25.9	9/17/32/50+	127-B01-02-01
			SANDY CLAY (CL): reddish brown (2.5YR 4/4), with fine grained sand, dry, low to medium plasticity, hard.				
	16			3.0	15.8	15/17/19/23	
	18						
			CLAYEY SAND (SC): gray (2.5Y 6/1), with fine grained sand, light gray staining from 19.5 ft. to groundwater, wet, nonplastic, loose.	3.5	23.9	5/17/50+	127-B01-03-01
▼	20		Water table at 20.0 ft.				
	22			11.1	167.0	17/19/40/50+	127-B01-04-01
			Total Depth = 23.00 ft.				
	24						
	26						

PROJECT: Table 2 - RFI

HOLE NO.: 127-B01

DRILLING LOG

HOLE NO.	127-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=676292.63; Northing=553558.17
9. SURFACE ELEVATION	
10. DATE STARTED	11/15/93
11. DATE COMPLETED	11/15/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	19.6 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	22.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240 Metals
	SW8270 E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (5YR 6/6), fine grained, dry, nonplastic, loose.	0.0	3.2	3/7/8/10	
	2			0.0	0.0	12/18/18/19	
	4			0.0	0.0	15/27/23/30	
	6		SANDY CLAY (CL): reddish brown (2.5YR 4/4), with fine gypsum crystals, dry, low plasticity, hard.	0.0	0.0	18/36/18/50+	127-B02-01-01
	8		CLAYEY SAND (SC): reddish brown (2.5YR 4/4), fine grained, with fine gypsum crystals, dry, nonplastic, dense.	0.0	3.2	19/36/50+	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 127-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.	0.0	0.0	13/23/28/50+	
	12		SILTY SAND (SM): yellowish red (5YR 5/8), fine grained, moderate gray staining, moist, nonplastic, loose.	57.4	335.0	15/27/50+	127-B02-02-01
	14		POORLY GRADED SAND (SP): gray (7.5YR 6/1), fine grained, with large gypsum crystals, light gray staining to groundwater, moist,dense.	60.8	331.0	14/22/22/24	
	16			88.4	802.0	12/13/11/27	127-B02-03-01
	18			67.9	767.0	50+	127-B02-04-01
▼	20		Water table at 19.5 ft.	69.3	752.0	50+	
	22		Total Depth = 22.00 ft.				
	24						
	26						

PROJECT: Table 2 - RFI

HOLE NO.: 127-B02

DRILLING LOG

HOLE NO.	129-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 3 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.25" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684237.76; Northing=546168.58
9. SURFACE ELEVATION	
10. DATE STARTED	11/22/93
11. DATE COMPLETED	11/22/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	28.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	30.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; SW7421; SW8270; E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 6/4), fine grained, with trace fine gravel and root inclusions, dry, nonplastic, very loose.	0.0	0.0	1/2/1/1	129-B01-01-01
	2						
	4						
	6						
	8		CLAYEY SAND (SC): Yellowish red (5YR 5/6), fine grained, with fine gypsum crystals, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	18/22/33/34	129-B01-02-01
							10

DRILLING LOG

HOLE NO. 129-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.	0.0	0.0	11/12/42/50+	
	12			0.0	0.0	22/42/44/50+	
	14		POORLY GRADED SAND (SP): reddish yellow (7.5YR 6/6), fine grained, with silt, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	21/24/28/30	
	16			0.0	0.0	18/22/33/45	
	18		CLAYEY SAND (SC): yellowish red (5YR 5/6), fine grained, with silt, moist, low plasticity, dense.	0.0	0.0	12/24/28/27	
	20			0.0	0.0	16/19/31/50+	
	22		POORLY GRADED SAND (SP): very pale brown (10YR 8/6), fine grained, moist, nonplastic, dense.	0.0	0.0	26/35/40/48	
	24			0.0	0.0	9/16/19/17	
	26		SILTY SAND (SM): pale yellow (2.5YR 7/3), fine grained, with fine to medium gypsum crystals, wet, medium plasticity, medium dense.	0.0	0.0	16/23/29/29	

DRILLING LOG

HOLE NO. 129-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			Water table at 28.5 ft.				
			SILTY SAND (SM) as above.	0.0	0.0	9/12/17/34	129-B01-03-01
	30		Total Depth = 30.00 ft.				
	32						
	34						
	36						
	38						
	40						
	42						
	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 129-B01

DRILLING LOG

HOLE NO.	129-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684231.36; Northing=546249.51
9. SURFACE ELEVATION	
10. DATE STARTED	11/22/93
11. DATE COMPLETED	11/22/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
SW7060	
SW8270	
SW7421	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
	0		SILTY SAND (SM): yellowish brown (10YR 6/4), fine grained, with trace fine gravel and root inclusions, dry, nonplastic, medium dense.	0.0	0.0	11/3/11/17	129-B02-01-01
	2	CALICHE	CALICHE: very pale brown (10YR 8/6), dry, nonplastic, dense.	0.0	0.0	50+/40/41/25	
	4		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), very fine grained dry, nonplastic, loose.	0.0	0.0	9/5/4/5	
	6			0.0	0.0	15/28/26/29	
	8		CLAYEY SAND (SC): yellowish red (5YR 5/6), very fine grained, mottled with fine grained white sand, dry, nonplastic, medium dense.	0.0	0.0	20/31/32/38	129-B02-02-01
	10						

DRILLING LOG

HOLE NO. 129-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.	0.0	0.0	14/14/18/22	
	12			0.0	0.0	9/18/25/32	
	14			0.0	0.0	16/32/50+	
	16		SILTY SAND (SM): pale yellow (2.5YR 7/4), fine grained, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	15/22/30/33	
	18			0.0	0.0	15/27/36/41	
	20		POORLY GRADED SAND (SP): reddish yellow (7.5YR 6/6), fine grained, with silt, moist, nonplastic, medium dense.	0.0	0.0	12/14/13/14	
	22		SILTY SAND (SM): brownish yellow (10YR 6/6), fine grained, with sandy clay lenses (.25 in. thick), moist, nonplastic, medium dense.	0.0	0.0	10/10/13/13	
▼	24		SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, wet, medium plasticity, loose. Black stained layer (1 in. thick), no odor. Water table at 25.0 ft.	0.0	0.0	4/6/5/11	129-B02-03-01
	26		Total Depth = 26.00 ft.				

PROJECT: Table 2 - RFI

HOLE NO.: 129-B02

DRILLING LOG

HOLE NO.	129-B03
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684241.59; Northing=546331.88
9. SURFACE ELEVATION	
10. DATE STARTED	12/7/93
11. DATE COMPLETED	12/7/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	26.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	28.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240, SW7421, SW8270, E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand (SM): brown (7.5YR 5/6), fine grained, with root inclusion with small pieces of bituminous and fine gravel, dry, nonplastic, loose.	0.0	0.0	1/3/2/3	129-B03-01-01
	2		SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, moist, nonplastic, medium dense.	0.0	0.0	4/6/6/5	
	4		SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, wet, nonplastic, medium dense.	0.0	0.0	1/4/9/9	
	6			0.0	0.0	5/3/5/7	
	8		SILTY SAND (SM): yellowish red (5YR 5/8), fine grained, mottled with fine grained white sand, low plasticity, dense.	0.0	0.0	5/15/21/16	129-B03-02-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B03

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	7/12/17/19	
	12		CLAYEY SAND (SC): yellowish red (5YR 5/6), fine grained, moist, low plasticity, moist, medium dense.	0.0	0.0	3/6/13/15	
	14			0.0	0.0	3/11/14/13	
	16			0.0	0.0	3/7/15/9	
	18			0.0	0.0	6/11/15/10	
	20		POORLY GRADED SAND (SP): pale yellow (2.5YR 7/4), very fine grained, with silt, with moderate iron staining, moist, nonplastic, medium dense.	0.0	0.0	7/9/5/10	
	22		SILTY SAND (SM): pale yellow (2.5YR 8/4), fine grained, wet, nonplastic, loose.	0.0	0.0	2/3/3/5	
	24		SILTY SAND (SM): yellowish red (5YR 5/8), fine grained, wet, nonplastic, medium dense.	0.0	0.0	3/5/5/8	
▼	26		Water table at 26.5 ft.	0.0	0.0	3/6/21/9	129-B03-03-01
			Total Depth = 28.00 ft.				

PROJECT: Table 2 - RFI

HOLE NO.: 129-B03

DRILLING LOG

HOLE NO.	129-B05
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684166.67; Northing=545750.77
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270, SW7421, E418.1, SW9045
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): brown (7.5YR 4/4), fine grained, with fine gravel and root inclusions, moist, nonplastic, dense.				
			SILTY SAND (SM): pink (7.5YR 8/3), fine grained, mottled with yellowish red silty sand, moist, nonplastic, dense.	0.0	0.0	6/15/19/24	129-B05-01-01
	2			0.0	0.0	8/8/9/9	
	4			0.0	0.0	5/8/10/9	
	6		POORLY GRADED SAND (SP): yellowish red (5YR 5/6), very fine grained, with silt, moist, nonplastic, medium dense.	0.0	0.0	4/9/12/9	
	8		CLAYEY SAND (SC): yellowish red (5YR 5/6), fine grained, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	8/12/22/21	
			POORLY GRADED SAND (SP): yellowish red (5YR 4/6), fine grained, moist, nonplastic, dense.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B05

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.	0.0	0.0	11/25/33/29	
	12		SILTY SAND (SM): light gray (2.5YR 7/2), fine grained, mottled with fine grained white sand, moist, nonplastic, dense.				
			POORLY GRADED SAND (SP): yellowish red (5YR 4/6), fine to medium grained, moist, nonplastic, dense.	0.0	0.0	9/15/14/17	
	14			0.0	0.0	11/22/27/25	129-B05-02-01
			SILTY SAND (SM): light gray (2.5YR 7/2), fine grained, mottled with fine grained white sand, moist, nonplastic, very dense.				
	16			0.0	0.0	6/7/8/10	
			POORLY GRADED SAND (SP): pale brown (10YR 7/4), fine grained, mottled with yellowish red clayey sand and light gray silty sand, moist, nonplastic, medium dense.				
	18		POORLY GRADED SAND (SP): yellowish brown (2.5Y 6/3), very fine grained, moist, nonplastic, dense.	0.0	0.0	6/20/25/20	
	20			0.0	0.0	18/21/16/23	
			SILTY SAND (SM): pale brown (10YR 8/3), fine grained, mottled with pale brown and white clayey sand, moist, medium dense.				
	22			0.0	0.0	14/16/14/16	
	24			0.0	0.0	18/13/28/19	129-B05-03-01
▼			Water table at 25.5 ft.				
	26		Total Depth = 26.00 ft.				

PROJECT: Table 2 - RFI

HOLE NO.: 129-B05

DRILLING LOG

HOLE NO.	129-B06
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684116.92; Northing=545679.57
9. SURFACE ELEVATION	
10. DATE STARTED	11/18/93
11. DATE COMPLETED	11/18/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270, SW7421, E418.1, SW9045
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 4/6), fine grained, with fine grained gravel, moist, nonplastic, medium dense.				
			SILTY SAND (SM): pink (7.5YR 8/4), fine grained, moist, nonplastic, medium dense.	0.0	0.0	3/12/25/29	129-B06-01-01
	2			0.0	0.0	12/12/8/12	
	4			0.0	0.0	4/3/1/1	
			SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, moist, nonplastic, loose.				
	6		Moderate iron staining at 7.0 to 8.0 ft.	0.0	0.0	1/4/5/3	
	8		Pale yellow (2.5YR 7/3) from 8.5 to 9.5 ft.	0.0	0.0	2/5/12/8	

DRILLING LOG

HOLE NO. 129-B06

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTLY SAND (SM) as above.	0.0	0.0	5/5/6/9	
	12			0.0	0.0	7/11/12/19	
			SILTY SAND (SM): pale yellow (2.5YR 7/3), fine grained, mottled with white sand, moist, nonplastic, medium dense.				
	14			0.0	0.0	8/10/18/15	129-B06-02-01
			Olive yellow (2.5YR 6/8) from 15.5 ft. to 17 ft.				
	16			0.0	0.0	5/11/19/19	
			POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), fine grained, with silt lenses (.5 in. thick), moist, nonplastic, medium dense.				
	18			0.0	0.0	2/14/12/10	
	20			0.0	0.0	6/8/13/12	
	22			0.0	0.0	4/9/16/13	
	24			0.0	0.0	4/9/16/13	129-B06-03-01
▼			Water table at 25.5 ft.				
	26		Total Depth = 26.00 ft.				

PROJECT: Table 2 - RFI

HOLE NO.: 129-B06

DRILLING LOG

HOLE NO.	129-B07
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684163.07; Northing=545711.76
9. SURFACE ELEVATION	
10. DATE STARTED	11/18/93
11. DATE COMPLETED	11/18/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8270	
SW7421	
E418.1	
SW9045	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 4/6), fine grained, with fine gravel and root inclusions, dry, nonplastic, medium dense.				
			SILTY SAND (SM): pink (7.5YR 8/4), fine grained, dry, nonplastic, medium dense.	0.0	0.0	5/10/18/28	129-B07-01-01
	2			0.0	0.0	9/14/9/11	
	4		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), fine grained, with silt, dry, nonplastic, very loose.	0.0	0.0	10/2/1/1	
	6		SILTY SAND (SM): pale yellow (2.5YR 7/3), fine grained, mottled with fine grained white sand, moist, nonplastic, medium dense.	0.0	0.0	9/14/14/17	
	8			0.0	0.0	10/16/19/13	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B07

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	8/13/13/14	
	12		SILTY SAND (SM): brown (7.5YR 5/4), fine grained, mottled with fine grained white sand, moist, nonplastic, very dense.	0.0	0.0	8/16/37/31	
	14		SILTY SAND (SM): yellowish brown (2.5YR 6/4), fine grained, mottled with fine grained white sand, moist, nonplastic, very dense.	0.0	0.0	8/12/24/50+	129-B07-02-01
	16		Fine gypsum crystals from 17 ft. to 18 ft.	0.0	0.0	8/19/26/19	
	18		POORLY GRADED SAND (SP): pale yellow (2.5Y 8/4), very fine grained, moist, nonplastic, dense.	0.0	0.0	9/28/23/19	
	20		POORLY GRADED SAND (SP): white (5Y 8/1), very fine grained, moist, nonplastic, very dense.	0.0	0.0	19/25/30/27	
	22			0.0	0.0	8/11/10/17	
	24			0.0	0.0	8/23/24/23	129-B07-03-01
▼	26		Water table at 25.5 ft.				
			Total Depth = 26.00 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 129-B07

DRILLING LOG

HOLE NO.	129-B08
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684171.86; Northing=545668.00
9. SURFACE ELEVATION	
10. DATE STARTED	11/19/93
11. DATE COMPLETED	11/19/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270; SW7421; E418.1; SW9045
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 4/6), fine grained, with root inclusios, dry, nonplastic, loose.				
			SILTY SAND (SM): pale brown (10YR 8/2), fine grained, dry, nonplastic, dense.	0.0	0.0	6/6/5/8	129-B08-01-01
	2			0.0	0.0	4/8/26/14	
	4		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), fine grained, with silt, dry, nonplastic, medium dense.	0.0	0.0	8/13/12/10	
	6		CLAYEY SAND (SC): yellowish red (7.5YR 5/6), fine grained, mottled with fine grained white sand, moist, nonplastic, medium dense.	0.0	0.0	8/9/14/17	
	8		SILTY SAND (SM): pale yellow (2.5Y 7/3), fine grained, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	8/10/18/17	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B08

1. COMPANY NAME: Radian Corporation
2. INSPECTOR: Christopher D. Larson
SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	15/15/23/25	
	12			0.0	0.0	10/23/31/38	
	14			0.0	0.0	9/16/27/30	129-B08-02-01
	16		POORLY GRADED SAND (SP): pale yellow (2.5YR 8/2), fine grained, with silt, moist, nonplastic, dense.	0.0	0.0	18/14/24/26	
	18		Sandy silt lenses (.25 in. thick).	0.0	0.0	8/23/31/30	
	20			0.0	0.0	17/22/18/13	
	22			0.0	0.0	10/23/50+	
	24		Caliche lenses (.25 in. thick).	0.0	0.0	19/18/40/35	129-B08-03-01
▼			Water table at 25.5 ft.				
	26		Total Depth = 26.00 ft.				

DRILLING LOG

HOLE NO.	129-B09
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684224.81; Northing=545709.76
9. SURFACE ELEVATION	
10. DATE STARTED	11/19/93
11. DATE COMPLETED	11/19/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270, SW7421, E418.1, SW9045
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 4/6), fine grained, with fine gravel and root inclusions, dry, nonplastic, very dense.				
			SILTY SAND (SM): pale yellow (2.5Y 8/3), fine grained, dry, nonplastic, very dense.	0.0	0.0	2/4/16/38	129-B09-01-01
	2			0.0	0.0	9/10/9/9	
			POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), fine grained, dry, nonplastic, loose.				
	4			0.0	0.0	5/5/3/3	
	6		SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, mottled with fine grained white sand and fine gypsum crystals, moist, nonplastic, medium dense.	0.0	0.0	7/8/14/13	
	8			0.0	0.0	6/6/12/17	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B09

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.				
			SILTY SAND (SM): pale yellow (2.5YR 8/4), fine grained, mottled with fine grained white sand, moist, nonplastic, medium dense.	0.0	0.0	7/22/21/19	
	12			0.0	0.0	11/19/23/23	
	14		Slight iron staining from 15 ft. to 16 ft.	0.0	0.0	10/33/33/25	129-B09-02-01
	16			0.0	0.0	9/13/25/18	
	18			0.0	0.0	12/15/21/21	
	20		CLAYEY SAND (SC): reddish yellow (7.5YR 6/6), fine grained, mottled with very fine grained white sand, moist, nonplastic, medium dense.	0.0	0.0	10/7/11/17	
	22			0.0	0.0	10/6/8/10	
	24		POORLY GRADED SAND (SP): pale brown (10YR 8/4), fine grained, with silt, mottled with lenses of clayey sand (.25 in. thick), moist to wet, nonplastic, medium dense.	0.0	0.0	10/17/27/22	129-B09-03-01
▼			Water table at 25.5				
	26		Total Depth = 26.00 ft.				

DRILLING LOG

HOLE NO.	129-B10
SHEET 1 OF 3 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684345.28; Northing=546779.32
9. SURFACE ELEVATION	
10. DATE STARTED	11/15/93
11. DATE COMPLETED	11/15/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	32.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270, SW7421, SW7740, E418.1, SW7060
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (10YR 3/3), fine grained, with fine gravel, dry, nonplastic, dense.				
			SILTY SAND (SM): very pale brown (10YR 5/3), fine grained, moist to wet, low plasticity, loose.	0.0	3.8	5/8/7/23	129-B10-01-01
	2			0.0	0.0	9/8/6/4	
	4						
			POORLY GRADED SAND (SP): yellowish red (5YR 5/8), fine grained, with silt, moist, nonplastic, medium dense.	0.0	0.0	3/4/8/6	
	6			0.0	0.0	3/8/12/19	
	8			0.0	0.0	2/10/24/22	
			SILTY SAND (SM): pale yellow (2.5YR 8/3), fine grained, moist, low plasticity, dense.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	129-B10

1. COMPANY NAME	2. INSPECTOR	SHEET 2
Radian Corporation	Christopher D. Larson	OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	4/6/12/21	
	12			0.0	0.0	7/7/13/15	
	14		CLAYEY SAND (SC): yellowish red (5YR 5/6), fine grained, moist, low plasticity, dense.	0.0	0.0	8/10/16/19	129-B10-02-01
	16			0.0	0.0	7/10/16/21	
	18			0.0	0.0	8/18/17/21	
			SILTY SAND (SM): pale yellow (2.5YR 8/3), fine grained, with fine gypsum cyrstals, moist, low plasticity, dense.				
	20			0.0	0.0	6/9/13/14	
	22			0.0	0.0	7/10/15/13	
	24		SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, wet, low plasticity, dense.				
▼			Water table at 25.5 ft.	0.0	0.0	8/18/21/20	129-B10-03-01
	26			0.0	0.0	3/7/15/21	
							28

PROJECT: Table 2 - RFI

HOLE NO.: 129-B10

DRILLING LOG

HOLE NO. 129-B10

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	2/10/14/15	
	30			0.0	0.0	4/6/8/10	
	32		Total Depth = 32.00 ft.				
	34						
	36						
	38						
	40						
	42						
	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 129-B10

DRILLING LOG

HOLE NO.	129-B11
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684218.45; Northing=546807.81
9. SURFACE ELEVATION	
10. DATE STARTED	11/16/93
11. DATE COMPLETED	11/16/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	28.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	27 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8270	
SW7421	
E418.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			FILL: silty sand, pale brown (10YR 8/4), fine grained, with trace fine gravel and glass inclusions, moist, nonplastic, medium dense.				
			SILTY SAND (SM): pale brown (10YR 8/4), fine grained, moist, low plasticity, medium dense.	2.1	0.0	6/6/8/10	129-B11-01-01
	2			0.0	0.0	10/21/15/6	
	4			0.0	0.0	3/6/6/5	
	6		POORLY GRADED SAND (SP): pale brown (10YR 8/4), very fine grained, with trace silt, moist, nonplastic, medium dense.	0.0	0.0	6/9/13/12	
	8		SILTY SAND (SM): pale yellow (5YR 8/2), very fine grained, mottled with fine grained white sand, moist, nonplastic, very dense.	0.0	0.0	12/14/16/16	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B11

1. COMPANY NAME: Radian Corporation
2. INSPECTOR: Christopher D. Larson
SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	7/14/26/26	
	12		CLAYEY SAND (SC): reddish brown (5YR 5/4), fine grained, mottled with fine grained white sand, with trace fine gypsum crystals, nonplastic, dense.	0.0	0.0	10/17/28/26	129-B11-02-01
	14			0.0	0.0	16/35/50+	
	16			0.0	0.0	3/8/11/14	
	18		Wet.	0.0	0.0	9/12/12/14	
	20			0.0	0.0	4/6/10/8	
	22			0.0	0.0	3/7/11/11	
	24			0.0	0.0	4/6/5/5	
	26		SILTY CLAY (CL): strong brown (7.5YR 5/6), with fine grained sand and moderate iron staining, wet, medium plasticity, soft.				
▼			Water table at 27.0 ft.	0.0	0.0	4/5/7/9	129-B11-03-01
			Total Depth = 28.00 ft.				

DRILLING LOG

HOLE NO.	129-B12
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684265.76; Northing=546759.75
9. SURFACE ELEVATION	
10. DATE STARTED	11/16/93
11. DATE COMPLETED	11/16/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	27.25 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	28.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8270	
SW7421	
E418.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, moist, nonplastic, medium dense.	0.0	0.0	6/10/6/7	129-B12-01-01
	2			0.0	0.0	5/6/14/23	
	4		POORLY GRADED SAND (SP): reddish yellow (7.5YR 7/6), fine grained, moist, nonplastic, medium dense.	0.0	0.0	4/7/7/7	
	6			0.0	0.0	8/12/18/13	
	8		SILTY SAND (SM): pale yellow (2.5YR 8/2), fine grained, with silt, moist, nonplastic, dense.	0.0	0.0	8/15/22/10	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B12

1. COMPANY NAME: Radian Corporation
2. INSPECTOR: Christopher D. Larson
SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.				
			POORLY GRADED SAND (SP): pale yellow (2.5Y 7/3), fine grained, with silt, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	8/15/17/17	
	12		CLAYEY SAND (SC): reddish brown (5YR 5/4), fine grained, mottled with fine grained white sand and trace fine gypsum crystals, moist, nonplastic, medium dense.	0.0	0.0	7/11/12/17	
	14			0.0	0.0	4/7/10/14	129-B12-02-01
	16			0.0	0.0	3/8/14/14	
	18			0.0	0.0	7/9/17/14	
	20			0.0	0.0	6/11/15/16	
	22			0.0	0.0	5/11/12/26	
	24		POORLY GRADED SAND (SP): yellowish red (5YR 4/6), fine to medium grained, wet, nonplastic, dense.	0.0	0.0	11/21/31/20	
	26			0.0	0.0	18/29/16/15	129-B12-03-01
▼			Water table at 27.5 ft. Total Depth = 28.00 ft.				

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 129-B12

DRILLING LOG

HOLE NO.	129-B13
SHEET 1 OF 3 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684321.00; Northing=546820.81
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	29.75 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	32.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8270, SW7421, E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): strong brown (7.5&R 5/6), fine grained, with trace fine gravel, moist, nonplastic, medium dense.	0.0	0.0	10/9/12/16	129-B13-01-01
	2		SILTY SAND (SM): pink (7.5YR 8/4), fine grained, moist, low plasticity, medium dense.	0.0	0.0	6/22/10/6	
	4		POORLY GRADED SAND (SP): reddish yellow (7.5YR 8/6), fine grained, with silt, moist, nonplastic, medium dense.	0.0	0.0	4/7/10/8	
	6			0.0	0.0	6/11/15/13	
	8		SILTY SAND (SM): reddish brown (5YR 5/4), fine grained, mottled with fine grained white sand, moist, nonplastic, dense.	0.0	0.0	6/12/19/29	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-B13

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	7/13/24/27	
	12			0.0	0.0	8/16/24/32	
	14		With fine gypsum crystals from 14 ft. to 16 ft.	0.0	0.0	7/8/13/16	129-B13-02-01
	16			0.0	0.0	8/13/23/33	
	18			0.0	0.0	4/14/18/18	
	20		SILTY SAND (SM): yellowish red (5YR 5/8), fine grained, moist to wet, low plasticity, medium dense to loose.	0.0	0.0	6/13/16/14	
	22			0.0	0.0	5/6/7/8	
	24		POORLY GRADED SAND (SP): yellowish red (5YR 4/6), fine grained, wet, nonplastic, dense.	0.0	0.0	4/23/29/16	
	26		SILTY CLAY (CL): pale yellow (2.5Y 7/4), with sand, wet, medium plasticity, soft.	0.0	0.0	3/5/5/5	

DRILLING LOG

HOLE NO. 129-B13

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	1/4/4/5	
	30		Water table at 29.75 ft.				
			With fine gypsum crystals from 31 ft. to 32 ft.	0.0	0.0	2/3/4/5	129-B13-03-01
	32		Total Depth = 32.00 ft.				
	34						
	36						
	38						
	40						
	42						
	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 129-B13

DRILLING LOG

HOLE NO.	132-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669327.96; Northing=553877.80
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8080	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, moist to wet, low plasticity, loose to medium dense.	0.0	0.0	5/4/3/2	132-B01-01-01
	2			0.0	0.0	6/8/9/13	
	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	132-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669335.77; Northing=553888.24
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8080
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, with fine gravel and trace cobbles, mottled with silty sand, moist, nonplastic, medium dense.	0.0	0.0	6/10/8/4	132-B02-01-01
	2			0.0	0.0	3/3/5/5	
▼	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	132-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 1 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669334.58; Northing=553878.13
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8080
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, with trace fine gravel, moist, nonplastic, loose.	0.0	0.0	8/8/2/2	
	2		SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, moist to wet, low plasticity, loose.	0.0	0.0	1/1/4/7	132-B03-01-01
▼	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI HOLE NO.: 132-B03

DRILLING LOG

HOLE NO.	132-B04
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 1 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669340.08; Northing=553883.25
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8080
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, mottled with brown and yellowish red silty sand, moist, nonplastic, loose.	0.0	0.3	7/8/5/3	132-B04-01-01
	2		SILTY SAND (SM): reddish yellow (5YR 6/6), fine grained, moist to wet, low plasticity, medium dense.	0.0	0.2	5/3/10/15	
▼	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI HOLE NO.: 132-B04

DRILLING LOG

HOLE NO.	136-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=681551.47; Northing=540348.72
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	17 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	22.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): brown (7.5YR 5/4), fine grained, with root inclusions, dry, nonplastic, loose.	5.3	2.4	4/2/1/4	136-B01-01-01
	2			45.2	120.8	4/3/2/1	
			Very dark gray (N/3), with trace fine gravel, [redacted]				
	4			68.2	208.1	4/3/3/3	
	6		With fine gypsum crystals.	151.2	[redacted]	10/20/30/50	136-B01-02-01
	8		Dense.	146.0	2[redacted]	8/28/35/48	

0 2 4 6 8 10

DRILLING LOG

1. COMPANY NAME	2. INSPECTOR	HOLE NO.	SHEET
Radian Corporation	Christopher D. Larson	136-B01	2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	136.7	192.8	15/32/32/30	
	12		Reddish yellow (7.5YR 6/6), [redacted]	150.0	[redacted]	5/11/18/20	
	14		Light grey (7.5YR 7/11), wet, moderate petroleum odor.	54.2	[redacted]	3/4/6/7	136-B01-03-01
	16		Reddish yellow (7.5YR 6/6), wet to saturated, slight petroleum odor.				
[redacted]			[redacted]	33.2	180.1	6/12/19/17	
	18			20.1	150.2	6/12/18/18	
	20			30.3	107.2	7/10/12/33	
	22		Total Depth = 22.0 ft.				
	24						
	26						

DRILLING LOG

HOLE NO.	136-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table II - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 4.25" ID; 8.5" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=681535.16; Northing=540330.84
9. SURFACE ELEVATION	
10. DATE STARTED	11/4/93
11. DATE COMPLETED	11/4/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	26.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	Metals
SW8270	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellow (10YR 8/6), fine grained, moist, nonplastic, dense.	2.2	2.4	11/25/32/25	136-B02-01-01
	2			1.7	1.4	6/8/9/10	
	4			0.8	1.3	6/12/16/19	
	6			0.8	0.7	13/18/14/11	
	8		Mottled with fine gypsum crystals.	0.9	0.7	1/3/7/8	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 136-B02

1. COMPANY NAME: Radian Corporation
2. INSPECTOR: Christopher D. Larson
SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0		
	12			0.0	0.0	3/6/10/14	
	14		LEAN CLAY (CL): red (2.5YR 5/6), with silt and fine grained sand, mottled with fine gypsum crystals, moist to wet, low plasticity, firm.	0.0	0.0	5/6/8/12	136-B02-02-01
	16			0.0	0.0	4/6/8/10	
	18			2.3	3.1	3/9/8/10	
	20			0.0	2.8	6/8/22/15	
	22		POORLY GRADED SAND (SP): light grey (10YR 7/2), fine grained, with silt, wet, nonplastic, dense.	0.0	0.0	6/12/22/44	136-B02-03-01
	24						
▼			Water table at 25.0 ft.	0.0	0.0	10/7/29/39	
	26		POORLY GRADED SAND (SP): very pale brown (10YR 8/4), fine grained, with silt, saturated, nonplastic, dense.				
			Total Depth = 26.0 ft.				

PROJECT: Table II - RFI

HOLE NO.: 136-B02

DRILLING LOG

HOLE NO.	156-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1	OF 2 SHEETS
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=665642.07; Northing=545281.50
9. SURFACE ELEVATION	
10. DATE STARTED	11/18/93
11. DATE COMPLETED	11/18/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	2.4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	25.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
Metals	
SW8080	
SW8150	
E376.1	
SW8270	
SW8015	
SW8140	
SW9012	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC): red (2.5YR 4/6), fine grained, moist, low plasticity, very loose.				
			SILTY SAND (SM): light reddish brown (2.5YR 6/4), fine grained, moist, nonplastic, loose.			4/4/3	
	2		LEAN CLAY (CL): yellowish red (5YR 4/6), moist, high plasticity, firm. Water table at 2.4 ft. [redacted]			1/1/3/3	
	4				56.0	1/4/2/2	156-B01-01-01
	6		[redacted]		[redacted]	1/2/3/2	
	8				6.6	4/3/4/3	
			SILTY SAN[redacted]R 6/1), fine grained, wit[redacted] wet, nonplastic, loose.		9.7	1/2/4/5	156-B01-02-01

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 156-B01

DRILLING LOG

HOLE NO. 156-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.		9.7	1/2/4/5	156-B01-02-01
	12		CLAYEY SAND (SC): gray (5YR 5/1), fine grained, wet, low to medium plasticity, loose.			0/2/7/10	
			[redacted]				
	14		LEAN CLAY (CL): yellowish red (5YR 4/6), with fine gypsum crystals, moist, high plasticity, firm.			8/11/19/21	
	16					3/7/14/16	
	18					7/9/12/12	
	20					4/3/5/4	
	22					3/4/6/6	
	24				0.0	3/5/12/12	156-B01-03-01
			LEAN CLAY (CL): light olive brown, with fine grained sand, wet, medium plasticity, stiff.				
			Total Depth = 25.0 ft.				
	26						

PROJECT: Table 2 - RFI

HOLE NO.: 156-B01

DRILLING LOG

HOLE NO.	156-B02
SHEET 1 OF 3 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Jeff Wheeler
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=665673.22; Northing=545352.18
9. SURFACE ELEVATION	
10. DATE STARTED	11/23/93
11. DATE COMPLETED	11/23/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	2.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	42.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
Metals	
SW8080	
SW8150	
E376.1	
SW8270	
SW8015	
SW8140	
SW9012	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Chritopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			Asphalt				
			SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, with trace gravel inclusions, moist, low plasticity, loose.	0.0	0.0	6/6/8/7	
	2		Water table at 2.5 ft.				
			Light yellowish brown (10YR 6/4), saturated, very loose.	0.0	0.0	1/1/1/1	156-B02-01-01
	4			0.0	0.0	1/1/1/1	
	6			0.0	0.0	1/1/1/1	
	8						
			LEAN CLAY (CL): reddish yellow (5YR 6/2), fine grained with fine gypsum crystals, saturated, medium plasticity, firm.	0.0	0.0	1/2/1/1	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 156-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Chritopher D. Larson

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			LEAN CLAY (CL) as above.	0.0	0.0	1/2/2/1	
	12						
			SILTY SAND (SM): light yellowish brown (10YR 6/4), fine grained, saturated, nonplastic, very soft.	0.0	0.0	1/1/1/1	
	14		LEAN CLAY (CL): reddish yellow (5YR 6/8), fine grained, saturated, meduim plasticity, soft.	0.0	0.0	3/8/9/30	
	16			0.0	0.0	2/5/8/11	
	18			0.0	0.0	3/4/12/10	
	20						
	22						
	24						
	26		LEAN CLAY (CL): reddish yellow (5YR 6/8), fine grained, saturated, medium plasticity, soft.	0.0	0.0	2/8/11/13	

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 156-B02

DRILLING LOG

HOLE NO. 156-B02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Chritopher D. Larson

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
	30		LEAN CLAY (CL): reddish yellow (5YR 6/8), fine grained, saturated, medium plasticity, soft.	0.0	0.0	2/5/7/8	
	32		SILT (ML): reddish yellow (5YR 6/8), saturated, nonplastic, soft.				
	34		FAT CLAY (CH): reddish yellow (5YR 6/8), fine grained, saturated, medium plasticity, soft.				
	36		SILTY SAND (SM): yellowish brown (10YR), fine grained, saturated, low plasticity, soft.	0.0	0.0	2/1/6/9	
	38						
	40			0.0	0.0	7/4/13	156-B02-02-01
	42		Total Depth = 42.0 ft.				
	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 156-B02

DRILLING LOG

HOLE NO.	156-B03
SHEET 1 OF 3 SHEETS	

1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=665582.63; Northing=545340.21
9. SURFACE ELEVATION	
10. DATE STARTED	12/1/93
11. DATE COMPLETED	12/1/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3.2 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	42.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
Metals	
SW8080	
SW9012	
SW8270	
SW8015	
SW8150	
E376.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellow (10YR 7/8), fine grained, moist, nonplastic, loose.			1/1/3/1	
	2		LEAN CLAY (CL): red (5YR 4/6), with very fine grained sand, moist, medium plasticity, firm.			4/4/2/4	
			Water table at 3.2 ft.				
	4					2/2/4/3	156-B03-01-01
	6					2/3/4/4	
	8					4/3/2/2	

0 2 4 6 8 10

DRILLING LOG

1. COMPANY NAME	2. INSPECTOR	HOLE NO.
Radian Corporation	David R. Robbins	156-B03
		SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			LEAN CLAY (CL) as above.				
			Slight [redacted] staining.			1/1/1/1	
	12						
						3/2/2/3	
	14						
						2/3/4/3	156-B03-02-01
	16		FAT CLAY (CH): dark red (2.5YR 4/8), wet, high plasticity, soft.				
						4/4/3/2	
	18						
						2/5/3/2	
	20						
						5/5/4/3	
	22						
						7/4/3/2	
	24						
						4/7/2/8	
	26		POORLY GRADED SAND (SP): strong brown (7.5YR 5/6), medium grained, saturated, nonplastic, loose.				
						4/6/4/4	

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 156-B03

DRILLING LOG

HOLE NO. 156-B03

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.			5/7/4/3	
	30		With clay layers (.25 in. to 1 in. thick)			3/7/6/4	
	32					7/8/8/5	
	34					8/11/14/22	
			FAT CLAY (CH): pale olive (5Y 6/4), fine grained, with large gypsum crystals, wet, high plasticity, firm.				
	36					9/8/19/21	
	38					11/14/8/12	
	40					7/10/9/14	156-B03-03-01
			SILTY SAND (SM): pale olive (5Y 6/4), fine grained, wet, nonplastic, medium dense.				
	42		Total Depth = 42.0 ft.				
	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 156-B03

DRILLING LOG

HOLE NO.	156-B04
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 3 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=665630.59; Northing=545395.53
9. SURFACE ELEVATION	
10. DATE STARTED	12/1/93
11. DATE COMPLETED	12/1/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.8 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	42.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
Metals	
SW8080	
SW9012	
SW8270	
SW8015	
SW8150	
E376.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellow (10YR 7/8), very fine grained, moist, nonplastic, very loose.			1/2/2/1	
	2		SILTY SAND (SM): yellowish brown (10YR 5/8), fine grained, slightly clayey near base, moist, nonplastic, loose.			2/3/3/3	
	4		FAT CLAY (CH): [redacted] (5YR 4/6), with [redacted] ft., moist, medium [redacted] at 4.8 ft.			2/2/3/4	156-B04-01-01
	6					4/3/4/5	
	8					5/7/3/5	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 156-B04

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			FAT CLAY (CH), as above.			4/8/3/5	
	12					2/4/4/2	
	14					3/2/4/2	
	16					5/3/2/2	
	18					5/6/4/3	
	20		Trace coarse gypsum crystals.			4/6/3/3	
	22					7/4/2/3	
	24					9/7/11/8	
	26					6/5/5/6	

DRILLING LOG

HOLE NO. 156-B04

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			FAT CLAY (CH) as above.			7/11/12/17	
	30		FAT CLAY (CH): strong brown (7.5YR 4/6) with fine grained sand, sa[redacted] [redacted], high[redacted]			9/13/14/11	156-B04-02-01
	32					10/9/12/11	
	34					11/20/19/26	
	36		FAT CLAY (CH): pale olive (5Y 6/4), fine grained, with large gypsum crystals, wet, high plasticity, stiff to hard			11/9/21/27	
	38					9/11/8/9	
	40					8/7/6/6	156-B04-03-01
	42		Total Depth = 42.0 ft.				
	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 156-B04

DRILLING LOG

HOLE NO.	164-B01
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=675562.03; Northing=550227.79
9. SURFACE ELEVATION	
10. DATE STARTED	11/21/93
11. DATE COMPLETED	11/21/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	13 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	14.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
Metals	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (7.5YR 7/6), fine grained, moist, nonplastic, loose.	1.6	0.5	3/7/10/12	164-B01-01-01
	2			0.0	0.5	3/14/20/22	
	4		Strong brown (7.5YR 5/8), wet.	0.0	0.5	27/23/31/50	164-B01-02-01
	6		CLAYEY SAND (SC): yellowish red (5YR 5/6), fine grained, with fine gypsum crystals, wet, medium plasticity, dense.	0.0	0.0	16/15/29/50	
	8		CLAYEY SAND (SC): brown (10YR 8/2), fine grained, moist, nonplastic, dense.	0.0	0.0	17/23/25/37	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 164-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.	0.0	0.0	35/50+	
	12						
▼			POORLY GRADED SAND (SP): yellowish red (5YR 5/6), fine grained, wet to saturated, nonplastic, very dense. Water table at 13.0 ft.	0.0	0.0	19/26/50+	164-B01-03-01
	14		Total Depth = 14.0 ft.				
	16						
	18						
	20						
	22						
	24						
	26						

PROJECT: Table 2 - RFI

HOLE NO.: 164-B01

DRILLING LOG

HOLE NO.	164-B02
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=675415.82; Northing=550169.34
9. SURFACE ELEVATION	
10. DATE STARTED	11/21/93
11. DATE COMPLETED	11/21/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	14.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	13 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; E418.1; Metals; SW8270
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark grayish brown (10YR 4/2), fine grained, with root inclusions and trace fine gravel, moist, nonplastic, loose.	0.0	0.0	2/5/13/50	164-B02-01-01
	2		POORLY GRADED SAND (SP): very pale brown (10YR 7/4), very fine grained, with silt, moist, nonplastic, very dense.	0.0	0.0	50+	
	4		SILTY SAND (SM): reddish yellow (7.6YR 6/6), fine grained, moist, nonplastic, very dense.	0.0	0.0	13/21/31/50+	164-B02-02-01
	6			0.0	0.0	21/25/31/50+	
	8		CLAYEY SAND (SC): yellowish red (5YR 5/6), fine grained, with fine gypsum crystals, moist, medium plasticity, very dense.	0.0	0.0	13/17/25/50+	

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	1. COMPANY NAME	2. INSPECTOR	SHEET 2
164-B02	Radian Corporation	Christopher D. Larson	OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.				
			POORLY GRADED SAND (SP): yellowish red (5YR 5/6), fine grained, wet, nonplastic, very dense.	0.0	0.0	17/20/20/30	
	12						
			Water table at 13.0 ft.				
			CLAYEY SAND (SC): yellowish red (5YR 5/5), fine grained, with fine gypsum crystals, saturated, medium plasticity, very dense.	0.0	0.0	15/24/30/44	164-B02-03-01
	14		Total Depth = 14.0 ft.				
	16						
	18						
	20						
	22						
	24						
	26						

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 164-B02

DRILLING LOG

HOLE NO.	179-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685215.84; Northing=530607.53
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	8.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	7.8 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8270	
SW6010	
SW7421	
SW9045	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, with root inclusions, moist, nonplastic, loose.	0.0	0.0	1/3/7/5	179-B01-01-01
	2		SILTY SAND (SM): pale brown (10YR 7/4), fine grained, moist, nonplastic, loose.	0.0	0.0	8/12/21/27	179-B01-02-01
	4			0.0	0.0	14/38/50+	179-B01-03-01
	6		SANDY SILT (ML): yellowish red (5YR 4/6), with fine grained sand, moist, nonplastic, hard. SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, moist to wet, nonplastic, loose.	0.0	0.0	9/20/23/24	179-B01-04-01
▼	8		Water table at 7.8 ft. Total Depth = 8.00 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	179-B02
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685162.60; Northing=530600.29
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	8.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	6 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270; SW6010; SW7421
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, with root inclusions, moist, nonplastic, medium dense to dense.	0.0	0.5	2/5/7/10	179-B02-01-01
	2			0.0	1.2	17/34/38/50+	179-B02-02-01
	4			0.0	1.2	13/24/24/24	179-B02-03-01
▼	6		SILTY SAND (SM): yellowish brown (2.5Y 6/3), fine grained, wet to saturated, nonplastic, medium dense. Water table at 6 ft.	0.0	1.2	9/37/26/14	179-B02-04-01
	8		POORLY GRADED SAND (SP): yellowish brown (10YR 5/6), fine grained, with clay, saturated, low plasticity, medium dense. Total Depth = 8.00 ft.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	179-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685107.74; Northing=530611.77
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	6 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	8.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270; SW6010; SW7421
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
	0		SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, with root inclusions, moist, nonplastic, loose.	0.0	2.5	WH/1/2/3	179-B03-01-01
	2			0.0	1.8	3/3/10/26	179-B03-02-01
	4		SILTY SAND (SM): pale brown (10YR 7/4), fine grained, with caliche inclusions, moist to wet, nonplastic, dense.	0.0	1.5	50+	179-B03-03-01
▼	6		Water table at 6.0 ft. SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, saturated, nonplastic, loose.	0.0	2.2	6/7/7/4	179-B03-04-01
	8		Total Depth = 8.0 ft.				
	10						

DRILLING LOG

HOLE NO.	179-B04
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=684934.63; Northing=530613.03
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	3.6 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270; SW6010; SW7421
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, with root inclusions, moist, nonplastic, loose.	0.0	0.0	1/2/6/5	179-B04-01-01
	2		SILTY SAND (SM): pale brown (10YR 8/4), fine grained, moist to wet, nonplastic, loose.	0.0	0.0	6/12/12/16	179-B04-02-01
	4		Water table at 3.6 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 179-B05		
1. COMPANY NAME: Radian Corporation	2. DRILLING SUBCONTRACTOR: Southwest Engineering, Inc.	SHEET 1 OF 2 SHEETS
3. PROJECT: Table 2 - RFI	4. LOCATION: Holloman AFB	
5. NAME OF DRILLER: Alex Sanchez	6. MANUFACTURERS DESIGNATION OF DRILL: CME 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer	8. HOLE LOCATION: Easting=685276.17; Northing=530609.26	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/17/93	11. DATE COMPLETED: 11/17/93
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 12.2 ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 14.00 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
No			NA

20. SAMPLES FOR CHEMICAL ANALYSIS						21. TOTAL CORE REC.
Yes	SW8270	SW6010				NA
	SW7421	SW9045				

22. DISPOSITION OF HOLE	GROUTED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	Grout			David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, with root inclusions, moist, nonplastic, loose.	0.0	0.0	2/4/5/3	179-B05-01-01
	2			0.0	0.0	3/3/5/12	179-B05-02-01
	4		SILTY SAND (SM): pale brown (10YR 7/4), fine grained, moist, nonplastic, dense.	0.0	0.0	21/27/33/50+	179-B05-03-01
	6		POORLY GRADED SAND (SP): yellowish brown (2.5Y 6/3), fine to medium grained, with fine gypsum crystals, moist, nonplastic, dense.	0.0	0.0	27/31/33/41	
	8		SILTY SAND (SM): yellowish brown (10YR 5/6), fine grained, moist, nonplastic, dense.	0.0	0.0	9/12/24/30	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 179-B05

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	30/27/30/26	
	12		CLAYEY SAND (SC): yellowish red (5YR 4/6), fine grained, wet, low plasticity, medium dense. Water table at 12.2 ft.	0.0	0.0	12/11/29/28	179-B05-04-01
	14		Total Depth = 14.0 ft.				
	16						
	18						
	20						
	22						
	24						
	26						

PROJECT: Table 2 - RFI

HOLE NO.: 179-B05

DRILLING LOG

HOLE NO.	179-B06
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685239.15; Northing=530883.32
9. SURFACE ELEVATION	
10. DATE STARTED	11/17/93
11. DATE COMPLETED	11/17/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	13.2 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	14.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8270, SW6010, SW7421, SW9045
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 6/4), fine grained, with fine gravel and root inclusions, dry, nonplastic, loose.	0.0	0.0	WH/1/2/2	179-B06-01-01
	2		SILTY SAND (SM): pale brown (10YR 7/4), fine grained, with root and caliche inclusions, dry, nonplastic, medium dense.	0.0	0.0	2/4/12/30	179-B06-02-01
	4			0.0	0.0	19/34/30/30	179-B06-03-01
	6		SILTY SNAD (SM): strong brown (7.5YR 4/6), fine grained, with fine gypsum crystals, dry, nonplastic, dense.				
			POORLY GRADED SAND (SP): pale yellow (2.5Y 8/2), fine grained, mottled with fine grained white sand, moist to wet, nonplastic, dense.	0.0	0.0	10/22/40/50+	
	8			0.0	0.0	17/18/26/50+	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 179-B06

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.	0.0	0.0	18/22/30/50+	
	12			0.0	0.0	20/25/31/50+	179-B06-04-01
▼			Water table at 13.2 ft.				
	14		Total Depth = 14.0 ft.				
	16						
	18						
	20						
	22						
	24						
	26						

PROJECT: Table 2 – RFI

HOLE NO.: 179-B06

DRILLING LOG

HOLE NO.	179-B07
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685168.93; Northing=530819.26
9. SURFACE ELEVATION	
10. DATE STARTED	11/18/93
11. DATE COMPLETED	11/18/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	15 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	16.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8270, SW6010, SW7421, SW9045
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 6/4), fine grained, with root inclusions, dry, nonplastic, loose.	0.0	0.0	WH/2/8/7	
	2		SILTY SAND (SM): pale brown (10YR 7/4), fine grained, dry, nonplastic, loose.	0.0	1.3	2/5/6/5	
	4			0.0	0.0	2/3/8/4	179-B07-01-01
	6		SILTY SAND (SM): strong brown (7.5YR 5/6), fine grained, dry, nonplastic, loose.	0.0	0.0	3/8/12/19	179-B07-02-01
	8		POORLY GRADED SAND (SP): pale yellow (2.5Y 7/2), fine grained, moist, nonplastic, medium dense.	0.0	0.0	22/35/50+	179-B07-03-01

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 179-B07

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.	0.0	0.0	18/23/27/50+	
	12			0.0	0.0	18/50+	
	14		CLAYEY SAND (SC): light gray (2.5Y 7/2), fine grained, moist, nonplastic, dense.				
			POORLY GRADED SAND (SP): fine grained, with slight iron staining, wet, nonplastic, dense. Water table at 15.0 ft.	0.0	0.0	19/22/50+	179-B07-04-01
	16		Total Depth = 16.0 ft.				
	18						
	20						
	22						
	24						
	26						

DRILLING LOG

HOLE NO.	179-B08
SHEET 1 OF 2 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685085.38; Northing=530726.74
9. SURFACE ELEVATION	
10. DATE STARTED	11/18/93
11. DATE COMPLETED	11/18/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	10.2 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	12.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes; SW8270, SW6010, SW7421
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): yellowish brown (10YR 6/4), fine grained, with root inclusions, dry, medium dense.	0.0	0.0	2/6/13/11	179-B08-01-01
	2			0.0	0.0	5/11/5/5	179-B08-02-01
	4			0.0	2.3	3/5/8/9	179-B08-03-01
	6		SILTY SAND (SM): reddish brown (5YR 5/4), fine grained, moist, nonplastic, dense.	0.0	2.3	17/19/21/27	
	8			0.0	2.3	26/30/36/50+	

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 179-B08

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			Water table at 10.2 ft.				
			SILTY SAND (SM) as above.	0.0	1.3	26/30/30/36	179-B08-04-01
	12		Total Depth = 12.0 ft.				
	14						
	16						
	18						
	20						
	22						
	24						
	26						

DRILLING LOG

HOLE NO.	181-B01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 2 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=685062.69; Northing=530246.78
9. SURFACE ELEVATION	
10. DATE STARTED	11/16/93
11. DATE COMPLETED	11/16/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	NONE
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	16.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8270	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, yellowish brown (10YR 5/6), medium grained, with root inclusions, moist, nonplastic, loose.	0.0	0.0	3/1/1/1	
	2	Fill		0.0	5.2	2/1/2/2	
	4	Fill		2.2	14.1	5/6/9/50+	
	6		Auger refusal at base of concrete sump. Offset boring 1.5 ft. east and continued drilling. SILTY SAND (SM): pale yellow (2.5Y 8/4), fine grained, with fine gypsum crystals, moist, nonplastic, loose.	0.0	0.0	3/3/6/7	181-B01-01-01
	8			0.0	0.0	18/25/38/50+	

0 2 4 6 8 10

PROJECT: Table 2 - RFI HOLE NO.: 181-B01

DRILLING LOG

HOLE NO. 181-B01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	0.0	0.0	23/18/26/30	
	12		CLAYEY SAND (SC): brownish gray (2.5Y 6/2), fine grained, with caliche inclusions, wet, low plasticity, dense.	0.0	0.0	12/22/26/34	
	14			0.0	0.0	15/27/21/34	
	16		Total Depth = 16.00 ft.				
	18						
	20						
	22						
	24						
	26						

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 181-B01

DRILLING LOG

HOLE NO. [redacted]		
1. COMPANY NAME: Radian Corporation	2. DRILLING SUBCONTRACTOR: Southwest Engineering, Inc.	SHEET 1 OF 1 SHEETS
3. PROJECT: Table 2 - RFI	4. LOCATION: Holloman AFB	
5. NAME OF DRILLER: Alex Sanchez	6. MANUFACTURERS DESIGNATION OF DRILL: CME 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer	8. HOLE LOCATION: Easting=685046.65; Northing=530389.74	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/17/93	11. DATE COMPLETED: 11/17/93
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 3 ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 10.00 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
No			NA

20. SAMPLES FOR CHEMICAL ANALYSIS						21. TOTAL CORE REC.
Yes	SW8270					NA

22. DISPOSITION OF HOLE	GROUTED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	Grout			David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): dark brown (7.5YR3/2), fine grained, contains organic matter, moist to wet, nonplastic, very loose.		0.0	WH	
	2				1.8	WH	
▼			Water table at 3.0 ft.				
	4					WH	
	6		LEAN CLAY (CL): brown yellow (10YR6/6), saturated with petroleum, with strong black staining, wet, high plasticity, very soft.			2/3/3/2	
	8				[redacted]	3/2/2/2	[redacted]
			Total Depth = 10.00 ft.				

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 181-B02

DRILLING LOG

HOLE NO.	129-MW-01
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 3 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD Split spoon (ASTM D1586-84) 3" ID/2" ID 140 lb. drop-hammer
8. HOLE LOCATION	Easting=546111.40; Northing=684304.30
9. SURFACE ELEVATION	4099.97 ft. MSL
10. DATE STARTED	11/6/93
11. DATE COMPLETED	11/6/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	27.5ft/30min
14. TOTAL DEPTH OF HOLE	34.25 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	No
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	
MONITORING WELL	X
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): reddish yellow (7.5YR 6/6), fine grained, dry to moist, nonplastic, medium dense.				
4098.0	2						
4096.0	4						
4094.0	6			0.0	0.0	6/5/5/6	
4092.0	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: 129-MW-01

DRILLING LOG

HOLE NO. 129-MW-01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC): yellowish red (5YR 4/6), fine grained, mottled with fine grained white sand, moist, nonplastic, very dense.	1.1	1.2	7/14/23/23	
4088.0	12						
4086.0	14						
			With fine gypsum crystals.				
4084.0	16			0.8	0.7	8/13/17/24	
4082.0	18						
4080.0	20						
			SILTY SAND (SM): very pale brown (10YR 7/3), fine grained, moist, nonplastic, very dense.	1.0	1.2	10/25/32/27	
4078.0	22						
4076.0	24		SILTY SAND (SM): reddish brown (5YR 5/4), fine grained, wet, low plasticity, very dense.	0.7	1.1	8/22/34/25	
4074.0	26		SILTY SAND (SM): very pale brown (10YR 7/3), fine grained, wet to saturated, nonplastic, very dense.	1.2	1.7	9/25/32/31	
			Water table at 27.5 ft.	1.8	1.2	8/22/27/29	

DRILLING LOG

HOLE NO. 129-MW-01

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM) as above.	1.8	1.2	8/22/27/29	
4070.0	30			1.0	1.2	7/26/34/31	
4068.0	32			1.2	1.2	9/25/25/32	
4066.0	34			1.7	1.2	8/23/30/34	
			Total Depth = 34.25 ft.				
4064.0	36						
4062.0	38						
4060.0	40						
4058.0	42						
4056.0	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 129-MW-01

DRILLING LOG

HOLE NO.	129-MW-02
SHEET 1 OF 3 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Continious Core Sampler; 3" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=546174.20; Northing=683820.73
9. SURFACE ELEVATION	4098.44 ft. MSL
10. DATE STARTED	11/6/93
11. DATE COMPLETED	11/6/93
12. OVERBURDEN THICKNESS	NA
13. DEPTH DRILLED INTO ROCK	NA
14. TOTAL DEPTH OF HOLE	33.00 ft.
15. DEPTH GROUNDWATER ENCOUNTERED	25 ft.
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	25ft/45min
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	Yes
DISTURBED	X
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	No
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	
MONITORING WELL	X
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SANDY SILT (ML): brownish yellow (10YR 6/6), with fine grained sand, with trace caliche inclusions, dry, nonplastic, loose.				
4096.4	2						
			SANDY SILT (ML): very pale brown (10YR 7/4), with fine grained sand, moist, nonplastic, loose.				
4094.4	4						
			SANDY SILT (ML): strong brown (7.5YR 5/6), with fine grained sand, moist, nonplastic, medium dense.				
4092.4	6		SANDY SILT (ML): very pale brown (7.5YR 5/6), with fine grained sand, moist, nonplastic, medium dense.				
4090.4	8						
			POORLY GRADED SAND (SP): brownish yellow (10YR 5/6), fine grained, moist, nonplastic, medium dense.				

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-MW-02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): light gray (2.5YR 7/2), fine grained, moist, nonplastic, dense.				
4086.4	12		SILTY SAND (SM): yellowish red (5YR 5/8), fine to very fine grained, moist, nonplastic, dense.				
4084.4	14						
4082.4	16						
4080.4	18						
4078.4	20						
4076.4	22		CLAYEY SAND (SC): yellowish brown (2.5Y 6/3), fine grained, with fine gypsum crystals, moist, nonplastic, dense.				
4074.4	24						
4072.4	26						

10 12 14 16 18 20 22 24 26 28

PROJECT: Table 2 - RFI

HOLE NO.: 129-MW-02

DRILLING LOG

HOLE NO. 129-MW-02

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			CLAYEY SAND (SC) as above.				
4068.4	30						
			SANDY CLAY (CL): reddish brown (2.5YR 4/4), with fine grained sand, wet, medium plasticity, dense.				
4066.4	32						
			Total Depth = 33.00 ft.				
4064.4	34						
4062.4	36						
4060.4	38						
4058.4	40						
4056.4	42						
4054.4	44						

28 30 32 34 36 38 40 42 44 46

DRILLING LOG

HOLE NO.	129-MW-03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 3 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Alex Sanchez
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=546704.35; Northing=684284.87
9. SURFACE ELEVATION	4109.47 ft. MSL
10. DATE STARTED	11/20/93
11. DATE COMPLETED	11/20/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	26.2 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	26.5ft/30min
14. TOTAL DEPTH OF HOLE	35.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	No
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	
MONITORING WELL	X
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	David R. Robbins

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SANDY SILT (ML): brownish yellow (10YR 6/6), with fine grained sand, dry, nonplastic, soft.				
4107.4	2						
4105.4	4		SANDY SILT (ML): very pale brown (10YR 7/4), with fine grained sand, moist, nonplastic, soft.				
4103.4	6		SILTY SAND (SM): reddish yellow (7.5YR 7/6), with fine grained sand, moist, nonplastic, loose.				
4101.4	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	
129-MW-03	

1. COMPANY NAME	2. INSPECTOR	SHEET 2
Radian Corporation	David R. Robbins	OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SANDY SILT (ML): light gray (2.5YR 7/2), with fine grained sand, with fine gypsum crystals, moist, nonplastic, soft.				
4097.4	12						
4095.4	14		CLAYEY SAND (SC): reddish brown (2.5YR 4/4), fine grained, with medium gypsum crystals, moist, low plasticity, loose.				
4093.4	16						
4091.4	18						
4089.4	20		SILTY SAND (SM): light brown (7.5YR 6/3), very fine grained, with trace medium gypsum crystals, moist, nonplastic, loose.				
4087.4	22						
4085.4	24		POORLY GRADED SAND (SP): brown (7.5YR 5/4), fine grained, moist, nonplastic, soft.				
4083.4	26		SILTY SAND (SM): reddish yellow (7.5YR 6/6), fine grained, with trace medium gypsum crystals, saturated, nonplastic, loose. Water table at 26.2 ft.				

DRILLING LOG

HOLE NO. 129-MW-03

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: David R. Robbins

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP): white (10YR 8/1), fine to medium grained, with medium gypsum crystals, saturated, dense.				
4079.4	30						
			CLAYEY SAND (SC): light yellowish brown (10YR 6/4), fine grained, saturated, low plasticity, dense.				
4077.4	32						
4075.4	34						
			Total Depth = 35.00 ft.				
4073.4	36						
4071.4	38						
4069.4	40						
4067.4	42						
4065.4	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 129-MW-03

DRILLING LOG

HOLE NO.	129-MW-04
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 3 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=545618.32; Northing=684169.60
9. SURFACE ELEVATION	4101.82 ft. MSL
10. DATE STARTED	11/20/93
11. DATE COMPLETED	11/20/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	25.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	25.5ft/30min
14. TOTAL DEPTH OF HOLE	33.60 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No; DISTURBED: ; UNDISTURBED:
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	No
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical; GROUTED: ; MONITORING WELL: X; OTHERS (SPECIFY):
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
4099.8	2						
4097.8	4						
4095.8	6		SILTY SAND (SM): very pale brown (10YR 8/4), fine grained, dry nonplastic, meduim dense.	0.0	0.0	8/12/14/16	
4093.8	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO. 129-MW-04

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 2 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			SILTY SAND (SM): light reddish brown (5YR 6/6), fine grained, mottled with pale yellow (2.5YR 8/3), dry nonplastic, very dense.	0.0	0.0	11/17/42/35	
4089.8	12						
4087.8	14						
			POORLY GRADED SAND (SP): pale yellow (2.5Y 8/2), fine grained, with silt, moist, nonplastic, very dense.	0.0	0.0	29/34/33/28	
4085.8	16						
4083.8	18						
4081.8	20		With trace caliche.	0.0	0.0	29/50+	
4079.8	22		Wet.	0.0	0.0	12/33/28/40	
4077.8	24			0.0	0.0	26/31/23/36	
			Water table at 25.5 ft.				
4075.8	26			0.0	0.0	17/28/50+	

10 12 14 16 18 20 22 24 26 28

DRILLING LOG

HOLE NO. 129-MW-04

1. COMPANY NAME: Radian Corporation

2. INSPECTOR: Christopher D. Larson

SHEET 3 OF 3 SHEETS

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
			POORLY GRADED SAND (SP) as above.	0.0	0.0	18/31/50+	
4071.8	30			0.0	0.0	21/29/50+	
4069.8	32						
			Total Depth = 33.60 ft.				
4067.8	34						
4065.8	36						
4063.8	38						
4061.8	40						
4059.8	42						
4057.8	44						

28 30 32 34 36 38 40 42 44 46

PROJECT: Table 2 - RFI

HOLE NO.: 129-MW-04

DRILLING LOG

HOLE NO.	AOC-A-B01
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669358.48; Northing=553934.64
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
SW8080	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 4/6), fine grained, with fine gravel, slight petroleum odor, nonplastic, loose.	0.0	1.2	20/10/8/5	AOC-A-B01-01-01
			FILL: concrete slab, light gray (N7/).				
	2		SILTY SAND (SM): dark grey (2.5YR 4/1), fine grained, moderate petroleum odor and staining, moist to wet, low plasticity, loose.	6.7	273.0	50+	AOC-A-B01-02-01
	4			8.2	20.3	4/1/1/6	
	6		Total Depth = 6.00 ft.				
	8						

0 2 4 6 8 10

PROJECT: Table 2 - RFI

HOLE NO.: AOC-A-B01

DRILLING LOG

HOLE NO.	AOC-A-B02
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669366.52; Northing=553943.28
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; E418.1; SW8080
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
	0	Fill	FILL: silty sand, strong brown (7.5YR 4/6), fine grained, with fine gravel, moist, nonplastic, loose.	0.0	0.0	7/10/6/2	AOC-A-B02-01-01
	2		FILL: concrete slab, light gray (N7/).				
			SILTY SAND (SM): strong brown (7.5YR 4/6), fine grained, gray staining, moderate petroleum odor, wet, low plasticity, loose.	0.0	0.0	50+	
▼	4		Water table at 4.0 ft.	0.0	41.0	3/4/4/2	AOC-A-B02-02-01
	6		Total Depth = 6.0 ft.				
	8						
	10						

DRILLING LOG

HOLE NO.	AOC-A-B03
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669374.27; Northing=553952.10
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	E418.1
SW8080	SW8270
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL; silty sand, strong brown (7.5YR 4/6), fine grained, with fine gravel and wood inclusions, moist to wet, nonplastic, loose.	0.0	3.0	3/4/4/2	AOC-A-B03-01-01
	2		FILL: concrete slab, light gray (N7/).				
			SILTY SAND (SM): gray (2.5YR 5/1), fine grained, moderate petroleum odor, wet, low plasticity, very loose.	41.0	75.2	1/1/0/2	AOC-A-B03-02-01
▼	4		Total Depth = 4.00 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	AOC-A-B04
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669384.93; Northing=553964.04
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.5 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	6.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 5/6), fine grained, with fine gravel, dry, nonplastic, loose.	0.0	0.0	5/8/8/6	AOC-A-B04-01-01
	2		FILL: concrete slab, light gray (N7/).				
			SILTY SAND (SM): yellowish red (5TR 5/6), fine grained, wet, nonplastic, medium dense.			50+	
	4		Water table at 4.5 ft.	0.0	0.0	4/9/13/25	AOC-A-B04-02-01
	6		Total Depth = 6.0 ft.				
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	AOC-A-B05
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669340.35; Northing=553945.57
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240
	E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 5/6), fine grained, with fine gravel, dry to moist, nonplastic, loose.	0.0	0.0	5/12/7/8	AOC-A-B05-01-01
	2		FILL: concrete slab, light gray (N7/).				
			SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, wet, nonplastic, loose.	0.0	0.0	4/4/2/2	AOC-A-B05-02-01
▼	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

0 2 4 6 8 10

DRILLING LOG

HOLE NO.	AOC-A-B06
SHEET 1 OF 1 SHEETS	
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669349.51; Northing=553954.49
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
	SW8240; E418.1
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 5/6), fine grained, with fine gravel, dry, nonplastic, medium dense.	0.0	0.0	5/9/11/50+	AOC-A-B06-01-01
	2		FILL: concrete slab, light gray (N7/).				
			SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, wet, nonplastic, loose.	0.0	0.0	7/10/6/2	AOC-A-B06-02-01
	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

DRILLING LOG

HOLE NO. AOC-A-B07		
1. COMPANY NAME: Radian Corporation	2. DRILLING SUBCONTRACTOR: Southwest Engineering, Inc.	SHEET 1 OF 1 SHEETS
3. PROJECT: Table 2 - RFI	4. LOCATION: Holloman AFB	
5. NAME OF DRILLER: Art Valtierra	6. MANUFACTURERS DESIGNATION OF DRILL: CME 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Hollow Stem Auger; 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84); 3" ID/2" ID; 140 lb. drop-hammer	8. HOLE LOCATION: Easting=669356.76; Northing=553964.12	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 11/9/93	11. DATE COMPLETED: 11/9/93
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 4.25 ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 6.00 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
No			NA

20. SAMPLES FOR CHEMICAL ANALYSIS						21. TOTAL CORE REC.
Yes	SW8240	SW8080				NA
	E418.1					

22. DISPOSITION OF HOLE	GROUTED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	Grout			Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 5/6), fine grained, with trace fine gravel, dry, nonplastic, medium dense.	0.0	0.0	5/13/13/50+	AOC-A-B07-01-01
	2		SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, wet, nonplastic, loose.	0.0	0.0	3/7/5/3	AOC-A-B07-02-01
	4		Water table at 4.25 ft	0.0	0.0	3/9/4/2	
	6		Total Depth = 6.0 ft.				
	8						

DRILLING LOG

HOLE NO.	AOC-A-B08
1. COMPANY NAME	Radian Corporation
2. DRILLING SUBCONTRACTOR	Southwest Engineering, Inc.
SHEET 1 OF 1 SHEETS	
3. PROJECT	Table 2 - RFI
4. LOCATION	Holloman AFB
5. NAME OF DRILLER	Art Valtierra
6. MANUFACTURERS DESIGNATION OF DRILL	CME 55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Hollow Stem Auger 3.75" ID; 8.0" OD; Split spoon (ASTM D1586-84) 3" ID/2" ID; 140 lb. drop-hammer
8. HOLE LOCATION	Easting=669371.23; Northing=553976.94
9. SURFACE ELEVATION	
10. DATE STARTED	11/9/93
11. DATE COMPLETED	11/9/93
12. OVERBURDEN THICKNESS	NA
15. DEPTH GROUNDWATER ENCOUNTERED	4.0 ft.
13. DEPTH DRILLED INTO ROCK	NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	NA
14. TOTAL DEPTH OF HOLE	4.00 ft.
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	NA
18. GEOTECHNICAL SAMPLES	No
DISTURBED	
UNDISTURBED	
19. TOTAL NUMBER OF CORE BOXES	NA
20. SAMPLES FOR CHEMICAL ANALYSIS	Yes
SW8240	
E418.1	
21. TOTAL CORE REC.	NA
22. DISPOSITION OF HOLE	Vertical
GROUTED	Grout
MONITORING WELL	
OTHERS (SPECIFY)	
23. SIGNATURE OF INSPECTOR	Christopher D. Larson

ELEV. a	DEPTH b	GRAPHIC LOG c	DESCRIPTION OF MATERIALS d	SPLIT SPOON (ppm) e	HEAD-SPACE (ppm) f	BLOW COUNTS g	ANALYTICAL SAMPLE NO. h
		Fill	FILL: silty sand, strong brown (7.5YR 5/6), fine grained, with fine gravel, moist, nonplastic, loose.	0.0	0.0	7/6/6/5	AOC-A-B08-01-01
	2	Fill	SILTY SAND (SM): yellowish red (5YR 5/6), fine grained, moist to wet, nonplastic, loose.	0.0	0.0	3/1/1/2	AOC-A-B08-02-01
▼	4		Water table at 4.0 ft.				
			Total Depth = 4.0 ft.				
	6						
	8						

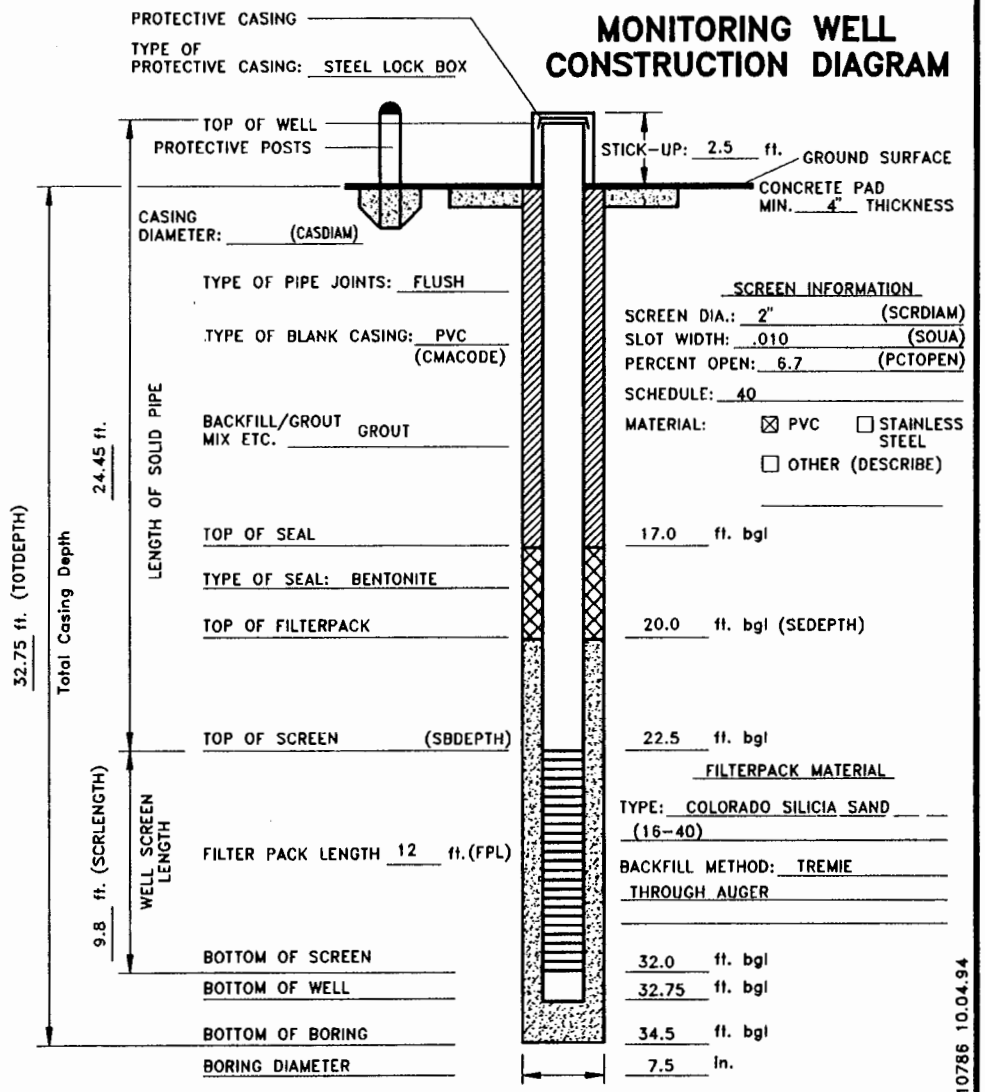
0 2 4 6 8 10

D.2

Well Construction Diagrams

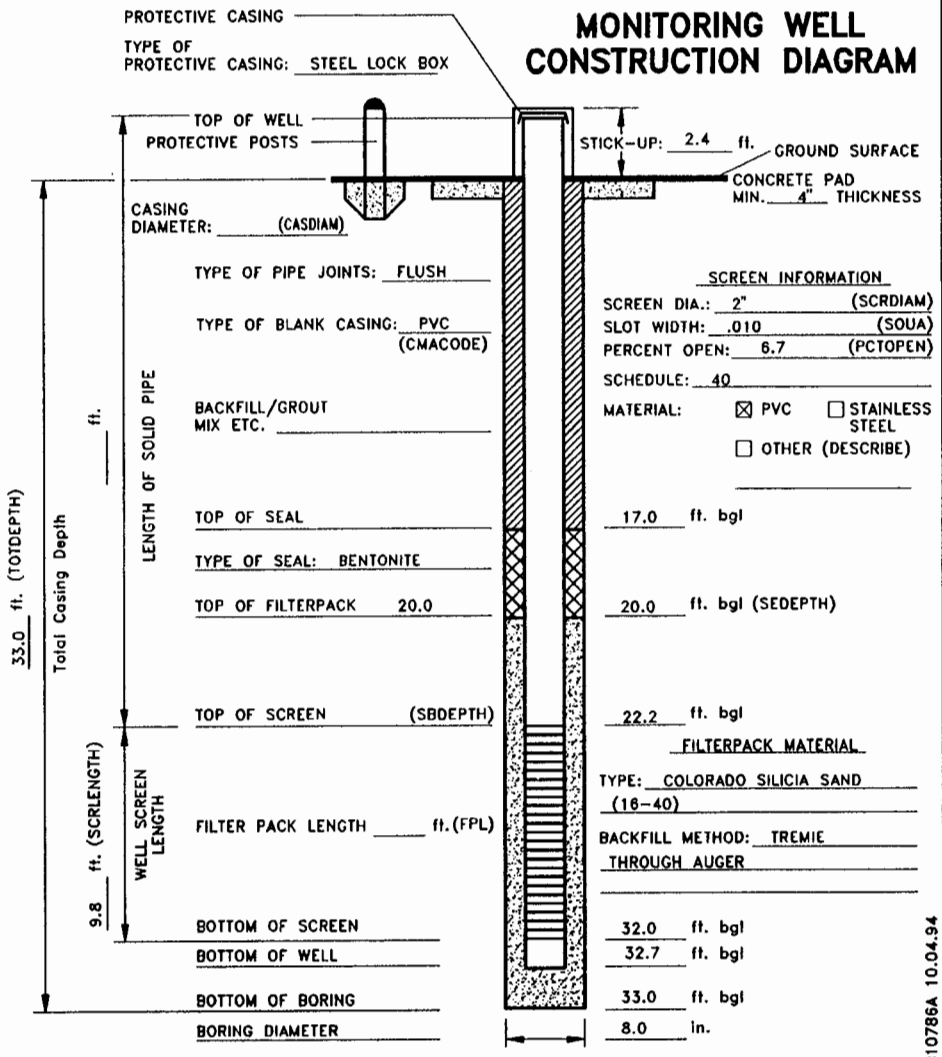
MONITORING WELL CONSTRUCTION DIAGRAM

Project (PROJID) HOLLOMAN TABLE 2 RFI	Well I.D. (LOCID) 129-MW-01
Well Owner (VVL WELCODE) USAF	Well Type (WL WTCODE) MONITOR WELL (MNW)
Installer ART VALTIERRA SEI	Date Started (INSDATE) 11/6/93 Date Completed 11/6/93
Location Coordinates: (NCORD) 546111.40 (North) (ECORD) 684304.30 (East)	
Elevation Top of Casing (MPELV) 4099.77	Completion Method (VVL WCMCODE) GRAVEL PACK W/ SCREEN (GS)
Sole Source Aquifer Code (VVL SAQCODE) N/A	
Drilling Method HOLLOW STEM AUGER	Completion Zone (VVL GZCODE) WATER TABLE AQUIFER (W)
Remarks (REMARKS)	



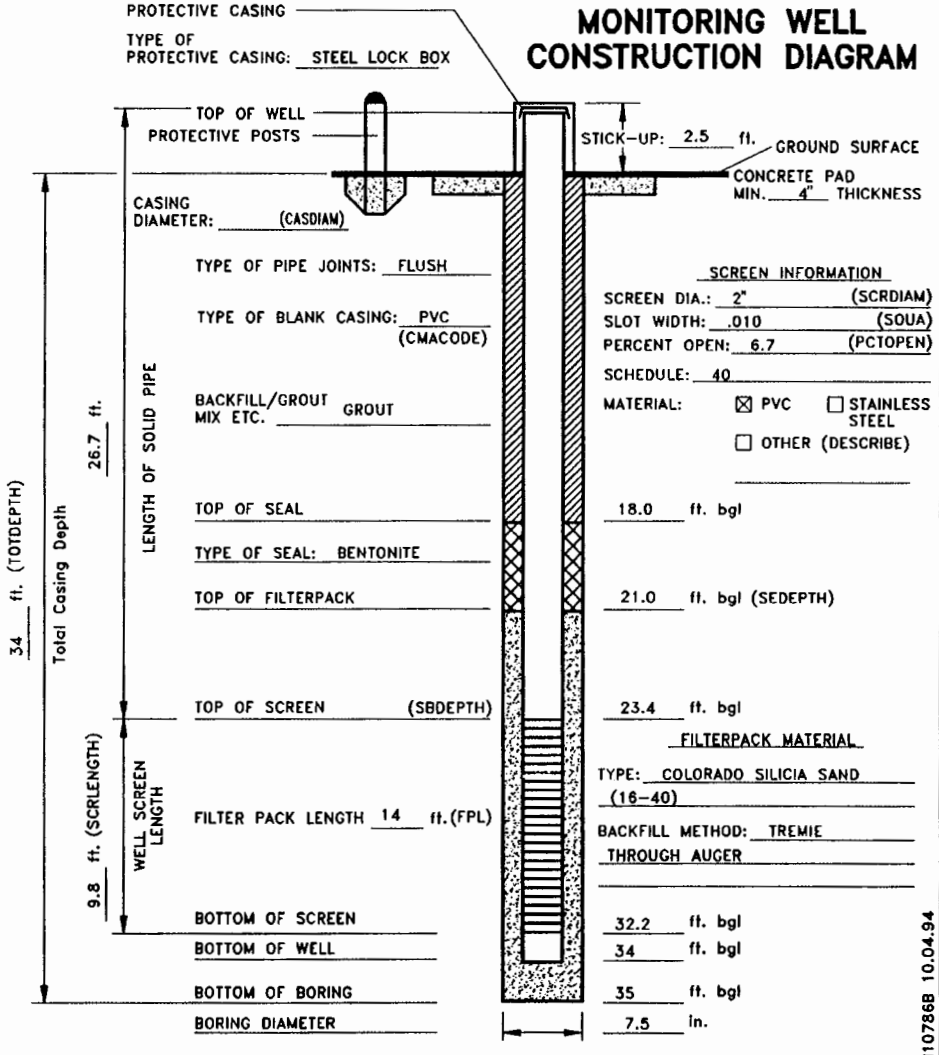
MONITORING WELL CONSTRUCTION DIAGRAM

Project (PROJID) HOLLOMAN TABLE 2 RFI	Well I.D. (LOCID) 129-MW-02
Well Owner (VVL WELCODE) USAF	Well Type (WL WTCODE) MONITOR WELL (MNW)
Installer DRR	Date Started (INSDATE) 11/6/93 / Date Completed 11/6/93
Location Coordinates: (NCORD) (North) 683820.73	(ECORD) (East) 546174.20
Elevation Top of Casing (MPELV) 4098.44	Completion Method (VVL WCMCODE) GRAVEL PACK W/ SCREEN (GS)
Sole Source Aquifer Code (VVL SAQCODE) N/A	
Drilling Method HOLOOW STEM AUGER	Completion Zone (VVL GZCODE) WATER TABLE AQUIFER (W)
Remarks (REMARKS)	



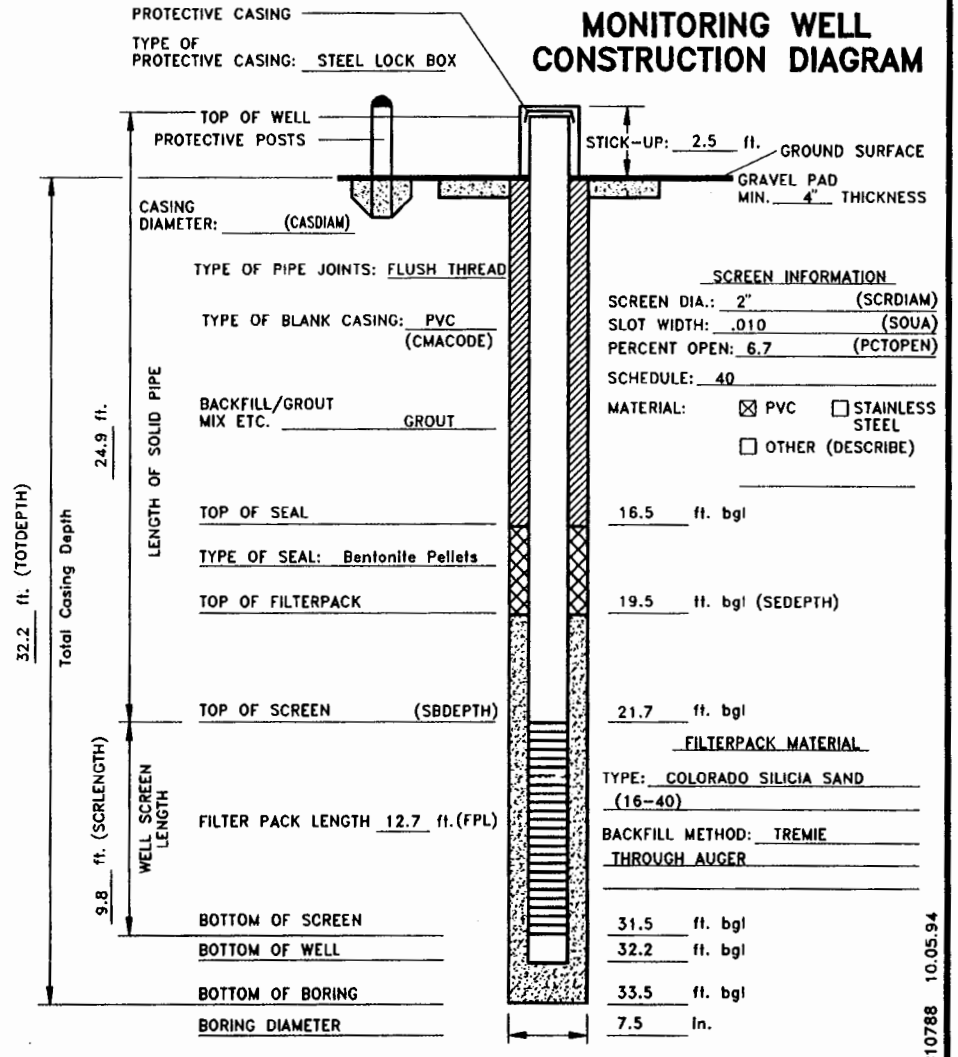
Project (PROJID) HOLLOMAN TABLE 2 RFI	Well I.D. (LOCID) 129-MW-03
Well Owner (VVL WELCODE) USAF	Well Type (WL WTCODE) MONITOR WELL (MNW)
Installer DRR	Date Started (INSDATE) 11/20/93 — Date Completed 11/20/93
Location Coordinates: (NCORD) 684284.87 (North)	(ECORD) 546704.35 (East)
Elevation Top of Casing (MPELV) 4109.47	Completion Method (VVL WCMCODE) GRAVEL PACK W/ SCREEN (GS)
Sole Source Aquifer Code (VVL SAQCODE) N/A	
Drilling Method HOLLOW STEM AUGER	Completion Zone (VVL GZCODE) WATER TABLE AQUIFER (W)
Remarks (REMARKS)	

MONITORING WELL CONSTRUCTION DIAGRAM



MONITORING WELL CONSTRUCTION DIAGRAM

Project (PROJID) HOLLOMAN TABLE 2 RFI	Well I.D. (LOCID) 129-MW-04
Well Owner (VVL WELCODE) USAF	Well Type (WL WTCODE) MONITOR WELL (MW)
Installer SEI	Date Started (INSDATE) 11/20/93 / Date Completed 11/20/93
Location Coordinates: (NCORD) 684169.60 (North)	(ECORD) 545618.32 (East)
Elevation Top of Casing (MPELV) 4101.82	Completion Method (VVL WCMCODE) GRAVEL PACK W/SCREEN (GS)
Sole Source Aquifer Code (VVL SAQCODE) –	
Drilling Method HOLLOW STEM AUGER (HS)	Completion Zone (VVL GZCODE) WATER TABLE AQUIFER (W)
Remarks (REMARKS)	



D.3

Well Development Logs and Photos

WELL DEVELOPMENT LOG

SHEET ____ OF ____

PROJECT (PROJ_ID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
Holloman AFB - Task 2 RFI	MW-129-01	12/4/93	9:00

PERFORMED BY (LOGCODE)	DEVELOPMENT METHOD	SURGE TECHNIQUE
RAD	Bailer	Bailer

WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL	LOWEST WATER LEVEL DURING DEVELOPMENT (PUMPDEP)
30.16	30.40	34.82	34.86	34.30

TOTAL VOL. REMOVED 30 GALLONS - TIME ELAPSED 9.0 HRS = PRODUCTION RATE (PRODRATE) 3.33 gal/hr

RECOVERY DEPTH (DEPWAT) N/A
RECOVERY TIME (RECTIME) N/A

Time	Cum. Volume (gal)	Water Quality Temp.	pH	Cond.	Turb.	Comments
0940	Initial	17.9	6.8	3.6		Brown Turbid
1000	5.0	17.5	6.5	5.1		"
1020	6.0	17.0	6.7	3.5		Light brown, Turbid
1040	8.0	17.6	6.5	3.7		Light brown, slightly turbid
1130	12.0	17.1	6.9	3.5		"
1400	15.0	17.6	7.0	3.5		"
1440	18.0	17.9	7.3	3.5		"
1520	20.0	17.7	7.3	3.5		Light brown, cloudy
1600	25.0	17.1	7.4	3.6		Cloudy
1640	30.0	17.0	7.4	3.6		Cloudy
Field Measurements:						Time

Remarks (Remarks)

well bailed dry after 20-25 minutes.

D1872B

WELL DEVELOPMENT LOG

SHEET ____ OF ____

PROJECT (PROJ_ID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
Holloman AFB-Task 2 RFI	MW-129-02	12/4/93	9:00

PERFORMED BY (LOGCODE)	DEVELOPMENT METHOD	SURGE TECHNIQUE
RAD	Bailer	Bailer

WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL	LOWEST WATER LEVEL DURING DEVELOPMENT (PUMPDEP)
27.86	28.46	31.20	35.00	34.3

TOTAL VOL. REMOVED 23 GALLONS – TIME ELAPSED 9.5 HRS = PRODUCTION RATE (PRODRATE) 2.40 gal/hr

RECOVERY DEPTH (DEPWAT) N/A
RECOVERY TIME (RECTIME) N/A

Time	Cum. Volume (gal)	Water Quality Temp.	pH	Cond.	Turb.	Comments
935	Initial	16.8	6.62	7.5		Brown, Turbid
1015	3.0	17.0	6.53	6.06		"
1045	4.0	17.0	6.49	5.9		"
1202	6.0	17.1	7.06	5.2		Light Brown, Turbid
1415	8.0	17.4	6.64	5.2		"
1514	12.0	17.5	7.51	5.2		"
1541	15.0	18.1	7.45	5.1		Light Brown, cloudy
1615	18.0	17.5	7.44	5.3		Cloudy
1700	23.0	16.3	7.41	5.1		Cloudy
Field Measurements:						Time

Remarks (Remarks)

Bailed dry after 15 minutes.

D1872B

WELL DEVELOPMENT LOG

SHEET ____ OF ____

PROJECT (PROJ_ID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
Holloman AFB Task 2 RFI	MW-129-03	12/4/94	1115

PERFORMED BY (LOGCODE)	DEVELOPMENT METHOD	SURGE TECHNIQUE
RAD	Bailer	Bailer

WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL	LOWEST WATER LEVEL DURING DEVELOPMENT (PUMPDEP)
31.82	33.50	35.96	36.00	35.5

TOTAL VOL. REMOVED 25 GALLONS – TIME ELAPSED 7.75 HRS = PRODUCTION RATE (PRODRATE) 3.23 gal/hr

RECOVERY DEPTH (DEPWAT) N/A
RECOVERY TIME (RECTIME) N/A

Time	Cum. Volume (gal)	Water Quality Temp.	pH	Cond.	Turb.	Comments
1115	Initial	16.7	6.87	16.14		Brown, Turbid
1145	5.0	16.9	7.13	16.75		"
1400	7.0	16.2	6.49	17.50		"
1430	10.0	16.7	6.44	18.60		"
1500	12.0	16.1	7.29	17.70		Light Brown Turbid
1530	15.0	16.1	7.17	17.50		Cloudy
1600	18.0	16.8	7.34	17.00		Cloudy
1630	22.0	16.6	7.24	16.2		Cloudy
1700	25.0	16.2	7.26	15.4		Slightly Cloudy
Field Measurements:						Time

Remarks (Remarks)

Bailed dry after ≈ 5 bailers.

D18728

WELL DEVELOPMENT LOG

SHEET ____ OF ____

PROJECT (PROJ. ID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
Holloman AFB - Table 2 RFI	MW-129-04	4-12-94	930

PERFORMED BY (LOGCODE)	DEVELOPMENT METHOD	SURGE TECHNIQUE
RAD	Bailer	Bailer

WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL	LOWEST WATER LEVEL DURING DEVELOPMENT (PUMPDEP)
28.4	28.9	34.7	34.8	34.2

TOTAL VOL. REMOVED 40 GALLONS – TIME ELAPSED 6.9 HRS = PRODUCTION RATE (PRODRATE) 5.78 gal/hr

RECOVERY DEPTH (DEPWAT) N/A
RECOVERY TIME (RECTIME) N/A

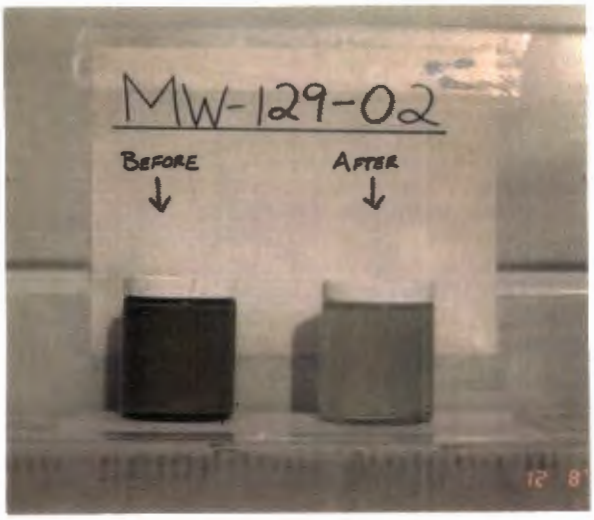
Time	Cum. Volume (gal)	Water Quality Temp.	pH	Cond.	Turb.	Comments
935	Initial	16.7	6.66	4.10		Brown, Turbid
1010	2.5	16.0	7.06	4.13		"
1033	5.0	16.0	7.14	4.21		"
1100	7.0	16.1	7.18	4.31		"
1135	9.0	17.0	7.23	4.31		Light brown, Turbid
1200	20.0	16.2	7.39	4.22		"
1400	21.0	17.6	7.07	4.03		"
1425	24.0	16.9	7.15	3.78		"
1500	30.0	17.1	7.38	3.98		Cloudy
1525	35.0	17.1	7.38	4.07		Cloudy
1550	38.0	16.4	7.38	4.23		Cloudy
1630	40.0	16.4	7.32	3.75		Slightly cloudy
1655	40.5	16.4	7.32	3.8		"
Field Measurements:						Time

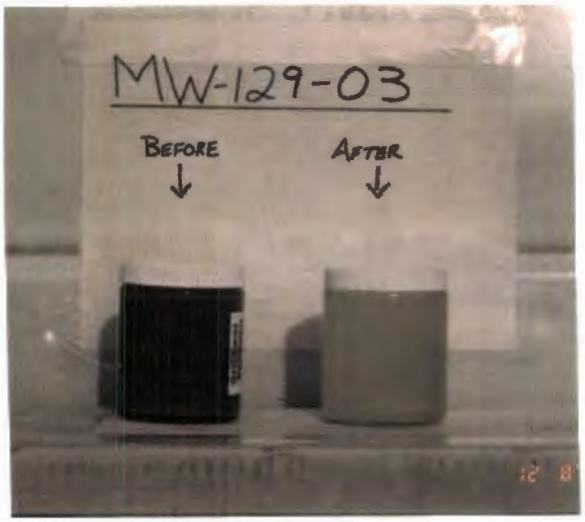
Remarks (Remarks)

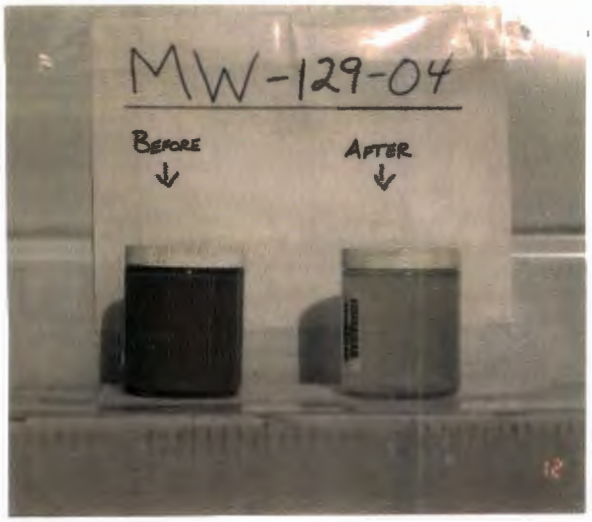
Well bailed dry after 18 bailers.

D1872B

MW-129-01
BEFORE
AFTER


MW-129-02
BEFORE
AFTER


MW-129-03
BEFORE
AFTER


MW-129-04
BEFORE
AFTER

D.4

Groundwater Sampling Logs

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB Task 2 RFI — DATE 12-8-93

SUBJECT Water Sampling — SHEET ___ OF ___ SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-129-01	12/8/93	10:45

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL
RAD	30.16	32.20	34.86	34.86

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
4.7	0.77	3.83

PURGE METHOD: BAILER

Time (LOGTIME)	Cum. Volume (gal)	Water Quality Temp	pH	Cond.	Turb.	Water Level	Comments
10:45	Initial	18.9	6.79	1.8	36.1		
10:50	3.0	18.8	7.05	2.3	67.2		
10:52	5.0	18.8	7.09	1.8	107.1		
							Alkalinity = 133
Final Measurements:							

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB Task 2 RFI DATE 12-8-93

SUBJECT Water Sampling SHEET ___ OF ___ SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-129-02	12/8/93	11:10

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL
RAD	27.84	32.26	35.0	35.0

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
7.16'	1.68	5.84

PURGE METHOD:

BAILER

Time (LOGTIME)	Cum. Volume (gal)	Water Quality Temp	pH	Cond.	Turb.	Water Level	Comments
11.10	Initial	18.3	6.79	2.8	45.4		
11:20	2.5	18.4	7.26	4.8	200		
11:35	6.0	18.0	7.44	2.7	190.7		
							Alkalinity = 130
Final Measurements:							

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB DATE 12/7/93

SUBJECT SHEET ___ OF ___ SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
M.	MW-129-03	12/7/93	1045

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL / FINAL	TOTAL DEPTH (SOUNDING) INITIAL / FINAL
RAD	30.20 / 33.33	35.98 / 35.98

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
5.78	0.94 gallons	4.72 gallons

PURGE METHOD: Bailer

Time (LOGTIME)	Cum. Volume (gal)	Water Quality Temp°C	pH	Cond.	Turb.	Water Level	Comments
1100	initial	18.2	6.6	1370			
1110	2 gal	18.0	6.8	1580			
1117	3 gal	18.2	7.0	1820			well bailed DRY
1150		17.5	7.1	1850			FINAL READING
Final Measurements:							

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB Table 2 RFI DATE 12-8-93

SUBJECT Water Sampling SHEET ___ OF ___ SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-129-04	12-8-93	11:45

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL	FINAL	TOTAL DEPTH (SOUNDING) INITIAL	FINAL
RAD	28.40	31.40	34.80	34.80

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
6.4	1.04	5.22

PURGE METHOD:

BAILER

Time (LOGTIME)	Cum. Volume (gal)	Water Quality Temp	pH	Cond.	Turb.	Water Level	Comments
11:45	Initial	18.3	6.76	2.0	22.8		
11:53	2.5	18.1	7.07	2.0	161.0		
12:08	6.0	18.0	7.13	2.2	75.8		
							Alkalinity = 127
Final Measurements:							

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB - Table 2 RFI

DATE 12-2-93

SUBJECT

SHEET 1 OF 1 SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-1601	12-2-93	16:45

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL / FINAL	TOTAL DEPTH (SOUNDING) INITIAL / FINAL
RAD	7.73 / 8.35	16.18 / 16.18

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
8.45	1.38	6.89

PURGE METHOD: BAILER

Time (LOGTIME)	Cum. Volume (gal)	Water Quality				Water Level	Comments
		Temp	pH	Cond.	Turb.		
16:50	0.5	19.2	7.31	4.8	146.5	7.80	Slightly Cloudy
16:55	3.0	19.5	7.26	4.7	612.0	12.1	Slightly Cloudy
17:00	7.0	19.2	7.22	4.9	447.0	8.35	Slightly cloudy
							Alkalinity 217
Final Measurements:	7.0	19.2	7.22	4.9	447.0	8.35	

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB - Task 2 RFI DATE 12-2-93

SUBJECT SHEET 1 OF 1 SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-1602	12-2-93	15:45

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL / FINAL	TOTAL DEPTH (SOUNDING) INITIAL / FINAL
RAD	8.80 / 12.3	16.36 / 16.36

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
7.56	1.23 gallons	6.6

PURGE METHOD: BAILER

Time (LOGTIME)	Cum. Volume (gal)	Water Quality				Water Level	Comments
		Temp	pH	Cond.	Turb.		
15:50	0.5	19.7	7.11	5.3	142.0	8.92	Slightly Cloudy
16:00	3.0	19.7	7.23	6.0	1600.0	15.4	Cloudy, letting recover
16:30	6.5	19.7	7.34	6.3	1642.0	12.3	Slightly cloudy
							Alkalinity 212
Final Measurements:	6.5	19.7	7.34	6.3	1642.0	12.3	

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB - Table 2 RFI

DATE 12-2

SUBJECT

SHEET 1 OF 1 SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-1603	12-2-93	14:40

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL / FINAL	TOTAL DEPTH (SOUNDING) INITIAL / FINAL
RAD	8.19 / 8.27	16.15 / 16.15

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
7.96	1.29 gallons	6.45 gallons

PURGE METHOD:

Time (LOGTIME)	Cum. Volume (gal)	Water Quality: Temp	pH	Cond.	Turb.	Water Level	Comments
15:08	0.5	19.7	6.5	3.9	940	8.19	water cloudy
15:15	3.0	19.6	6.86	4.5	1100	8.27	water Cloudy
15:25	6.5	19.6	7.03	4.3	1120	8.27	water Cloudy
							Alkalinity 4/3
Final Measurements:	6.5	19.6	7.03	4.3		8.27	

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

RADIAN CORPORATION

TITLE: IRP Groundwater Sampling Log

PROJECT Holloman AFB Task 2 RFI — DATE 12-8-93

SUBJECT Water Sampling — SHEET ___ OF ___ SHEETS

INSTALLATION ID (AFID)	WELL ID (LOCID)	(LOGDATE)	(LOGTIME)
	MW-1604	12-8-93	9:50

PERFORMED BY (LOGCODE)	WATER LEVEL (STATDEP) INITIAL / FINAL	TOTAL DEPTH (SOUNDING) INITIAL / FINAL
RAD	8.60 / 9.42	15.16 / 15.16

SATURATED THICKNESS	WELL VOLUME	AMOUNT TO PURGE
6.56	1.07 gal	5.35 gal

PURGE METHOD: Bailer

Time (LOGTIME)	Cum. Volume (gal)	Water Quality: Temp	pH	Cond.	Turb.	Water Level	Comments
9:50	Initial	19.5	6.8	2.6	79.6		
9:55	1 gal	19.9	7.2	2.4	117.5		Well Dry at 1 gallon
							Alkalinity = 174
Final Measurements:							

SAMPLING METHOD (SMCODE)

Sample ID	(MATRIX)	Preservative	Analysis	Sample Type Code (SACode)	Comments

Figure 5-13. IRP Groundwater Sampling Log

D.5

Surveying Data

site_id	loc_id	n_coord	e_coord
002	002-B01	554682.420000	671940.030000
0[illegible]	002-B02	554687.310000	671947.970000
0[illegible]	015-B01	553042.950000	671780.570000
015	015-B02	553047.370000	671780.570000
017	017-B01	549814.380000	669337.800000
017	017-B02	549805.000000	669324.380000
032	032-B01	543519.770000	670429.120000
032	032-B02	543526.370000	670432.560000
036	036-B01	549084.650000	676915.880000
036	036-B02	549072.900000	676918.660000
039	039-B01	553525.210000	676346.790000
039	039-B02	553527.370000	676338.360000
040	040-B01	532217.920000	685638.560000
040	040-B02	532223.020000	685640.070000
040	040-B03	532225.950000	685616.210000
054	054-B01	554965.840000	673627.100000
054	054-B02	554982.240000	673610.510000
055	055-B01	554973.330000	673504.270000
055	055-B02	554946.640000	673533.390000
056	056-B01	540584.710000	667755.520000
056	056-B02	540605.860000	667720.180000
056	056-B03	540597.100000	667703.520000
063	063-B01	542959.410000	671114.660000
071	071-B01	533240.250000	686962.150000
071	071-B02	533240.460000	686955.590000
071	071-B03	533248.210000	686961.520000
071	071-B04	533245.580000	686955.390000
[illegible]	071-B05	533242.700000	686959.290000
07[illegible]	078-B01	540213.000000	668327.960000
078	078-B02	540188.370000	668431.160000
078	078-B03	540075.970000	668348.660000
078	078-B04	540084.580000	668406.500000
091	091-B01	538844.680000	668068.520000
091	091-B02	538824.890000	668050.400000
118	118-B01	553888.150000	669291.040000
118	118-B02	553892.460000	669296.340000
118	118-B03	553892.060000	669289.450000
118	118-B04	553886.470000	669298.370000
118	118-B05	553890.520000	669294.010000
119	119-B01	554679.150000	671948.670000
119	119-B02	554671.020000	671952.330000
125	125-B01	543505.180000	670446.290000
125	125-B02	543443.870000	670423.810000
126	126-B01	549066.060000	676920.900000
126	126-B02	549061.730000	676914.680000
127	127-B01	553543.360000	676337.020000
127	127-B02	553558.170000	676292.630000
129	129-B10	546779.320000	684345.280000
132	132-B01	553877.800000	669327.960000
132	132-B02	553888.240000	669335.770000
132	132-B03	553878.130000	669334.580000
132	132-B04	553883.250000	669340.080000
1[illegible]	136-B01	540348.720000	681551.470000
[illegible]	136-B02	540330.840000	681535.160000
AOC-A	AOC-A-B01	553934.640000	669358.480000
AOC-A	AOC-A-B02	553943.280000	669366.520000
AOC-A	AOC-A-B03	553952.100000	669374.270000
AOC-A	AOC-A-B04	553964.040000	669384.930000

AOC-A	AOC-A-B05	553945.570000	669340.350000
AOC-A	AOC-A-B06	553954.490000	669349.510000
AOC-A	AOC-A-B07	553964.120000	669356.760000
A[illegible]	AOC-A-B08	553976.940000	669371.230000
1[illegible]	123-B01	554953.330000	673441.130000
123	123-B02	554968.500000	673444.160000
129	129-B05	545750.770000	684166.670000
129	129-B06	545679.570000	684116.920000
129	129-B07	545711.760000	684163.070000
129	129-B08	545668.000000	684171.860000
129	129-B09	545709.760000	684224.810000
129	129-B11	546807.810000	684218.450000
129	129-B12	546759.750000	684265.760000
129	129-B13	546820.810000	684321.000000
156	156-B01	545281.500000	665642.070000
179	179-B01	530607.530000	685215.840000
179	179-B02	530600.290000	685162.600000
179	179-B03	530611.770000	685107.740000
179	179-B04	530613.030000	684934.630000
179	179-B05	530609.260000	685276.170000
179	179-B06	530883.320000	685239.150000
179	179-B07	530819.260000	685168.930000
179	179-B08	530726.740000	685085.380000
181	181-B01	530246.780000	685062.690000
181	181-B02	530389.740000	685046.650000
129	129-B01	546168.580000	684237.760000
129	129-B02	546249.510000	684231.360000
156	156-B02	545352.180000	665673.220000
164	164-A01	550164.350000	675461.780000
[illegible]	164-A03	550110.320000	675284.850000
164	164-A04	550130.670000	675554.150000
164	164-A05	550205.510000	675461.840000
164	164-A06	550177.630000	675317.840000
164	164-B01	550227.790000	675562.030000
164	164-B02	550169.340000	675415.820000
179	179-A03	530694.140000	685327.700000
179	179-BPH01	530881.210000	685071.580000
022	022-B01	554916.050000	673433.620000
022	022-B02	554905.830000	673438.080000
118	118-MW1601	553922.900000	669399.400000
118	118-MW1602	553866.700000	669306.300000
118	118-MW1603	553885.300000	669245.600000
118	118-MW1604	553946.900000	669260.100000
123	123-B03	554932.490000	673447.650000
129	129-B03	546331.880000	684241.590000
129	129-MW01	546111.400000	684304.300000
129	129-MW02	546174.200000	683820.730000
129	129-MW03	546704.350000	684284.870000
129	129-MW04	545618.320000	684169.600000
138	138-A01	532225.570000	685592.080000
138	138-A03	532212.990000	685571.930000
156	156-B03	545340.210000	665582.630000
156	156-B04	545395.530000	665630.590000
177	177-H01	530257.230000	684916.090000
1[illegible]	177-H02	530203.320000	684729.080000
[illegible]	177-H03	530409.270000	684947.040000
177	177-H04	530342.800000	684727.250000
179	179-H01	530533.880000	684726.670000
179	179-H02	530656.360000	684710.190000
179	179-H04	530755.360000	684989.530000

AOC-A	AOC-A-H01	553930.210000	669445.100000
AOC-A	AOC-A-H02	553870.320000	669403.040000
AOC-A	AOC-A-H03	553856.590000	669341.970000
A[illegible]	AOC-A-H04	553839.170000	669274.020000
A[illegible]	AOC-A-H05	553861.010000	669218.460000
AOC-A	AOC-A-H06	553900.350000	669202.990000
AOC-A	AOC-A-H07	553979.660000	669209.910000
AOC-U	AOC-U-A01	528749.050000	684671.260000
AOC-U	AOC-U-A02	529613.560000	685111.660000
AOC-U	AOC-U-A03	530552.260000	684829.230000
AOC-U	AOC-U-A04	530841.670000	684751.270000
AOC-U	AOC-U-A05	532069.790000	684694.750000
AOC-U	AOC-U-A06	529022.060000	684436.110000
AOC-U	AOC-U-A07	529494.190000	684740.350000
AOC-U	AOC-U-A08	530508.430000	684450.570000
AOC-U	AOC-U-A09	530891.140000	684419.190000
AOC-U	AOC-U-A10	532106.870000	684404.790000
SG-25	PRA-05	530763.940000	685202.210000
SG-25	SRA-A05	530763.940000	685202.210000
138	138-A02	532221.650000	685576.980000
021	021-B01	554891.840000	673426.750000
AOC-A	AOC-A-A01	553952.590000	669331.940000
179	179-MW3901	531057.130000	685782.380000
179	179-MW3902	530243.320000	685059.600000
179	179-MW3903	530596.800000	685072.760000
179	179-MW3904	530918.810000	685269.870000
179	179-BPH02	530829.170000	685035.010000
179	179-BPH03	530764.030000	684991.260000
177	177-FH01	530242.340000	684998.160000
[illegible]	177-FH02	530257.230000	684916.090000
1[illegible]	177-FH03	530224.860000	684823.470000
177	177-FH04	530203.320000	684729.080000
177	177-FH05	530409.270000	684947.040000
177	177-FH06	530382.750000	684845.030000
177	177-FH07	530342.800000	684727.250000
177	177-FH08	530179.330000	684945.360000
179	179-FH01	530533.880000	684726.670000
179	179-FH02	530656.360000	684710.190000
179	179-FH04	530755.360000	684989.530000
179	179-FH05	530929.700000	684902.000000
179	179-FH06	530683.400000	684951.510000
AOC-A	AOC-A-FA01	553952.590000	669331.940000
AOC-A	AOC-A-FA02	553944.710000	669346.680000
AOC-A	AOC-A-FA03	553963.390000	669346.930000
AOC-A	AOC-A-FA04	553989.740000	669365.570000
AOC-A	AOC-A-FA05	553985.470000	669354.820000
AOC-A	AOC-A-FA06	553972.240000	669340.880000
AOC-A	AOC-A-FH01	553930.210000	669445.100000
AOC-A	AOC-A-FH02	553870.320000	669403.040000
AOC-A	AOC-A-FH03	553856.590000	669341.970000
AOC-A	AOC-A-FH04	553839.170000	669274.020000
AOC-A	AOC-A-FH05	553861.010000	669218.460000
AOC-A	AOC-A-FH06	553900.350000	669202.990000
AOC-A	AOC-A-FH07	553979.660000	669209.910000
A[illegible]	AOC-A-FH08	553959.390000	669116.400000
A[illegible]	AOC-A-FH09	554027.490000	669099.810000
AOC-A	AOC-A-FH10	553955.930000	669037.340000
AOC-A	AOC-A-FH11	553935.620000	668950.400000
AOC-A	AOC-A-FH12	553918.690000	669078.530000
AOC-A	AOC-A-FH13	553881.650000	669011.050000

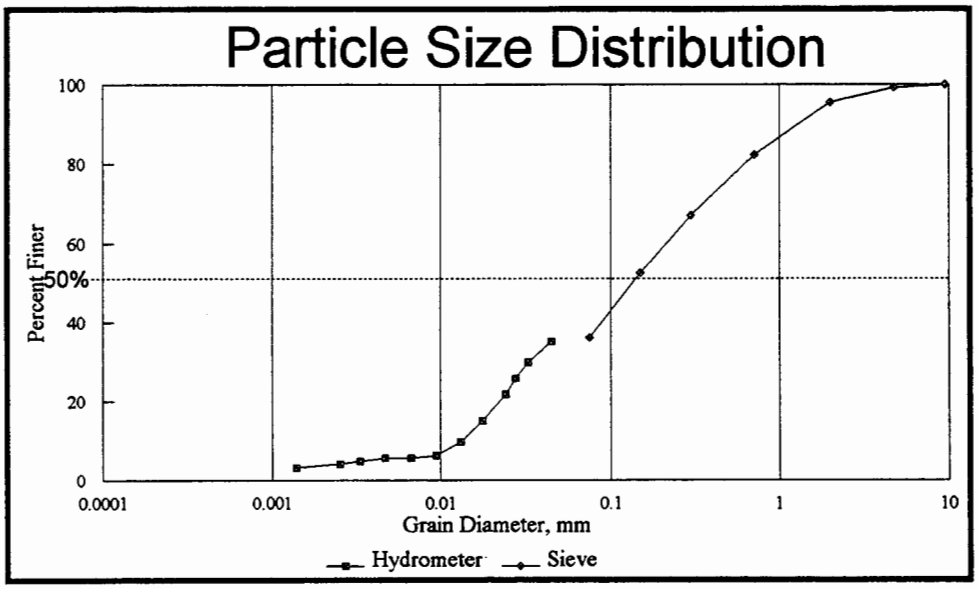
AOC-A	AOC-A-FH15	554055.300000	669203.250000

Appendix E

Results of Geotechnical Analysis

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	156
Analyst	GST	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			98.75	
Moisture content (%), wet wt. basis			24.60	
Wt. of dry sample, Ws (g)			74.46	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.69	0.93	99.1
10	2.000	2.76	3.71	95.4
25	0.710	9.68	13.00	82.4
50	0.300	11.40	15.31	67.1
100	0.150	10.80	14.50	52.6
200	0.075	12.25	16.45	36.1
Total Wt. retained (g)		47.58		

Summary

Mean particle size (mm)	0.138
Gravel (%) - retained on No. 4	0.9
Sand (%) - pass No. 4 & retained No. 200	63.0
Silt (%) - 0.074 to 0.005 mm	30.5
Clay (%) - smaller than 0.005 mm	5.6

Hydrometer Method

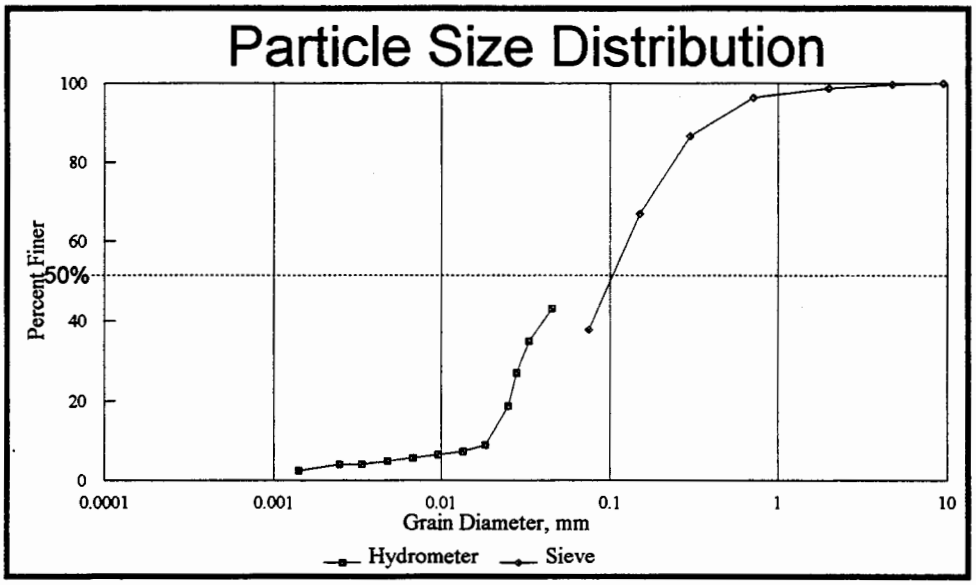
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5
Wt. of sample (g)	74.46	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	09:34		21				Start			
12/15/93	09:35	1	21	31	26.2	35.2	11.1	11.13	0.0135	0.0450
12/15/93	09:36	2	21	27	22.2	29.8	11.8	5.89	0.0135	0.0327
12/15/93	09:37	3	21	24	19.2	25.8	12.3	4.09	0.0135	0.0273
12/15/93	09:38	4	21	21	16.2	21.8	12.8	3.19	0.0135	0.0241
12/15/93	09:42	8	21	16	11.2	15.0	13.6	1.70	0.0135	0.0176
12/15/93	09:49	15	21	12	7.2	9.7	14.2	0.95	0.0135	0.0131
12/15/93	10:04	30	21	9.5	4.7	6.3	14.7	0.49	0.0135	0.0094
12/15/93	10:34	60	21	9	4.2	5.6	14.7	0.25	0.0135	0.0067
12/15/93	11:36	122	21	9	4.2	5.6	14.7	0.12	0.0135	0.0047
12/15/93	13:36	242	21	8.5	3.7	5.0	14.8	0.06	0.0135	0.0033
12/15/93	16:38	424	21	8	3.2	4.3	14.9	0.04	0.0135	0.0025
12/16/93	09:14	1420	20	7.5	2.5	3.4	15.0	0.01	0.0136	0.0014

16-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	40/138
Analyst	JBO	Date	12/17/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			72.15	
Moisture content (%), wet wt. basis			14.80	
Wt. of dry sample, Ws (g)			61.47	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.23	0.37	99.6
10	2.000	0.57	0.93	98.7
25	0.710	1.50	2.44	96.3
50	0.300	5.84	9.50	86.8
100	0.150	12.23	19.90	66.9
200	0.075	17.88	29.09	37.8
Total Wt. retained (g)		38.25		

Summary

Mean particle size (mm)	0.110
Gravel (%) - retained on No. 4	0.4
Sand (%) - pass No. 4 & retained No. 200	61.8
Silt (%) - 0.074 to 0.005 mm	32.8
Clay (%) - smaller than 0.005 mm	5.0

Hydrometer Method

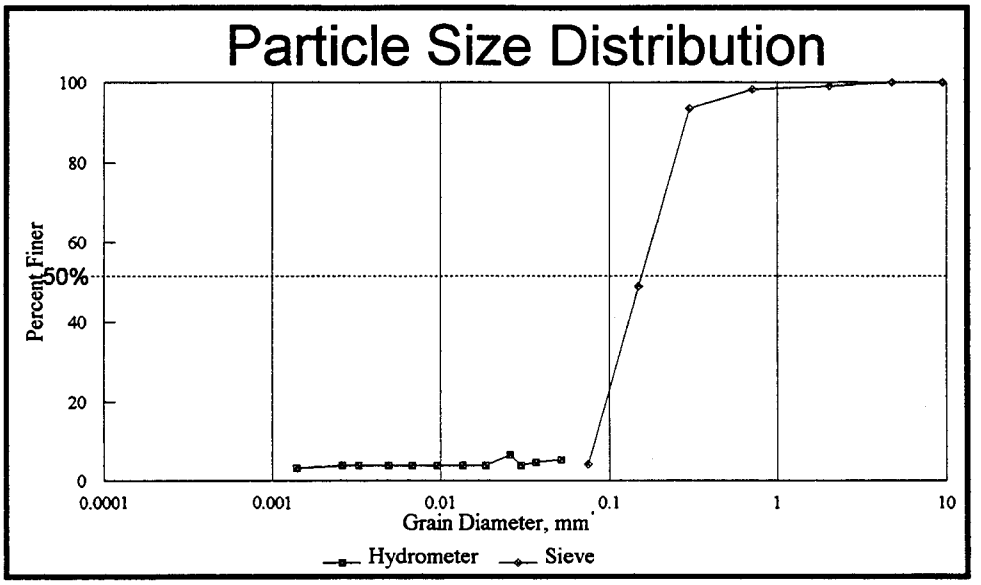
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5.5
Wt. of sample (g)	61.47	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/16/93	08:56		20				Start			
12/16/93	08:57	1	20	32	26.5	43.1	11.0	10.97	0.0136	0.0452
12/16/93	08:58	2	20	27	21.5	35.0	11.8	5.89	0.0136	0.0331
12/16/93	08:59	3	20	22	16.5	26.8	12.6	4.20	0.0136	0.0280
12/16/93	09:00	4	20	17	11.5	18.7	13.4	3.36	0.0136	0.0250
12/16/93	09:04	8	20	11	5.5	8.9	14.4	1.80	0.0136	0.0183
12/16/93	09:11	15	20	10	4.5	7.3	14.6	0.97	0.0136	0.0135
12/16/93	09:26	30	20	9.5	4	6.5	14.7	0.49	0.0136	0.0095
12/16/93	09:56	60	20	9	3.5	5.7	14.7	0.25	0.0136	0.0068
12/16/93	10:56	120	20.5	8.5	3	4.9	14.8	0.12	0.0136	0.0048
12/16/93	13:00	244	20	8	2.5	4.1	14.9	0.06	0.0136	0.0034
12/16/93	16:30	454	20	8	2.5	4.1	14.9	0.03	0.0136	0.0025
12/17/93	08:30	1414	20.5	7	1.5	2.4	15.1	0.01	0.0136	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	36-B01
Analyst	GST	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			89.48	
Moisture content (%), wet wt. basis			15.90	
Wt. of dry sample, Ws (g)			75.25	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.75	1.00	99.0
25	0.710	0.60	0.80	98.2
50	0.300	3.55	4.72	93.5
100	0.150	33.51	44.53	49.0
200	0.075	33.62	44.68	4.3
Total Wt. retained (g)		72.03		

Summary

Mean particle size (mm)	0.153
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	95.7
Silt (%) - 0.074 to 0.005 mm	0.3
Clay (%) - smaller than 0.005 mm	4.0

Hydrometer Method

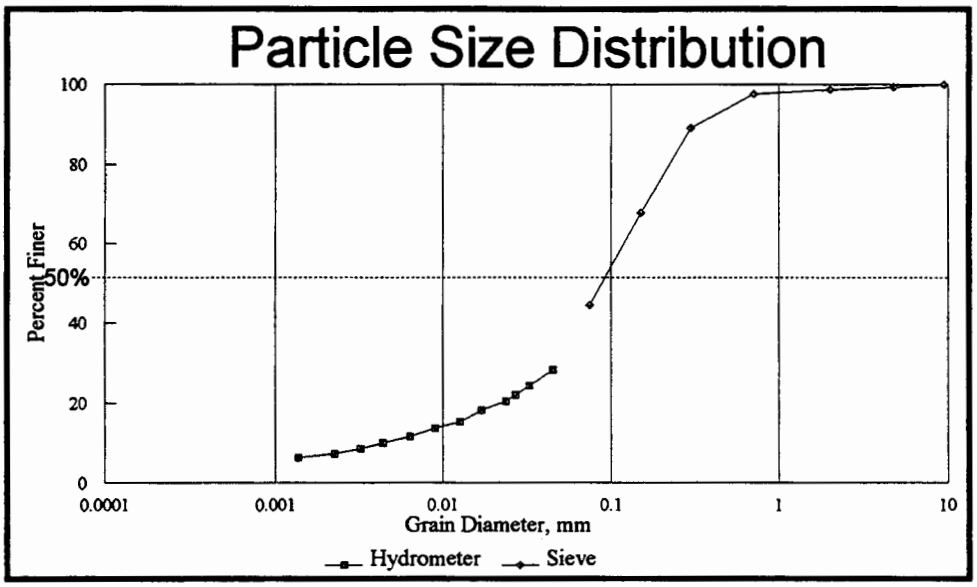
Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 6
Wt. of sample (g)	75.25	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	09:42		20				Start			
12/15/93	09:43	1	20	10	4	5.3	14.6	14.58	0.0136	0.0521
12/15/93	09:44	2	20	9.5	3.5	4.7	14.7	7.33	0.0136	0.0369
12/15/93	09:45	3	20	9	3	4.0	14.7	4.91	0.0136	0.0303
12/15/93	09:46	4	20	11	5	6.6	14.4	3.60	0.0136	0.0259
12/15/93	09:50	8	20	9	3	4.0	14.7	1.84	0.0136	0.0185
12/15/93	09:57	15	20	9	3	4.0	14.7	0.98	0.0136	0.0135
12/15/93	10:12	30	20	9	3	4.0	14.7	0.49	0.0136	0.0096
12/15/93	10:42	60	20	9	3	4.0	14.7	0.25	0.0136	0.0068
12/15/93	11:37	115	20.5	9	3	4.0	14.7	0.13	0.0136	0.0049
12/15/93	14:02	260	20.5	9	3	4.0	14.7	0.06	0.0136	0.0032
12/15/93	16:33	411	20	9	3	4.0	14.7	0.04	0.0136	0.0026
12/16/93	09:00	1398	20	8.5	2.5	3.3	14.8	0.01	0.0136	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	54-B01
Analyst	GST	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			102.54	
Moisture content (%), wet wt. basis			13.00	
Wt. of dry sample, Ws (g)			89.21	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.53	0.59	99.4
10	2.000	0.57	0.64	98.8
25	0.710	1.04	1.17	97.6
50	0.300	7.66	8.59	89.0
100	0.150	19.07	21.38	67.6
200	0.075	20.57	23.06	44.6
Total Wt. retained (g)		49.44		

Summary

Mean particle size (mm)	0.093
Gravel (%) - retained on No. 4	0.6
Sand (%) - pass No. 4 & retained No. 200	54.8
Silt (%) - 0.074 to 0.005 mm	34.1
Clay (%) - smaller than 0.005 mm	10.5

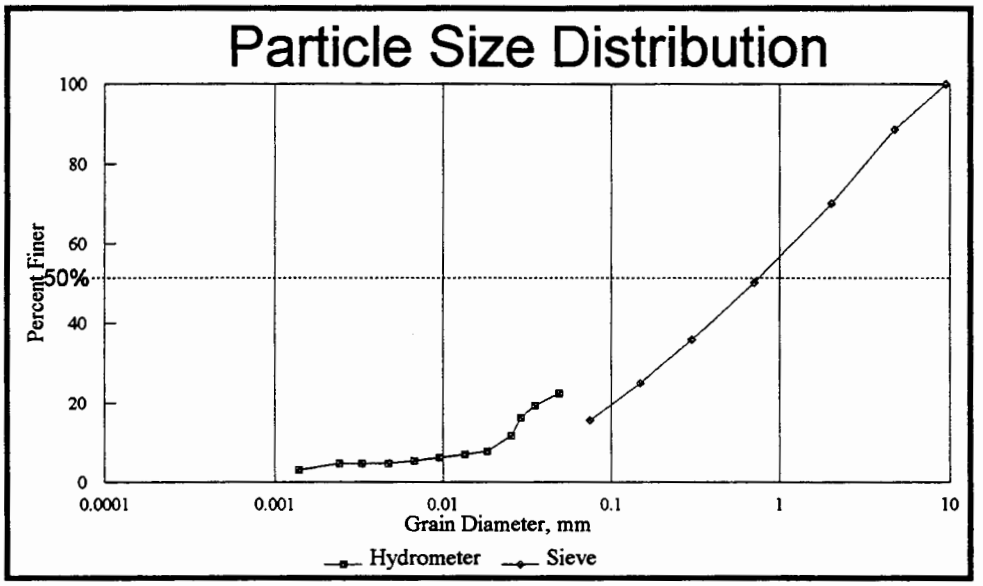
Hydrometer Method

Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 5
Wt. of sample (g)	89.21	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/20/93	09:12		21.5				Start			
12/20/93	09:13	1	21.5	30	25.2	28.2	11.3	11.30	0.0135	0.0453
12/20/93	09:14	2	21.5	26.5	21.7	24.3	11.9	5.94	0.0135	0.0328
12/20/93	09:15	3	21.5	24.5	19.7	22.1	12.2	4.07	0.0135	0.0272
12/20/93	09:16	4	21.5	23	18.2	20.4	12.4	3.11	0.0135	0.0238
12/20/93	09:20	8	21.5	21	16.2	18.2	12.8	1.60	0.0135	0.0170
12/20/93	09:27	15	21.5	18.5	13.7	15.4	13.2	0.88	0.0135	0.0126
12/20/93	09:42	30	21.5	17	12.2	13.7	13.4	0.45	0.0135	0.0090
12/20/93	10:12	60	22	15	10.4	11.7	13.8	0.23	0.0133	0.0064
12/20/93	11:19	127	22	13.5	8.9	10.0	14.0	0.11	0.0133	0.0044
12/20/93	13:18	246	21	12.5	7.7	8.6	14.2	0.06	0.0135	0.0032
12/20/93	17:47	515	20	11.5	6.5	7.3	14.3	0.03	0.0136	0.0023
12/21/93	09:10	1438	19	11	5.7	6.4	14.4	0.01	0.0138	0.0014

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	63-B01
Analyst	JBO	Date	12/17/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			84.42	
Moisture content (%), wet wt. basis			23.50	
Wt. of dry sample, Ws (g)			64.58	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	7.41	11.47	88.5
10	2.000	11.91	18.44	70.1
25	0.710	12.76	19.76	50.3
50	0.300	9.33	14.45	35.9
100	0.150	7.03	10.89	25.0
200	0.075	5.98	9.26	15.7
Total Wt. retained (g)		54.42		

Summary

Mean particle size (mm)	0.700
Gravel (%) - retained on No. 4	11.5
Sand (%) - pass No. 4 & retained No. 200	72.8
Silt (%) - 0.074 to 0.005 mm	11.0
Clay (%) - smaller than 0.005 mm	4.7

Hydrometer Method

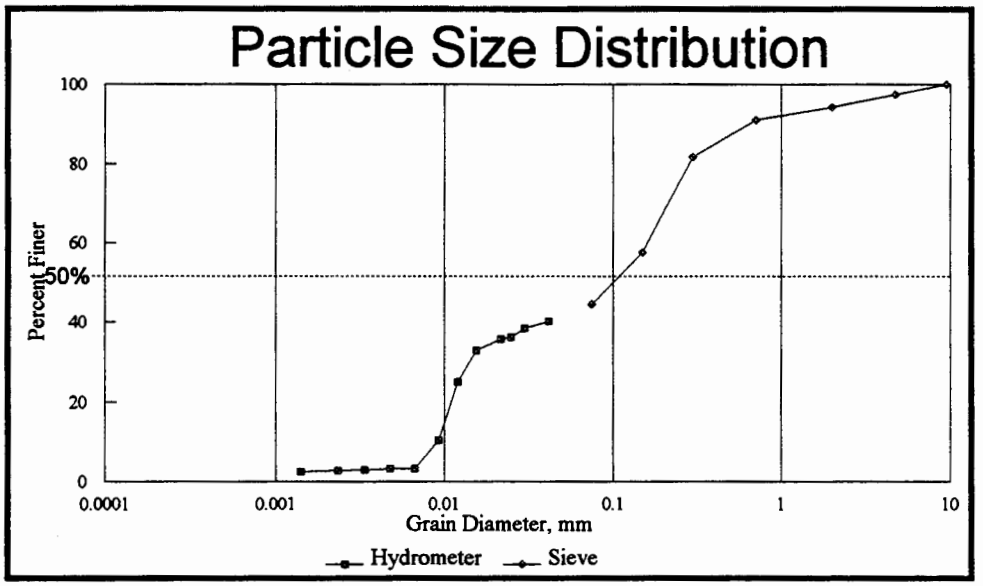
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5.5
Wt. of sample (g)	64.58	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/16/93	08:52		20				Start			
12/16/93	08:53	1	20	20	14.5	22.5	12.9	12.94	0.0136	0.0491
12/16/93	08:54	2	20	18	12.5	19.4	13.3	6.63	0.0136	0.0351
12/16/93	08:55	3	20	16	10.5	16.3	13.6	4.53	0.0136	0.0290
12/16/93	08:56	4	20	13	7.5	11.6	14.1	3.52	0.0136	0.0256
12/16/93	09:00	8	20	10.5	5	7.7	14.5	1.81	0.0136	0.0184
12/16/93	09:07	15	20	10	4.5	7.0	14.6	0.97	0.0136	0.0135
12/16/93	09:22	30	20	9.5	4	6.2	14.7	0.49	0.0136	0.0095
12/16/93	09:52	60	20	9	3.5	5.4	14.7	0.25	0.0136	0.0068
12/16/93	10:52	120	20.5	8.5	3	4.6	14.8	0.12	0.0136	0.0048
12/16/93	13:00	248	20	8.5	3	4.6	14.8	0.06	0.0136	0.0033
12/16/93	16:30	458	20	8.5	3	4.6	14.8	0.03	0.0136	0.0025
12/17/93	08:30	1418	20.5	7.5	2	3.1	15.0	0.01	0.0136	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	118-B01
Analyst	GST	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			119.34	
Moisture content (%), wet wt. basis			25.50	
Wt. of dry sample, Ws (g)			88.91	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	2.23	2.51	97.5
10	2.000	2.83	3.18	94.3
25	0.710	2.97	3.34	91.0
50	0.300	8.20	9.22	81.7
100	0.150	21.50	24.18	57.6
200	0.075	11.65	13.10	44.5
Total Wt. retained (g)		49.38		

Summary

Mean particle size (mm)	0.106
Gravel (%) - retained on No. 4	2.5
Sand (%) - pass No. 4 & retained No. 200	53.0
Silt (%) - 0.074 to 0.005 mm	41.2
Clay (%) - smaller than 0.005 mm	3.3

Hydrometer Method

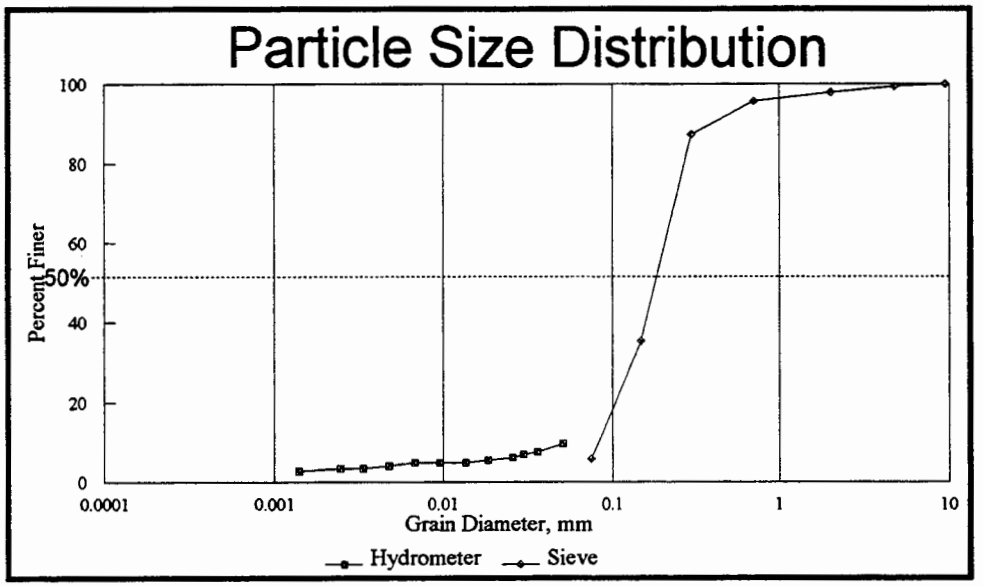
Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 5
Wt. of sample (g)	88.91	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/20/93	09:22		21.5				Start			
12/20/93	09:23	1	21.5	40.5	35.7	40.2	9.6	9.58	0.0135	0.0417
12/20/93	09:24	2	21.5	39	34.2	38.5	9.8	4.91	0.0135	0.0299
12/20/93	09:25	3	21.5	37	32.2	36.2	10.1	3.38	0.0135	0.0248
12/20/93	09:26	4	21.5	36.5	31.7	35.7	10.2	2.56	0.0135	0.0216
12/20/93	09:30	8	21.5	34	29.2	32.8	10.6	1.33	0.0135	0.0156
12/20/93	09:37	15	21.5	27	22.2	25.0	11.8	0.79	0.0135	0.0120
12/20/93	09:52	30	21.5	14	9.2	10.3	13.9	0.46	0.0135	0.0092
12/20/93	10:22	60	22	7.5	2.9	3.3	15.0	0.25	0.0133	0.0067
12/20/93	11:19	117	22	7.5	2.9	3.3	15.0	0.13	0.0133	0.0048
12/20/93	13:18	236	21	7.5	2.7	3.0	15.0	0.06	0.0135	0.0034
12/20/93	17:47	505	20	7.5	2.5	2.8	15.0	0.03	0.0136	0.0024
12/21/93	09:10	1428	19	7.5	2.2	2.5	15.0	0.01	0.0138	0.0014

21-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	119-B01
Analyst	JBO	Date	12/17/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			85.16	
Moisture content (%), wet wt. basis			15.00	
Wt. of dry sample, Ws (g)			72.39	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.50	0.69	99.3
10	2.000	0.98	1.35	98.0
25	0.710	1.60	2.21	95.7
50	0.300	6.08	8.40	87.3
100	0.150	37.70	52.08	35.3
200	0.075	21.26	29.37	5.9
Total Wt. retained (g)		68.12		

Summary

Mean particle size (mm)	0.190
Gravel (%) - retained on No. 4	0.7
Sand (%) - pass No. 4 & retained No. 200	93.4
Silt (%) - 0.074 to 0.005 mm	1.7
Clay (%) - smaller than 0.005 mm	4.2

Hydrometer Method

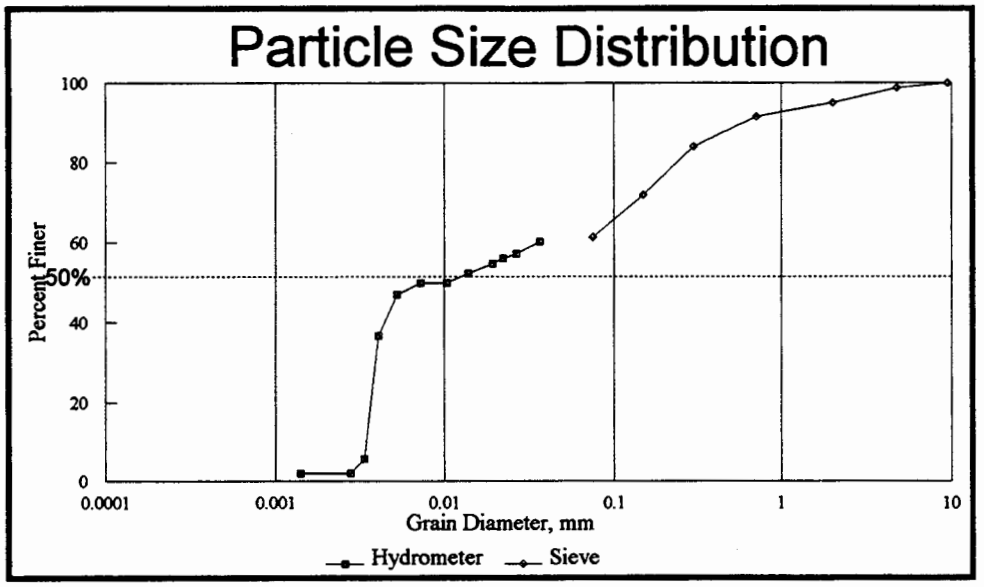
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5.5
Wt. of sample (g)	72.39	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/16/93	08:54		20				Start			
12/16/93	08:55	1	20	12.5	7	9.7	14.2	14.17	0.0136	0.0514
12/16/93	08:56	2	20	11	5.5	7.6	14.4	7.21	0.0136	0.0366
12/16/93	08:57	3	20	10.5	5	6.9	14.5	4.83	0.0136	0.0300
12/16/93	08:58	4	20	10	4.5	6.2	14.6	3.64	0.0136	0.0261
12/16/93	09:02	8	20	9.5	4	5.5	14.7	1.83	0.0136	0.0185
12/16/93	09:09	15	20	9	3.5	4.8	14.7	0.98	0.0136	0.0135
12/16/93	09:24	30	20	9	3.5	4.8	14.7	0.49	0.0136	0.0096
12/16/93	09:54	60	20	9	3.5	4.8	14.7	0.25	0.0136	0.0068
12/16/93	10:54	120	20.5	8.5	3	4.1	14.8	0.12	0.0136	0.0048
12/16/93	13:00	246	20	8	2.5	3.5	14.9	0.06	0.0136	0.0034
12/16/93	16:30	456	20	8	2.5	3.5	14.9	0.03	0.0136	0.0025
12/17/93	08:30	1416	20.5	7.5	2	2.8	15.0	0.01	0.0136	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	136-B01
Analyst	GST	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			102.82	
Moisture content (%), wet wt. basis			18.80	
Wt. of dry sample, Ws (g)			83.49	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	1.09	1.31	98.7
10	2.000	3.11	3.73	95.0
25	0.710	2.83	3.39	91.6
50	0.300	6.41	7.68	83.9
100	0.150	9.95	11.92	72.0
200	0.075	8.90	10.66	61.3
Total Wt. retained (g)		32.29		

Summary

Mean particle size (mm)	0.010
Gravel (%) - retained on No. 4	1.3
Sand (%) - pass No. 4 & retained No. 200	37.4
Silt (%) - 0.074 to 0.005 mm	16.8
Clay (%) - smaller than 0.005 mm	44.5

Hydrometer Method

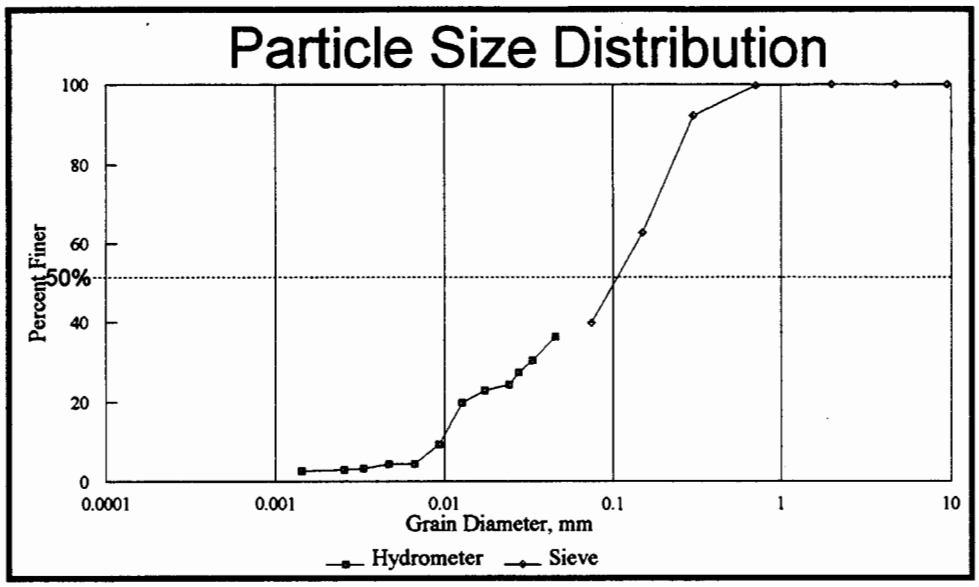
Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 6
Wt. of sample (g)	83.49	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/21/93	09:26		19				Start			
12/21/93	09:27	1	19	56.5	50.2	60.1	7.0	6.95	0.0138	0.0364
12/21/93	09:28	2	19	54	47.7	57.1	7.4	3.68	0.0138	0.0265
12/21/93	09:29	3	19	53	46.7	55.9	7.5	2.51	0.0138	0.0219
12/21/93	09:30	4	19	52	45.7	54.7	7.7	1.92	0.0138	0.0192
12/21/93	09:34	8	19	50	43.7	52.3	8.0	1.00	0.0138	0.0138
12/21/93	09:41	15	19	48	41.7	49.9	8.3	0.56	0.0138	0.0103
12/21/93	09:56	30	19	48	41.7	49.9	8.3	0.28	0.0138	0.0073
12/21/93	10:26	60	19	45.5	39.2	47.0	8.8	0.15	0.0138	0.0053
12/21/93	11:23	117	19	37	30.7	36.8	10.1	0.09	0.0138	0.0041
12/21/93	13:30	244	19.5	11	4.7	5.6	14.4	0.06	0.0138	0.0034
12/21/93	15:30	364	19.5	8	1.7	2.0	14.9	0.04	0.0138	0.0028
12/22/93	09:18	1432	19	8	1.7	2.0	14.9	0.01	0.0138	0.0014

22-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	15-B02
Analyst	JBO	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			79.52	
Moisture content (%), wet wt. basis			16.30	
Wt. of dry sample, Ws (g)			66.56	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.00	0.00	100.0
25	0.710	0.16	0.24	99.8
50	0.300	5.11	7.68	92.1
100	0.150	19.52	29.33	62.8
200	0.075	15.19	22.82	39.9
Total Wt. retained (g)		39.98		

Summary

Mean particle size (mm)	0.110
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	60.1
Silt (%) - 0.074 to 0.005 mm	35.5
Clay (%) - smaller than 0.005 mm	4.4

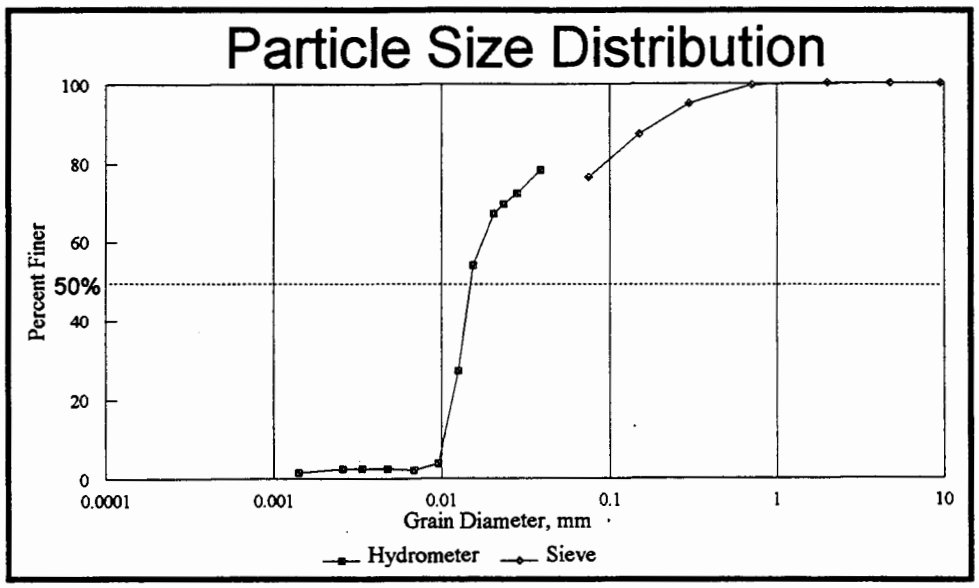
Hydrometer Method

					Specific gravity		2.65			
					a, corr. factor		1.00	Zero correction		5
					Wt. of sample (g)		66.56	Meniscus correction		0.5
Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/20/93	09:05		21.5				Start			
12/20/93	09:06	1	21.5	29	24.2	36.4	11.5	11.46	0.0135	0.0456
12/20/93	09:07	2	21.5	25	20.2	30.3	12.1	6.06	0.0135	0.0332
12/20/93	09:08	3	21.5	23	18.2	27.3	12.4	4.15	0.0135	0.0275
12/20/93	09:09	4	21.5	21	16.2	24.3	12.8	3.19	0.0135	0.0241
12/20/93	09:13	8	21.5	20	15.2	22.8	12.9	1.62	0.0135	0.0171
12/20/93	09:20	15	21.5	18	13.2	19.8	13.3	0.88	0.0135	0.0127
12/20/93	09:35	30	21.5	11	6.2	9.3	14.4	0.48	0.0135	0.0093
12/20/93	10:05	60	22	7.5	2.9	4.4	15.0	0.25	0.0133	0.0067
12/20/93	11:05	120	22	7.5	2.9	4.4	15.0	0.12	0.0133	0.0047
12/20/93	13:15	250	21	7	2.2	3.3	15.1	0.06	0.0135	0.0033
12/20/93	16:15	430	20	7	2	3.0	15.1	0.04	0.0136	0.0026
12/21/93	08:45	1420	19	7	1.7	2.6	15.1	0.01	0.0138	0.0014

22-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	78-B02
Analyst	GAT	Date	12/17/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			77.27	
Moisture content (%), wet wt. basis			25.30	
Wt. of dry sample, Ws (g)			57.72	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.00	0.00	100.0
25	0.710	0.22	0.38	99.6
50	0.300	2.64	4.57	95.0
100	0.150	4.44	7.69	87.4
200	0.075	6.28	10.88	76.5
Total Wt. retained (g)		13.58		

Summary

Mean particle size (mm)	0.015
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	23.5
Silt (%) - 0.074 to 0.005 mm	74.2
Clay (%) - smaller than 0.005 mm	2.3

Hydrometer Method

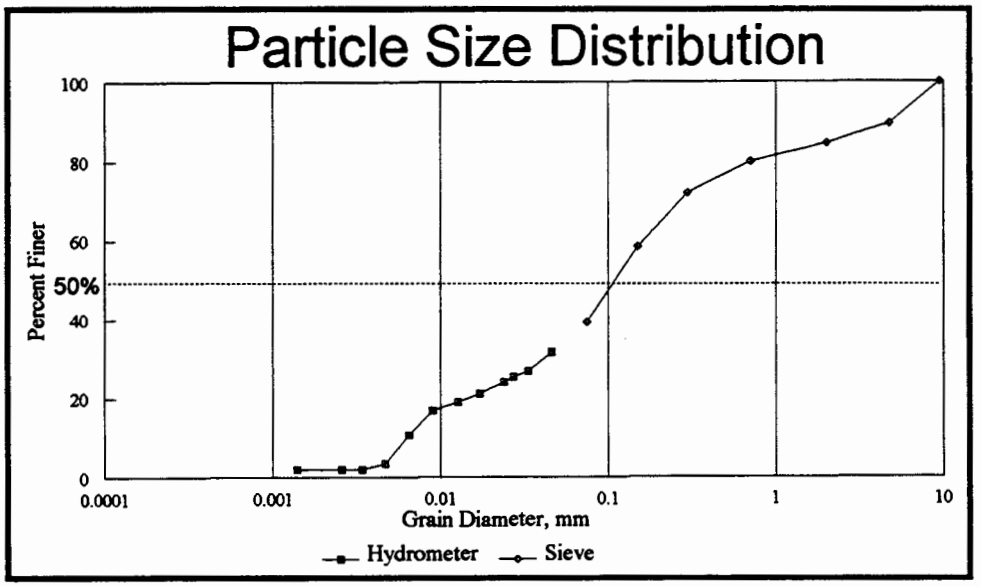
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	4
Wt. of sample (g)	57.72	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/16/93	10:10		21				Start			
12/16/93	10:11	1	21	49	45.2	78.3	8.2	8.18	0.0135	0.0386
12/16/93	10:12	2	21	45.5	41.7	72.2	8.8	4.38	0.0135	0.0282
12/16/93	10:13	3	21	44	40.2	69.6	9.0	3.00	0.0135	0.0234
12/16/93	10:14	4	21	42.5	38.7	67.0	9.2	2.31	0.0135	0.0205
12/16/93	10:18	8	21	35	31.2	54.1	10.5	1.31	0.0135	0.0154
12/16/93	10:25	15	21	19.5	15.7	27.2	13.0	0.87	0.0135	0.0126
12/16/93	10:40	30	21	6	2.2	3.8	15.2	0.51	0.0135	0.0096
12/16/93	11:10	60	21.5	5	1.2	2.1	15.4	0.26	0.0135	0.0068
12/16/93	12:10	120	22	5	1.4	2.4	15.4	0.13	0.0133	0.0048
12/16/93	14:10	240	22	5	1.4	2.4	15.4	0.06	0.0133	0.0034
12/16/93	17:00	410	22	5	1.4	2.4	15.4	0.04	0.0133	0.0026
12/17/93	09:20	1390	22	4.5	0.9	1.6	15.5	0.01	0.0133	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	91-B02
Analyst	GAT	Date	12/17/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			81.37	
Moisture content (%), wet wt. basis			11.70	
Wt. of dry sample, Ws (g)			71.85	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	7.52	10.47	89.5
10	2.000	3.65	5.08	84.5
25	0.710	3.32	4.62	79.8
50	0.300	5.69	7.92	71.9
100	0.150	9.71	13.51	58.4
200	0.075	13.86	19.29	39.1
Total Wt. retained (g)		43.75		

Summary

Mean particle size (mm)	0.117
Gravel (%) - retained on No. 4	10.5
Sand (%) - pass No. 4 & retained No. 200	50.4
Silt (%) - 0.074 to 0.005 mm	34.6
Clay (%) - smaller than 0.005 mm	4.5

Hydrometer Method

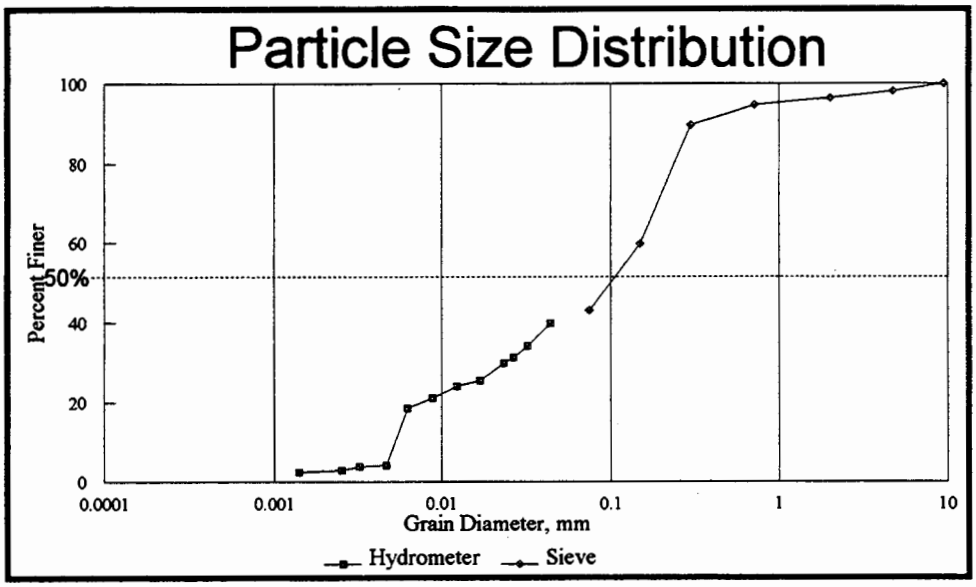
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5
Wt. of sample (g)	71.85	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/16/93	10:20		21				Start			
12/16/93	10:21	1	21	27.5	22.7	31.6	11.7	11.71	0.0135	0.0461
12/16/93	10:22	2	21	24	19.2	26.7	12.3	6.14	0.0135	0.0334
12/16/93	10:23	3	21	23	18.2	25.3	12.4	4.15	0.0135	0.0275
12/16/93	10:24	4	21	22	17.2	23.9	12.6	3.15	0.0135	0.0239
12/16/93	10:28	8	21	20	15.2	21.2	12.9	1.62	0.0135	0.0171
12/16/93	10:35	15	21	18.5	13.7	19.1	13.2	0.88	0.0135	0.0126
12/16/93	10:50	30	21	17	12.2	17.0	13.4	0.45	0.0135	0.0090
12/16/93	11:20	60	21.5	12.5	7.7	10.7	14.2	0.24	0.0135	0.0066
12/16/93	12:20	120	22	7	2.4	3.3	15.1	0.13	0.0133	0.0047
12/16/93	14:10	230	22	6	1.4	1.9	15.2	0.07	0.0133	0.0034
12/16/93	17:00	400	22	6	1.4	1.9	15.2	0.04	0.0133	0.0026
12/17/93	09:20	1380	22	6	1.4	1.9	15.2	0.01	0.0133	0.0014

14-Jan-94

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	129-B02(MW)
Analyst	JBO	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			92.44	
Moisture content (%), wet wt. basis			24.90	
Wt. of dry sample, Ws (g)			69.42	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	1.34	1.93	98.1
10	2.000	1.27	1.83	96.2
25	0.710	1.12	1.61	94.6
50	0.300	3.54	5.10	89.5
100	0.150	20.75	29.89	59.6
200	0.075	11.42	16.45	43.2
Total Wt. retained (g)		39.44		

Summary

Mean particle size (mm)	0.110
Gravel (%) - retained on No. 4	1.9
Sand (%) - pass No. 4 & retained No. 200	54.9
Silt (%) - 0.074 to 0.005 mm	36.3
Clay (%) - smaller than 0.005 mm	6.9

Hydrometer Method

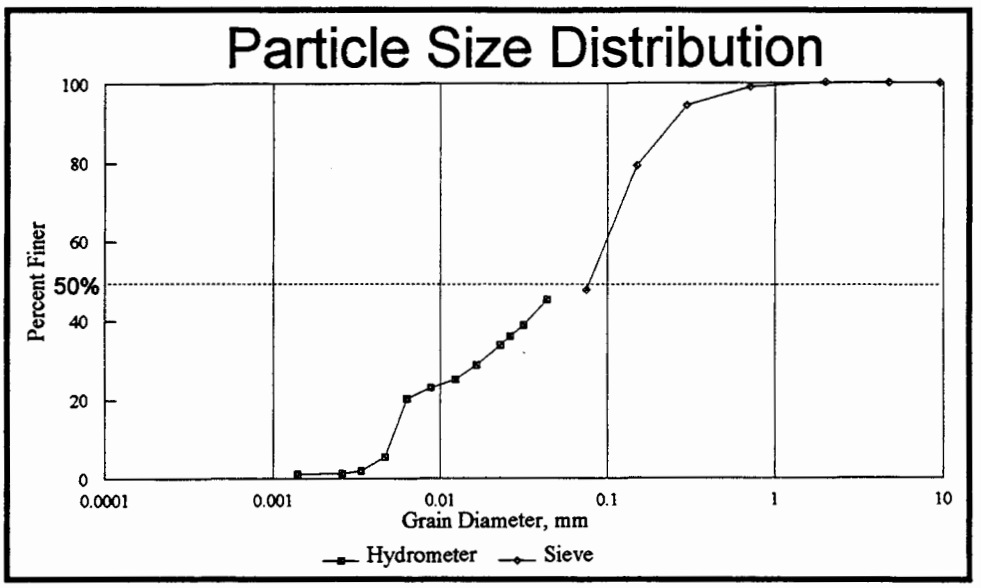
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5.5
Wt. of sample (g)	69.42	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/20/93	09:01		21.5				Start			
12/20/93	09:02	1	21.5	33	27.7	39.9	10.8	10.81	0.0135	0.0443
12/20/93	09:03	2	21.5	29	23.7	34.1	11.5	5.73	0.0135	0.0323
12/20/93	09:04	3	21.5	27	21.7	31.3	11.8	3.93	0.0135	0.0267
12/20/93	09:05	4	21.5	26	20.7	29.8	12.0	2.99	0.0135	0.0233
12/20/93	09:09	8	21.5	23	17.7	25.5	12.4	1.56	0.0135	0.0168
12/20/93	09:16	15	21.5	22	16.7	24.1	12.6	0.84	0.0135	0.0124
12/20/93	09:31	30	21.5	20	14.7	21.2	12.9	0.43	0.0135	0.0089
12/20/93	10:01	60	22	18	12.9	18.6	13.3	0.22	0.0133	0.0063
12/20/93	11:01	120	22	8	2.9	4.2	14.9	0.12	0.0133	0.0047
12/20/93	13:15	254	21	8	2.7	3.9	14.9	0.06	0.0135	0.0033
12/20/93	16:15	434	20	7.5	2	2.9	15.0	0.03	0.0136	0.0025
12/21/93	08:45	1424	19	7.5	1.7	2.4	15.0	0.01	0.0138	0.0014

22-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	164-B02
Analyst	GAT	Date	12/17/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			90.73	
Moisture content (%), wet wt. basis			22.70	
Wt. of dry sample, Ws (g)			70.13	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.00	0.00	100.0
25	0.710	0.74	1.06	98.9
50	0.300	3.22	4.59	94.4
100	0.150	10.63	15.16	79.2
200	0.075	22.13	31.55	47.6
Total Wt. retained (g)		36.72		

Summary

Mean particle size (mm)	0.081
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	52.4
Silt (%) - 0.074 to 0.005 mm	39.3
Clay (%) - smaller than 0.005 mm	8.3

Hydrometer Method

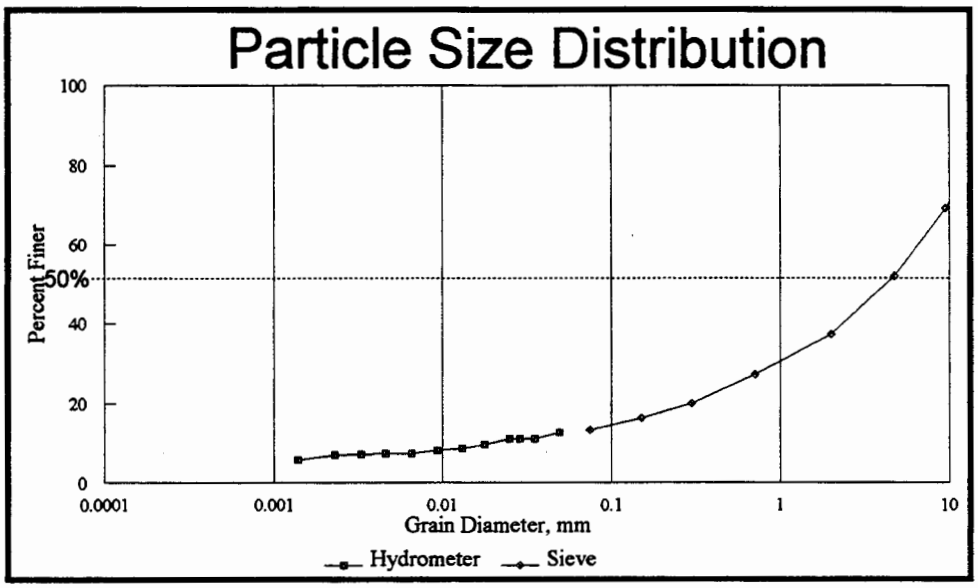
Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5
Wt. of sample (g)	70.13	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/16/93	10:15		21				Start			
12/16/93	10:16	1	21	36.5	31.7	45.2	10.2	10.23	0.0135	0.0431
12/16/93	10:17	2	21	32	27.2	38.8	11.0	5.48	0.0135	0.0316
12/16/93	10:18	3	21	30	25.2	35.9	11.3	3.77	0.0135	0.0262
12/16/93	10:19	4	21	28.5	23.7	33.8	11.5	2.89	0.0135	0.0229
12/16/93	10:23	8	21	25	20.2	28.8	12.1	1.51	0.0135	0.0166
12/16/93	10:30	15	21	22.5	17.7	25.2	12.5	0.84	0.0135	0.0123
12/16/93	10:45	30	21	21	16.2	23.1	12.8	0.43	0.0135	0.0088
12/16/93	11:15	60	21.5	19	14.2	20.2	13.1	0.22	0.0135	0.0063
12/16/93	12:15	120	22	8.5	3.9	5.6	14.8	0.12	0.0133	0.0047
12/16/93	14:10	235	22	6	1.4	2.0	15.2	0.06	0.0133	0.0034
12/16/93	17:00	405	22	5.5	0.9	1.3	15.3	0.04	0.0133	0.0026
12/17/93	09:20	1385	22	5.5	0.9	1.3	15.3	0.01	0.0133	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	56-B03
Analyst	GST	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			103.23	
Moisture content (%), wet wt. basis			1.90	
Wt. of dry sample, Ws (g)			101.27	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	10.11	9.98	90.0
0.375	9.500	21.12	20.86	69.2
4	4.750	17.43	17.21	51.9
10	2.000	14.86	14.67	37.3
25	0.710	10.24	10.11	27.2
50	0.300	7.29	7.20	20.0
100	0.150	3.80	3.75	16.2
200	0.075	3.09	3.05	13.2
Total Wt. retained (g)		87.94		

Summary

Mean particle size (mm)	4.390
Gravel (%) - retained on No. 4	48.1
Sand (%) - pass No. 4 & retained No. 200	38.7
Silt (%) - 0.074 to 0.005 mm	5.9
Clay (%) - smaller than 0.005 mm	7.3

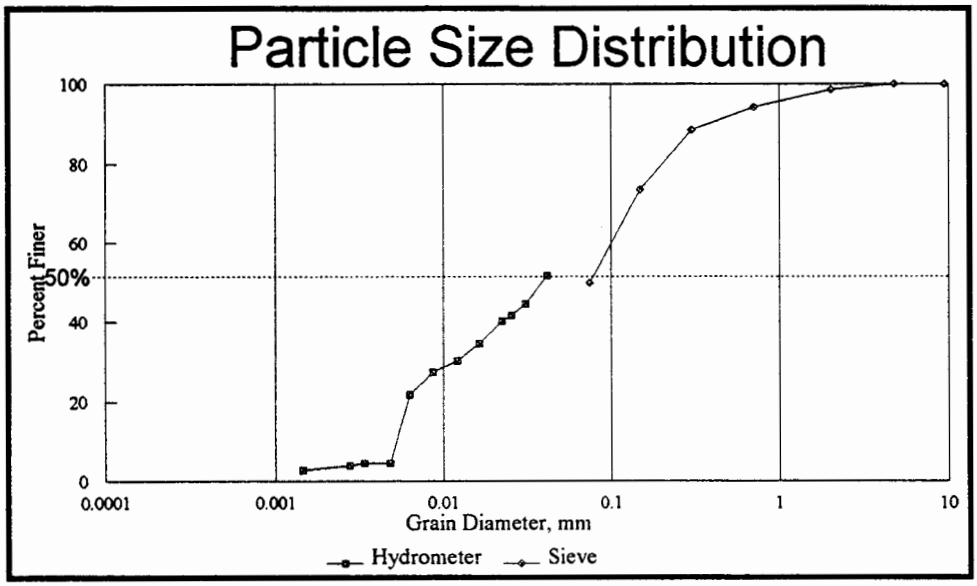
Hydrometer Method

Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 4
Wt. of sample (g)	101.27	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/20/93	09:17		21.5				Start			
12/20/93	09:18	1	21.5	16.5	12.7	12.5	13.5	13.51	0.0135	0.0496
12/20/93	09:19	2	21.5	15	11.2	11.1	13.8	6.88	0.0135	0.0354
12/20/93	09:20	3	21.5	15	11.2	11.1	13.8	4.59	0.0135	0.0289
12/20/93	09:21	4	21.5	15	11.2	11.1	13.8	3.44	0.0135	0.0250
12/20/93	09:25	8	21.5	13.5	9.7	9.6	14.0	1.75	0.0135	0.0178
12/20/93	09:32	15	21.5	12.5	8.7	8.6	14.2	0.94	0.0135	0.0131
12/20/93	09:47	30	21.5	12	8.2	8.1	14.2	0.47	0.0135	0.0093
12/20/93	10:17	60	22	11	7.4	7.3	14.4	0.24	0.0133	0.0065
12/20/93	11:19	122	22	11	7.4	7.3	14.4	0.12	0.0133	0.0046
12/20/93	13:18	241	21	11	7.2	7.1	14.4	0.06	0.0135	0.0033
12/20/93	17:47	510	20	11	7	6.9	14.4	0.03	0.0136	0.0023
12/21/93	09:10	1433	19	10	5.7	5.6	14.6	0.01	0.0138	0.0014

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	71-B05
Analyst	JBO	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			90.95	
Moisture content (%), wet wt. basis			23.10	
Wt. of dry sample, Ws (g)			69.94	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	1.06	1.52	98.5
25	0.710	3.03	4.33	94.2
50	0.300	3.98	5.69	88.5
100	0.150	10.45	14.94	73.5
200	0.075	16.52	23.62	49.9
Total Wt. retained (g)		35.04		

Summary

Mean particle size (mm)	0.040
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	50.1
Silt (%) - 0.074 to 0.005 mm	43.0
Clay (%) - smaller than 0.005 mm	6.9

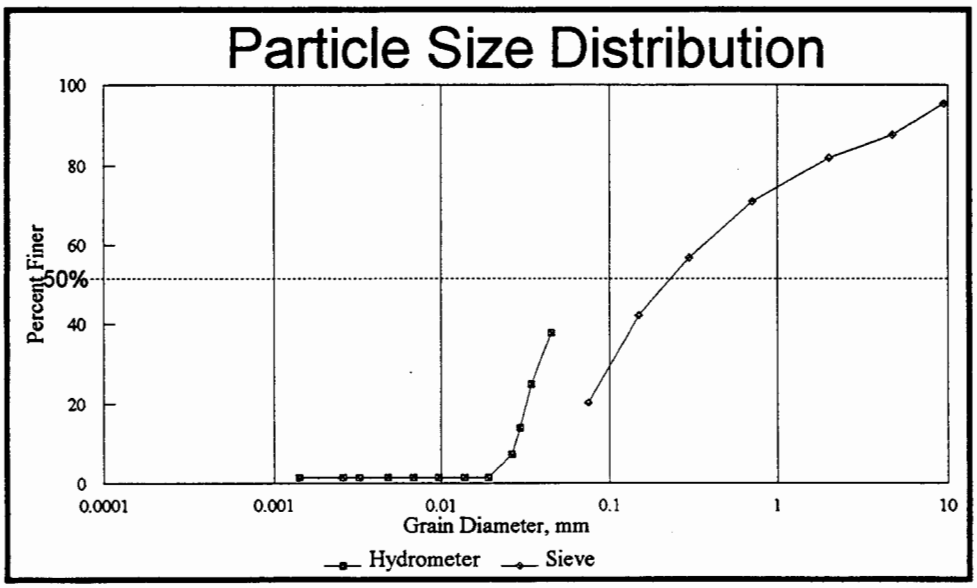
Hydrometer Method

Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	4
Wt. of sample (g)	69.94	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	10:01		21				Start			
12/15/93	10:02	1	21	40	36.2	51.8	9.7	9.66	0.0135	0.0419
12/15/93	10:03	2	21	35	31.2	44.6	10.5	5.24	0.0135	0.0309
12/15/93	10:04	3	21	33	29.2	41.7	10.8	3.60	0.0135	0.0256
12/15/93	10:05	4	21	32	28.2	40.3	11.0	2.74	0.0135	0.0223
12/15/93	10:09	8	21	28	24.2	34.6	11.6	1.45	0.0135	0.0163
12/15/93	10:16	15	21	25	21.2	30.3	12.1	0.81	0.0135	0.0121
12/15/93	10:31	30	21	23	19.2	27.5	12.4	0.41	0.0135	0.0087
12/15/93	11:01	60	21	19	15.2	21.7	13.1	0.22	0.0135	0.0063
12/15/93	11:59	118	21	7	3.2	4.6	15.1	0.13	0.0135	0.0048
12/15/93	14:00	239	21	7	3.2	4.6	15.1	0.06	0.0135	0.0034
12/15/93	16:00	359	21	6.5	2.7	3.9	15.1	0.04	0.0135	0.0028
12/16/93	08:30	1349	20	6	2	2.9	15.2	0.01	0.0136	0.0015

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	179-B08
Analyst	GST	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			86.51	
Moisture content (%), wet wt. basis			20.70	
Wt. of dry sample, Ws (g)			68.60	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	3.18	4.64	95.4
4	4.750	5.32	7.75	87.6
10	2.000	3.91	5.70	81.9
25	0.710	7.56	11.02	70.9
50	0.300	9.70	14.14	56.8
100	0.150	9.97	14.53	42.2
200	0.075	15.14	22.07	20.1
Total Wt. retained (g)		54.78		

Summary

Mean particle size (mm)	0.230
Gravel (%) - retained on No. 4	12.4
Sand (%) - pass No. 4 & retained No. 200	67.5
Silt (%) - 0.074 to 0.005 mm	18.6
Clay (%) - smaller than 0.005 mm	1.5

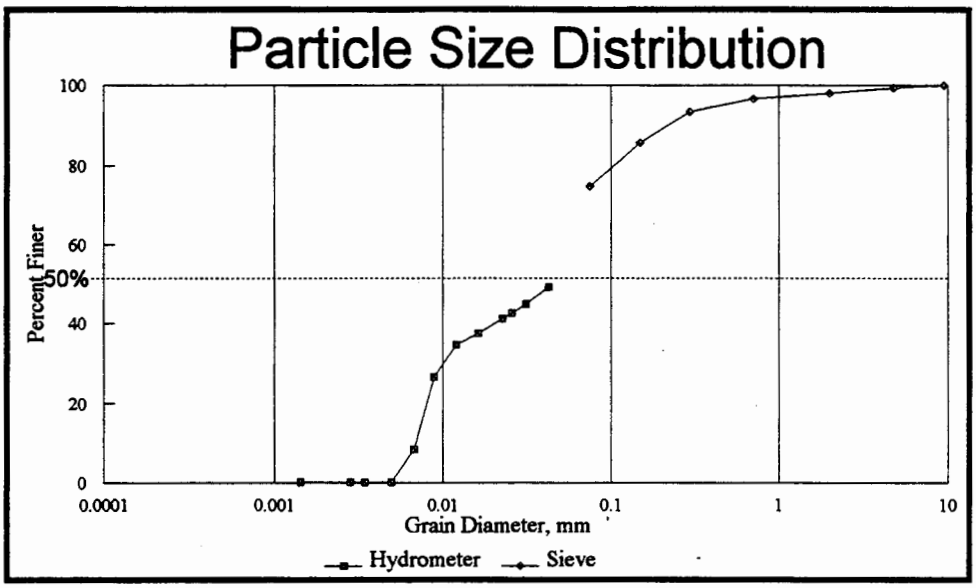
Hydrometer Method

Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	6
Wt. of sample (g)	68.60	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	09:37		20				Start			
12/15/93	09:38	1	20	32	26	37.9	11.0	10.97	0.0136	0.0452
12/15/93	09:39	2	20	23	17	24.8	12.4	6.22	0.0136	0.0340
12/15/93	09:40	3	20	15.5	9.5	13.8	13.7	4.56	0.0136	0.0291
12/15/93	09:41	4	20	11	5	7.3	14.4	3.60	0.0136	0.0259
12/15/93	09:45	8	20	7	1	1.5	15.1	1.88	0.0136	0.0187
12/15/93	09:52	15	20	7	1	1.5	15.1	1.00	0.0136	0.0137
12/15/93	10:07	30	20	7	1	1.5	15.1	0.50	0.0136	0.0097
12/15/93	10:37	60	20	7	1	1.5	15.1	0.25	0.0136	0.0068
12/15/93	11:37	120	20.5	7	1	1.5	15.1	0.13	0.0136	0.0048
12/15/93	14:02	265	20.5	7	1	1.5	15.1	0.06	0.0136	0.0033
12/15/93	16:33	416	20	7	1	1.5	15.1	0.04	0.0136	0.0026
12/16/93	09:00	1403	20	7	1	1.5	15.1	0.01	0.0136	0.0014

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	AOC-U-01
Analyst	GST	Date	12/21/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			93.97	
Moisture content (%), wet wt. basis			27.10	
Wt. of dry sample, Ws (g)			68.50	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.49	0.72	99.3
10	2.000	0.86	1.26	98.0
25	0.710	0.97	1.42	96.6
50	0.300	2.22	3.24	93.4
100	0.150	5.29	7.72	85.7
200	0.075	7.44	10.86	74.8
Total Wt. retained (g)		17.27		

Summary

Mean particle size (mm)	0.043
Gravel (%) - retained on No. 4	0.7
Sand (%) - pass No. 4 & retained No. 200	24.5
Silt (%) - 0.074 to 0.005 mm	74.5
Clay (%) - smaller than 0.005 mm	0.3

Hydrometer Method

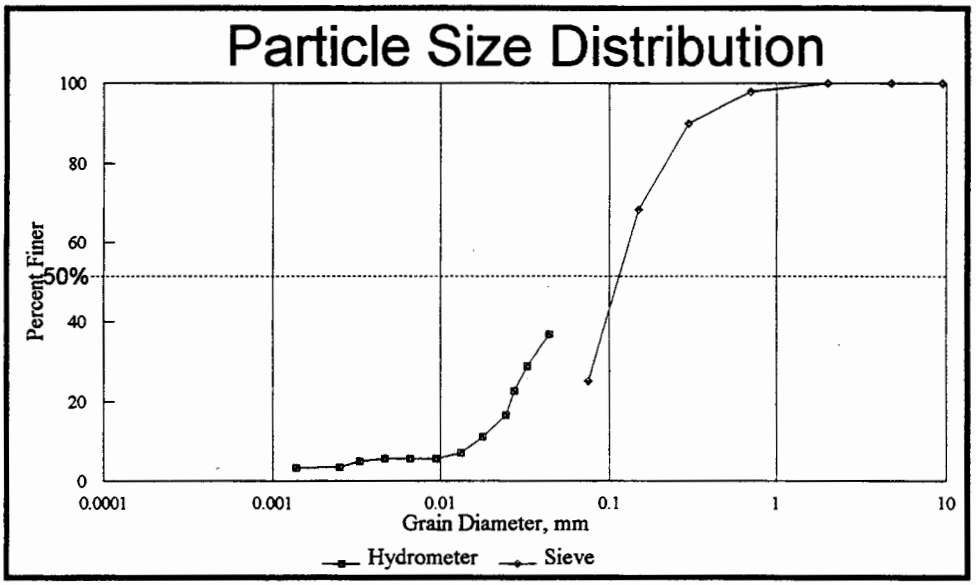
Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 6
Wt. of sample (g)	68.50	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/21/93	09:26		19				Start			
12/21/93	09:27	1	19	40	33.7	49.2	9.7	9.66	0.0138	0.0429
12/21/93	09:28	2	19	37	30.7	44.8	10.1	5.07	0.0138	0.0311
12/21/93	09:29	3	19	35.5	29.2	42.6	10.4	3.47	0.0138	0.0257
12/21/93	09:30	4	19	34.5	28.2	41.2	10.6	2.64	0.0138	0.0224
12/21/93	09:34	8	19	32	25.7	37.5	11.0	1.37	0.0138	0.0162
12/21/93	09:41	15	19	30	23.7	34.6	11.3	0.75	0.0138	0.0120
12/21/93	09:56	30	19	24.5	18.2	26.6	12.2	0.41	0.0138	0.0088
12/21/93	10:26	60	19	12	5.7	8.3	14.2	0.24	0.0138	0.0067
12/21/93	11:23	117	19	6.5	0.2	0.3	15.1	0.13	0.0138	0.0050
12/21/93	13:30	244	19.5	6.5	0.2	0.3	15.1	0.06	0.0138	0.0034
12/21/93	15:30	364	19.5	6.5	0.2	0.3	15.1	0.04	0.0138	0.0028
12/22/93	09:18	1432	19	6.5	0.2	0.3	15.1	0.01	0.0138	0.0014

22-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	AOC-U-02
Analyst	GST	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			99.66	
Moisture content (%), wet wt. basis			26.10	
Wt. of dry sample, Ws (g)			73.65	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.06	0.08	99.9
25	0.710	1.52	2.06	97.9
50	0.300	5.89	8.00	89.9
100	0.150	15.78	21.43	68.4
200	0.075	31.94	43.37	25.1
Total Wt. retained (g)		55.19		

Summary

Mean particle size (mm)	0.118
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	74.9
Silt (%) - 0.074 to 0.005 mm	19.4
Clay (%) - smaller than 0.005 mm	5.7

Hydrometer Method

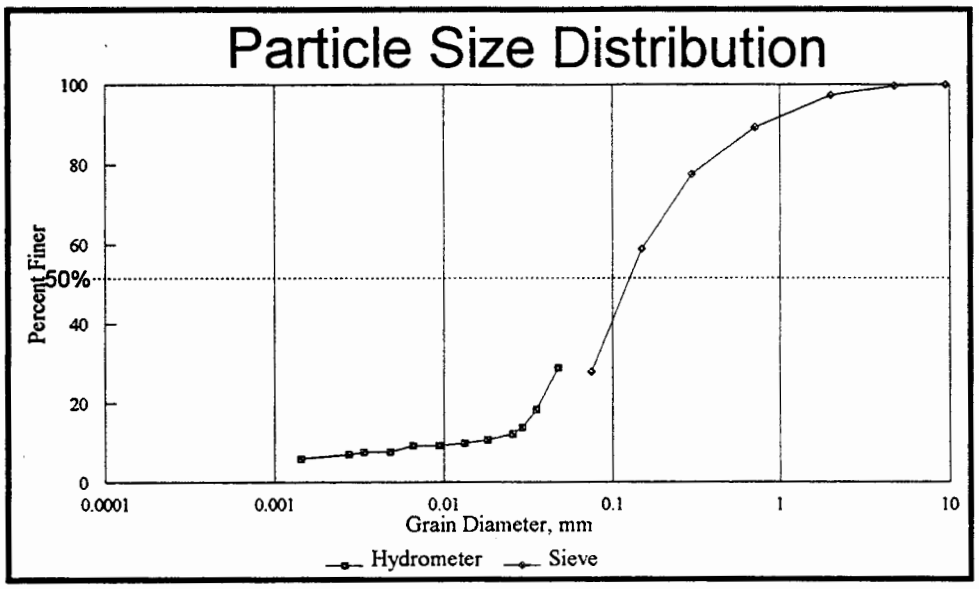
Specific gravity	2.65	
a, corr. factor	1.00	Zero correction 6
Wt. of sample (g)	73.65	Meniscus correction 0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	09:34		21				Start			
12/15/93	09:35	1	21	33	27.2	36.9	10.8	10.81	0.0135	0.0443
12/15/93	09:36	2	21	27	21.2	28.8	11.8	5.89	0.0135	0.0327
12/15/93	09:37	3	21	22.5	16.7	22.7	12.5	4.18	0.0135	0.0276
12/15/93	09:38	4	21	18	12.2	16.6	13.3	3.32	0.0135	0.0246
12/15/93	09:42	8	21	14	8.2	11.1	13.9	1.74	0.0135	0.0178
12/15/93	09:49	15	21	11	5.2	7.1	14.4	0.96	0.0135	0.0132
12/15/93	10:04	30	21	10	4.2	5.7	14.6	0.49	0.0135	0.0094
12/15/93	10:34	60	21	10	4.2	5.7	14.6	0.24	0.0135	0.0066
12/15/93	11:36	122	21	10	4.2	5.7	14.6	0.12	0.0135	0.0047
12/15/93	13:36	242	21	9.5	3.7	5.0	14.7	0.06	0.0135	0.0033
12/15/93	16:38	424	21	8.5	2.7	3.7	14.8	0.03	0.0135	0.0025
12/16/93	09:14	1420	20	8.5	2.5	3.4	14.8	0.01	0.0136	0.0014

17-Dec-93

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	AOC-U-03
Analyst	JBO	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			102.36	
Moisture content (%), wet wt. basis			35.00	
Wt. of dry sample, Ws (g)			66.53	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.25	0.38	99.6
10	2.000	1.57	2.36	97.3
25	0.710	5.29	7.95	89.3
50	0.300	7.82	11.75	77.6
100	0.150	12.37	18.59	59.0
200	0.075	20.75	31.19	27.8
Total Wt. retained (g)		48.05		

Summary

Mean particle size (mm)	0.128
Gravel (%) - retained on No. 4	0.4
Sand (%) - pass No. 4 & retained No. 200	71.8
Silt (%) - 0.074 to 0.005 mm	19.8
Clay (%) - smaller than 0.005 mm	8.0

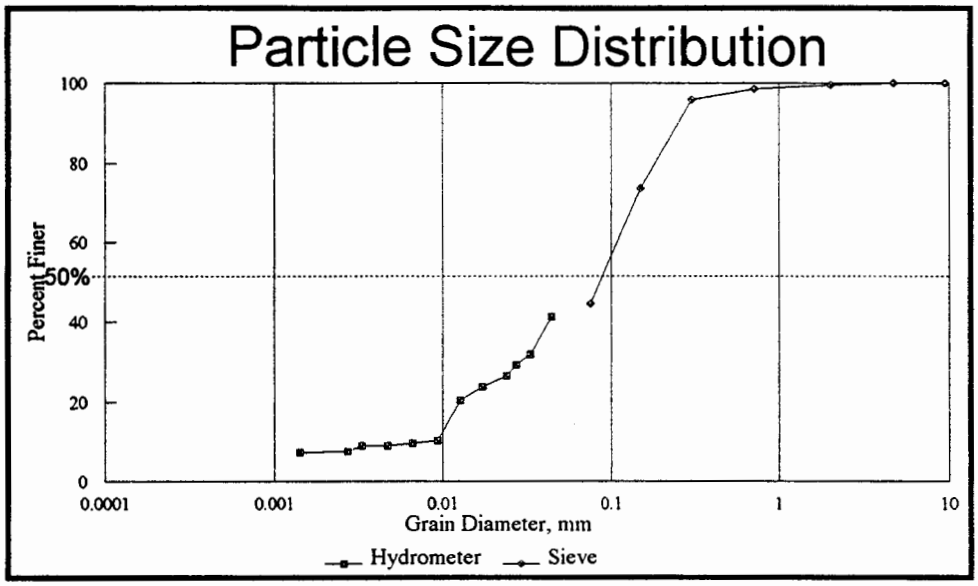
Hydrometer Method

Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	4
Wt. of sample (g)	66.53	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	10:03		21				Start			
12/15/93	10:04	1	21	23	19.2	28.9	12.4	12.44	0.0135	0.0476
12/15/93	10:05	2	21	16	12.2	18.3	13.6	6.80	0.0135	0.0351
12/15/93	10:06	3	21	13	9.2	13.8	14.1	4.69	0.0135	0.0292
12/15/93	10:07	4	21	12	8.2	12.3	14.2	3.56	0.0135	0.0254
12/15/93	10:11	8	21	11	7.2	10.8	14.4	1.80	0.0135	0.0181
12/15/93	10:18	15	21	10.5	6.7	10.1	14.5	0.97	0.0135	0.0133
12/15/93	10:33	30	21	10	6.2	9.3	14.6	0.49	0.0135	0.0094
12/15/93	11:03	60	21	10	6.2	9.3	14.6	0.24	0.0135	0.0066
12/15/93	11:59	116	21	9	5.2	7.8	14.7	0.13	0.0135	0.0048
12/15/93	14:00	237	21	9	5.2	7.8	14.7	0.06	0.0135	0.0034
12/15/93	16:00	357	21	8.5	4.7	7.1	14.8	0.04	0.0135	0.0027
12/16/93	08:30	1347	20	8	4	6.0	14.9	0.01	0.0136	0.0014

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	AOC-U-04
Analyst	JBO	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			102.01	
Moisture content (%), wet wt. basis			27.20	
Wt. of dry sample, Ws (g)			74.26	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.34	0.46	99.5
25	0.710	0.67	0.90	98.6
50	0.300	2.07	2.79	95.9
100	0.150	16.52	22.25	73.6
200	0.075	21.61	29.10	44.5
Total Wt. retained (g)		41.21		

Summary

Mean particle size (mm)	0.090
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	55.5
Silt (%) - 0.074 to 0.005 mm	35.4
Clay (%) - smaller than 0.005 mm	9.1

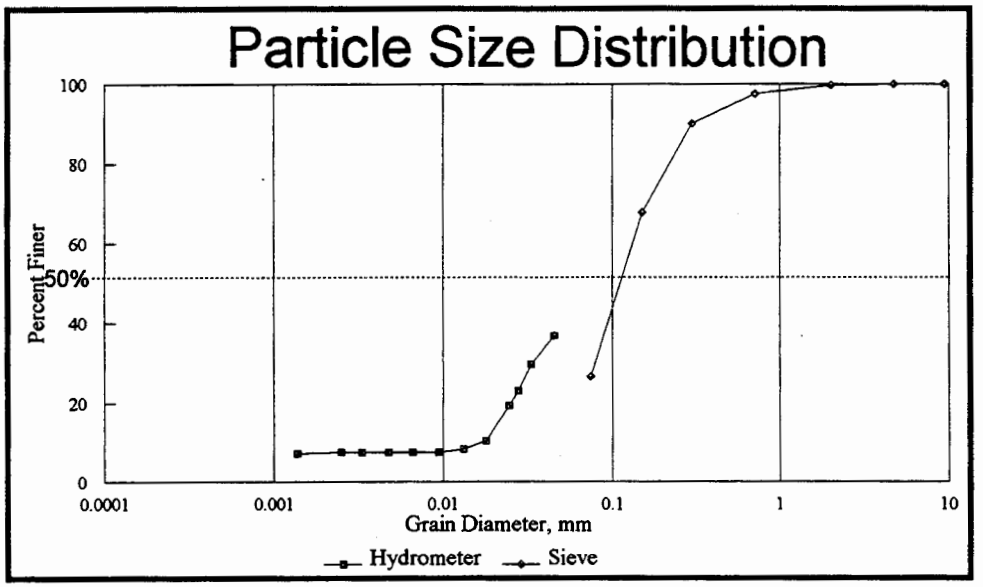
Hydrometer Method

Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	3.5
Wt. of sample (g)	74.26	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	09:59		21				Start			
12/15/93	10:00	1	21	34	30.7	41.3	10.6	10.64	0.0135	0.0440
12/15/93	10:01	2	21	27	23.7	31.9	11.8	5.89	0.0135	0.0327
12/15/93	10:02	3	21	25	21.7	29.2	12.1	4.04	0.0135	0.0271
12/15/93	10:03	4	21	23	19.7	26.5	12.4	3.11	0.0135	0.0238
12/15/93	10:07	8	21	21	17.7	23.8	12.8	1.60	0.0135	0.0170
12/15/93	10:14	15	21	18.5	15.2	20.5	13.2	0.88	0.0135	0.0126
12/15/93	10:29	30	21	11	7.7	10.4	14.4	0.48	0.0135	0.0093
12/15/93	10:59	60	21	10.5	7.2	9.7	14.5	0.24	0.0135	0.0066
12/15/93	11:59	120	21	10	6.7	9.0	14.6	0.12	0.0135	0.0047
12/15/93	14:00	241	21	10	6.7	9.0	14.6	0.06	0.0135	0.0033
12/15/93	16:00	361	21	9	5.7	7.7	14.7	0.04	0.0135	0.0027
12/16/93	08:30	1351	20	9	5.5	7.4	14.7	0.01	0.0136	0.0014

Particle Size Distribution by Mechanical and Hydrometer Methods

Project	Holloman AFB	Sample ID	AOC-U-05
Analyst	GST	Date	12/16/93



Mechanical (Sieve) Method

Wt. of wet sample (g)			94.72	
Moisture content (%), wet wt. basis			28.00	
Wt. of dry sample, Ws (g)			68.20	
Sieve no.	Diam. (mm)	Wt. ret'd	% ret'd	% passing
0.75	19.000	0.00	0.00	100.0
0.375	9.500	0.00	0.00	100.0
4	4.750	0.00	0.00	100.0
10	2.000	0.24	0.35	99.6
25	0.710	1.36	1.99	97.7
50	0.300	5.14	7.54	90.1
100	0.150	15.22	22.32	67.8
200	0.075	28.12	41.23	26.6
Total Wt. retained (g)		50.08		

Summary

Mean particle size (mm)	0.118
Gravel (%) - retained on No. 4	0.0
Sand (%) - pass No. 4 & retained No. 200	73.4
Silt (%) - 0.074 to 0.005 mm	19.0
Clay (%) - smaller than 0.005 mm	7.6

Hydrometer Method

Specific gravity	2.65		
a, corr. factor	1.00	Zero correction	5
Wt. of sample (g)	68.20	Meniscus correction	0.5

Date mm/dd/yy	Time hh:mm	Elapsed Time minutes	Temperature °C	Actual Hyd. Reading Ra	Corrected Hyd. Reading Rc	% Finer	L	L/t	K	Diameter mm
12/15/93	09:40		21				Start			
12/15/93	09:41	1	21	30	25.2	37.0	11.3	11.30	0.0135	0.0453
12/15/93	09:42	2	21	25	20.2	29.6	12.1	6.06	0.0135	0.0332
12/15/93	09:43	3	21	20.5	15.7	23.0	12.9	4.28	0.0135	0.0279
12/15/93	09:44	4	21	18	13.2	19.4	13.3	3.32	0.0135	0.0246
12/15/93	09:48	8	21	12	7.2	10.6	14.2	1.78	0.0135	0.0180
12/15/93	09:55	15	21	10.5	5.7	8.4	14.5	0.97	0.0135	0.0133
12/15/93	10:10	30	21	10	5.2	7.6	14.6	0.49	0.0135	0.0094
12/15/93	10:40	60	21	10	5.2	7.6	14.6	0.24	0.0135	0.0066
12/15/93	11:36	116	21	10	5.2	7.6	14.6	0.13	0.0135	0.0048
12/15/93	13:36	236	21	10	5.2	7.6	14.6	0.06	0.0135	0.0034
12/15/93	16:38	418	21	10	5.2	7.6	14.6	0.03	0.0135	0.0025
12/16/93	09:14	1414	20	10	5	7.3	14.6	0.01	0.0136	0.0014

17-Dec-93