FINAL

REMEDIAL ACTION/CLOSURE REPORT
OLD SMALL ARMS RANGE (SITE SS-033)

PLATTSBURGH AIR FORCE BASE
PLATTSBURGH, NEW YORK

AFCEE Contract No. F41624-97-D-8011
Delivery Order No. 0027

***Prepared for*:**

Air Force Center for Environmental Excellence (AFCEE)
Environmental Restoration Division
Brooks Air Force Base, Texas

and the

Air Force Real Property Agency
Plattsburgh Air Force Base, New York

***Prepared by*:**

Versar, Inc.

201 Gibraltar Rd. Suite 100
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August 2003

DRAFT CLOSURE REPORT
OLD SMALL ARMS RANGE (SS-033)

RESPONSE TO NYSDEC COMMENTS (letter dated March 31, 2003)

1. ***Page iii*** *– ROD should be added to List of Acronyms and Abbreviations.*

Response: ROD was added to the List of Acronyms and Abbreviations.

2. ***Page 1*** *– ROD should be spelled out in the first sentence.*

Response: ROD was spelled out in the first sentence.

3. ***Page 3*** *– "Range" should be inserted after "Arms" in the first sentence of Section 2.3.*

Response: The word "Range" was inserted after "Arms" in the first sentence of Section 2.3.

4. ***Page 6*** *– Was seed applied after regrading?*

Response: Yes, ryegrass was dispersed over the excavation area. The area is currently overgrown by weeds native to the area.

5. ***Page 11*** *-- The reference to a NYSDEC "Bureau of Hazardous Waste Remediation" should be corrected to Division of Hazardous Waste Remediation." The document may also note that this NYSDEC division has been re-named as the Division of Environmental Remediation.*

Response: Page 11 was corrected to read "Division of Hazardous Waste Remediation" and the re-naming as the Division of Environmental Remediation noted in the text.

6. ***Figures 4 and 5*** *– Figures 4 and 5 apparently show an identical extent of excavation, although the text indicates that Figure 5 should show an excavation area greater than that shown in Figure 4 (due to the removal of additional soil after a failed sidewall sample for arsenic). Figure 5 should be revised or an explanation provided in the text.*

Response: Figures 4 and 5 have been revised to show the areas of additional excavation as compared to the original excavation in October 2001.

NOTE: USEPA in their letter dated July 24, 2003 stated that they had no comments.

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFRPA	Air Force Real Property Agency
AFCEE	Air Force Center for Environmental Excellence
amsl	above mean sea level
ARAR	Applicable or Relevant and Appropriate Requirement
AST	above ground storage tank
BTEX	benzene, toluene, ethyl benzene, xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOD	Department of Defense
EE/CA	Engineering Evaluation/Cost Analysis
EPA	U.S. Environmental Protection Agency
FFA	Federal Facilities Agreement
FSP	Field Sampling Plan
HASP	Health and Safety Plan
HQ	Headquarters
IRP	Installation Restoration Program
MTBE	methyl tertiary butyl ether
NCP	National Contingency Plan
NFA	No Further Action
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
PAH	polycyclic aromatic hydrocarbons
PARC	Plattsburgh Airbase Redevelopment Corporation
RAB	Restoration Advisory Board
RCO	Recommended Cleanup Objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
SARA	Superfund Amendments and Reauthorization Act
SI	Site Investigation
SS	Spill Site
SSEHSP	Site-Specific Environmental Health and Safety Plan
SVOC	Semi-Volatile Organic Compounds
TAGM	Technical and Administrative Guidance Memorandum
TCLP	Toxicity Characteristic Leaching Procedure
USAF	United States Air Force
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound
WP	Work Plan

LIST OF UNITS OF MEASURE

bgs	below ground surface
ft/ft	foot/feet
ft^2	square feet
ft/d	feet per day
gpm	gallons per minute
K_{oc}	organic carbon-water partition coefficient
L	liter
mg	milligram
MSL	mean sea level
ppb	parts per billion
ppm	parts per million
µg/kg	micrograms per kilogram
µg/l	micrograms/liter
$\mu g/m^3$	micrograms per cubic meter
yd^3	cubic yard

1.0 INTRODUCTION

1.1 Background

This Closure Report summarizes the activities performed to remove arsenic-contaminated soil at the Old Small Arms Range (also referred to as SS-033) at Plattsburgh Air Force Base (PAFB), New York in accordance with the Record of Decision (ROD) (March 2001). This work was performed for the Air Force Center for Environmental Excellence (AFCEE), Brooks Air Force Base, Texas by Versar, Inc. (Versar) under Contract No. F41624-97-D-8011, Delivery Order (DO) 0027.

The United States Air Force (USAF) performed a remedial action of arsenic-contaminated soil from the Old Small Arms Range as directed in the ROD. This remedial action was performed pursuant to the Federal Facilities Agreement (FFA), as a part of the Department of Defense (DOD) Installation Restoration Program (IRP). The IRP was developed as a component of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. The IRP at Plattsburgh AFB is currently being administered by the Air Force Real Property Agency (AFRPA) and implemented according to an interagency FFA (Docket No. II-CERCLA-FFA-102001) among the USAF, the United States Environmental Protection Agency (USEPA), and the New York State Department of Environmental Conservation (NYSDEC).

1.2 Report Organization

Section 1.0 presents an Introduction. Section 2.0 provides background information and a general description of the Old Small Arms Range. Section 3.0 describes the field activities. Section 4.0 summarizes the analytical results of the confirmatory and characterization sampling. Section 5.0 discusses the management of waste material. Section 6.0 presents the conclusions and recommendations. Section 7.0 provides a list of references.

2.0 SITE BACKGROUND AND ENVIRONMENTAL SETTING

2.1 Site Description and History

Plattsburgh Air Force Base (PAFB) is located in Clinton County in the northeastern corner of New York State (**Figure 1**). The AFB is bordered by the City of Plattsburgh to the north, Lake Champlain to the east, lake shore residential communities to the southeast, the Salmon River and agricultural land to the south, and Interstate 87 to the west. On November 21, 1989, PAFB was placed on the National Priority List (NPL) by USEPA. On July 10, 1991, the USAF entered into an interagency Federal Facilities Agreement with the USEPA and the NYSDEC to implement the Installation Restoration Program (IRP). The base, formerly the home of the 380th Air Refueling Wing, officially closed on September 30, 1995. The former base is currently the responsibility of the AFRPA and the Plattsburgh Airbase Redevelopment Corporation (PARC).

Site SS-033 operated as a small arms firing range from 1960 through November 1989. The range was dismantled in the early 1990's. It consisted of 20 firing stalls facing a high backstop embankment used to stop fired rounds. The target line was located at the base of the embankment. Lead contamination resulted from the fired discharges and bullet remnants. The impacted area is the soil along the backstop embankment of the Old Small Arms Range, SS-033.

2.1.1 Site Location

SS-033 is located in the northwestern portion of the Plattsburgh AFB. The entire site consists of the firing line and backstop and is approximately 20,000 ft^2 in size. Route 22 and Interstate 87 border the site to the west and Route 22 borders the site to the north. Land uses near Plattsburgh AFB include residential, commercial, industrial and recreational.

2.1.2 Physical Features

SS-033 consists of an open area with a 120 ft. long by 35 ft. high embankment in the southern portion of the site. The site slopes sharply from the south at elevations ranging from 270 to 230 feet above mean sea level (amsl).

2.1.3 Site Stratigraphy

Stratigraphy in the SS-033 area generally consists of four hydrogeologic units: 1) an upper unconsolidated sand aquifer; 2) an underlying confining layer formed by a silt and clay unit; 3) a glacial till unit; and 4) a thinly bedded dolomite bedrock aquifer. The shallow sand aquifer consists of fine to medium grain sand with variable amounts of silt, coarse sand and gravel. The groundwater in some areas of the site is 2 to 5 feet below ground surface. This shallow aquifer ranges from 10 to 30 feet thick in the vicinity of the site. The sand unit typically becomes finer grained with depth, grading into the underlying silt and clay unit.

A gray silty clay unit lies beneath the unconfined sand aquifer and is approximately 6 to 10 feet thick in the area of the site. Glacial till overlies the bedrock in the vicinity of the site and consists of poorly sorted gray sand, silt and a clay matrix intermixed with gravel, cobbles and boulders. The till is reported to be 3 to 15 feet thick. The till is a water bearing unit, however, it is separated hydraulically from the overlying water table aquifer by the silty-clay confining unit. The bedrock, which underlies the till in the area, is described as thinly, horizontally to sub-horizontally, bedded dolomite.

2.1.4 Site Hydrology

Groundwater in the Plattsburgh area generally occurs in both the overburden deposits (unconfined aquifer) and in the bedrock (confined aquifer). The Adirondack Mountains to the west and south of Plattsburgh represent the major recharge area for the region, and Lake Champlain represents the regional discharge area. Other locally significant discharge areas include the Salmon and the Saranac Rivers.

Plattsburgh AFB obtains its potable water from the City of Plattsburgh municipal water system. Some residences adjacent to the base rely on private wells for drinking water. These private wells are not likely to be influenced by groundwater conditions present at the site because local groundwater flow is away from the residential wells and towards the Salmon and the Saranac Rivers.

2.2 Previous Investigations and Remediation Activities

The Air Force and its subcontractors conducted several investigative surveys of the area. It was first sampled in 1992, which prompted the 1993 removal action to excavate lead-contaminated soils, bullets and bullet fragments from the backstop embankment. A Site Investigation (SI) (URS, 1995) was initiated that led to a second removal action in 1997. OHM removed 614 tons of lead-contaminated soil. A supplemental sampling event (URS, 2000) was conducted along the embankment that identified arsenic contamination in subsurface samples at depths of 1 to 1.5 feet. Arsenic levels as high as 43.3 mg/kg were observed, exceeding the NYSDEC TAGM 4046 (Appendix A, Table 4, Column 5) recommended cleanup objective (RCO) of 7.5 mg/kg. The arsenic contamination appeared to be associated with the imported fill material used for backfill during the 1993 removal action. The former OHM excavation is outlined in **Figure 2**.

2.3 National Priorities List Status

Plattsburgh AFB has been listed on the National Priorities List (NPL) since November 1989. Multiple locations within the base are of concern, including the Old Small Arms Range Site, SS-033. The remedial action discussed in this Closure Report addresses the mitigation activities performed to achieve final closure of the Old Small Arms Range, SS-033.

3.0 REMEDIATION NARRATIVE

Project plans were prepared to support the remedial activities, including a Work Plan (WP), Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP) and Site-Specific Environmental Health and Safety Plan (SSEHSP). The WP was submitted to the NYSDEC and USEPA for review in July 2001. After regulatory comments were addressed, the WP was finalized in October 2001, which served as the basis for the remedial activities. Versar mobilized to the site on November 14, 2001. **Appendix A**, Photographic Log, provides photographs of the field activities.

3.1 Site Preparation

During this remedial action, the following site preparation activities were conducted:

- Access to site for VERSAR representatives and subcontractors was coordinated with AFCEE personnel and Plattsburgh AFB security;
- A utilities mark-out was requested for all active underground lines. No electric, communications, gas lines or other sensitive site features were identified;
- Containment areas were constructed with Visqueen and hay bales to stage excavated soil for characterization; and
- No clearing or grubbing was necessary.

3.2 Health and Safety

The VERSAR Field Team Leader, Mr. Bryan Foley, served as the Site Health and Safety (H&S) Officer. Mr. Foley insured that all VERSAR and subcontractor personnel were familiar with the approved site-specific Health and Safety Plan (HASP) (VERSAR, 2001) and conducted a site orientation for all personnel to familiarize them with site features and conditions, the scope of work, and site-specific hazards. Mr. Foley also conducted daily H&S meetings each morning prior to beginning work, and ensured all work was conducted in accordance with the HASP.

The onsite work was conducted using Level D personal protective equipment (hardhat, safety glasses, steel-toed work boots and work gloves). Tyvek coveralls and booties were worn when appropriate. Access to the excavation and material staging areas was restricted using temporary security fencing consisting of orange plastic roll fencing and/or barricades.

3.3 Soil Screening

Soil samples were initially collected within the proposed excavation areas from random points to check for the presence of volatile organic vapors using a Photo-Ionization Detector (PID). These samples were subjected to headspace analysis with the PID. Approximately 4 to 8 ounces of soil were placed in a sample jar and covered with plastic wrap and aluminum foil. The sample was then warmed using a vehicle heating vent for 10 to 15 minutes, allowing the volatile organic vapors to collect and equilibrate in the headspace above the soil. The aluminum/plastic cover was then punctured using the

wand of the PID and the highest vapor concentration for each sample was noted, if any. There were no exceedances of site background levels (3-4 ppm) within the soils. The area was considered clear of volatile organics and safe to begin the excavation activities.

3.4 Excavation and Remedial Activities

VERSAR and its subcontractor, MC Environmental Services (MCES), utilized a backhoe, excavator and front-end loader, to perform the excavation, stockpiling of soil, and off-site loading of contaminated soils.

Excavation activities began November 14, 2001, at the southeast end of the site removing the first one foot of soil from the impacted area. The excavation continued to the northeast end of the site, and then returned to the southeast corner of the embankment. The southeast corner was excavated to a depth of 2.0 feet in an area approximately 30 feet long by 20 feet wide as shown in **Figure 3**. Tarps and Visqueen were used to cover the soil stockpile(s) during non-operational hours and/or inclement weather conditions prior to load-out of the soil into dump trailers. A total of 340 tons was excavated, staged and transported off-site for disposal.

On November 20, 2001, a total of 29 confirmation samples and three associated QA/QC duplicates were taken from the bottom and sidewalls of the excavation **(Figure 4)** to confirm that the limits of the excavation did not exceed the NYSDEC TAGM 4046 (Appendix A, Table 4, Column 5) arsenic recommended cleanup objective (RCO) of 7.5 mg/kg. Each confirmatory sample was analyzed for arsenic according to USEPA Method 6061a. One (1) QA/QC duplicate sample was collected for each per ten (10) confirmation samples was collected. Versar used the sampling and QA/QC protocols and procedures outlined in USEPA SW 846. Confirmation sampling procedures, protocols and results are discussed in Section 4.0, Confirmation and Characterization Sampling.

Confirmation sampling indicated "hot spots" (exceedences) along the northwestern and southeastern sections of the excavation at five sample locations **(Figure 4)**. Exceedences ranged in concentration from 8.12 mg/kg to 26.5 mg/kg above the NYSDEC TAGM RCO. These findings indicated that additional excavation was required. The site was secured for the winter, and field activities were deferred until 2002.

On September 9, 2002, Versar resumed field activities. In accordance with the WP, the areas surrounding arsenic exceedence sample locations SARB-01, SARS-10, SARS-04, SARB-05 and SARS-11 **(Figure 5)** were excavated and re-sampled (Refer to Section 4.3 for additional details). A total of 72.5 tons of soil was excavated, staged and transported off-site for disposal. The re-sampled locations showed one arsenic NYSDEC TAGM exceedence area, Sample Location SARB-01, which required additional excavation.

On September 18, 2002, the area surrounding Sample Location SARB-01 was re-excavated and re-sampled. A total of 17.2 tons was excavated, staged and transported off-site for disposal. The re-sample showed no arsenic NYSDEC TAGM exceedence **(Figure 6).**

Following the submittal and approval of the re-sampling events Data Validation/Usability Report, VERSAR was permitted to grade and close the site. Final grading and demobilization from the site occurred on November 11, 2002. The cleanup of the staging area and decontamination pad also generated an additional 17.7 tons of residual arsenic-contaminated soil and material that required off-site disposal. Consequently, the amount of arsenic-contaminated soils sent for off-site disposal totaled 447 tons.

4.0 CONFIRMATION AND CHARACTERIZATION SAMPLING

This section describes sampling protocols, activity, and analytical results from the Old Small Arms Range, SS-033 remedial actions.

4.1 Data Quality Objectives

Confirmation samples were collected to support site closure recommendations, which required the preparation of a data validation usability report to support independent validation of the confirmation soil sampling results. The Data Validation Usability Reports for all confirmation sampling at the Old Small Arms Range are presented in **Appendix B**.

A waste characterization sample was analyzed for the parameters required by the potential waste disposal facilities. Waste characteristics are discussed in Section 5.0.

4.2 Sampling and Analysis

The sampling program was separated into two categories:

- Post-excavation or confirmation sampling
- Characterization sampling

Confirmation sampling was accompanied by a data validation/usability report. The samples collected were used to determine the extent of contamination and adequacy of contaminated soil removal at the anticipated limits of the excavation areas, while characterization sampling was used to characterize (for disposal) the potentially contaminated waste stockpiles generated from the remedial action. A data validation report was not required for the characterization samples.

All samples were analyzed for Total Arsenic and Percent Solids in accordance with EPA Methods SW846-6061(b). Arsenic concentrations were compared to NYSDEC TAGM 4046 (Appendix A, Tables 4, Column 4) Recommended Cleanup Objectives (RCOs) for soil to determine if clean conditions had been achieved and to determine offsite disposal requirements.

4.3 Excavation Confirmation Samples

Confirmation samples were collected from the limits of the excavation on November 20, 2001. Thirty-two (32) samples were collected and analyzed from the bottom and sidewalls of the excavation. Confirmation sampling locations are depicted in **Figure 4** and the analytical results are presented in **Table 1**. There were exceedences of the NYSDEC TAGM 4046 (Appendix A, Table 4, Column 5) arsenic cleanup level of 7.5 mg/kg in five samples: SARB-01, SARB-05, SARS-04, SARS-10 and SARS-11. A data validation/usability report for Kemron Project No.L0111367 and L0111369, dated December 4, 2001, was prepared and submitted for review and approval (**Appendix B**). In 2002, VERSAR subsequently removed additional soil from the impacted area around the locations of the aforementioned five samples, and the soil was re-sampled on

September 12, 2002. An additional 6 samples were collected and analyzed from the bottom and sidewalls of the excavation. Confirmation sampling locations are depicted in **Figure 5,** and the analytical results are presented in **Table 2**. Analytical results showed one arsenic exceedence of the NYSDEC TAGM 4046 (Sample Location SARB-01) and no exceedences in Sample Locations SARB-05, SARS-04, SARS-10 and SARS-11 for this re-sampling event. Consequently, Sample Location SARB-01 was re-excavated and re-sampled on September 23, 2002. The confirmation sampling location is depicted in **Figure 6,** and the analytical results are presented in **Table 2**. The analytical results show no arsenic exceedence; therefore, the area surrounding Sample Location SARB-01 was considered clean and "no further action" was necessary. A data validation/usability report for the two re-sampling events noted as Kemron Project Nos. L0209256, L0209402 and L0209417, dated November 7, 2002, was prepared and submitted for review and approval (**Appendix B**).

4.4 Waste Characterization Sample

Characterization sampling was performed collecting an insitu 5 point composite sample. The characterization sample was analyzed for total arsenic and a TCLP metal analysis (**Table 3**). The results classified the soil as non-hazardous, but in exceedence of the NYSDEC TAGM arsenic cleanup objective. Waste disposal analytical results are provided in **Appendix C**.

4.5 Sample Handling and Documentation

All samples were immediately placed into appropriate laboratory-supplied sample jars. Labels with all pertinent data were fixed to each sample jar for identification. Samples were then placed on ice in sample coolers to maintain a temperature of 4°C. All sample locations, dates, times, depths (if needed) and other observations were recorded in the logbook. Strict chain-of-custody (COC) procedures were followed to establish a complete sample custody record from the time of sample collection until laboratory receipt.

4.6 Data Validation

Data validation usability reports were produced for all confirmation samples (**Appendix B**). The results were reviewed and "qualified" if there were any concerns as shown in **Tables 1 and 2** and referenced in **Appendix B**. The qualifiers had no impact on data usability or the conclusions presented in this closure report.

5.0 WASTE CHARACTERIZATION AND DISPOSAL

5.1 Contaminated Soil

Based on the analytical results of the characterization sample, all soils were considered contaminated due to the exceedences of the NYSDEC TAGM arsenic cleanup criteria. The entire soil volume was disposed of offsite as a regulated waste material. The contaminated soil was loaded onto dump trailers via a front-end loader and transported to New England Waste Systems-Morrisonville, NY, a permitted solid waste landfill. A total of 447 tons of arsenic-contaminated soil were transported to the New England Waste Systems-Morrisonville, NY facility. The waste characterization sample analytical results are presented in **Appendix C**. Waste Profile and disposal weight tickets are provided in **Appendix D**.

5.2 Miscellaneous Materials

All miscellaneous waste materials associated with the staging area and decontamination pad were placed into the last dump trailer and sent to the New England Waste Systems-Morrisonville, NY facility.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A total of 447 tons of contaminated soils were removed and transported off-site to the New England Waste Systems-Morrisonville, NY facility. Confirmation sampling indicated that the remaining soils at SS-033 have arsenic concentrations below the NYSDEC TAGM 4046 RCOs; therefore, no further action is necessary at the Old Small Arms Range, SS-033 and the site can be considered "clean" closed.

7.0 REFERENCES

1. NYSDEC. 1994. *Determination of Soil Clean-up Objectives and Clean-up Levels*, Technical and Administrative Guidance Memorandum HWR-94-4046. Albany, NY: Division of Hazardous Waste Remediation[1].

2. URS Consultants, Inc. *March 2001. Site SS-033 Old Small Arms Range Record of Decision,* United States Department of the Air Force, Plattsburgh Air Force Base, Plattsburgh, New York, Buffalo, NY.

3. United States Air Force. (USAF), Air Force Center for Environmental Excellence (AFCEE), Environmental Restoration Division. May 30, 2001. Statement of Work. Remove and dispose Arsenic-contaminated soil at the Old Small Arms Range (Site SS-033) at Plattsburgh Air Force Base, New York. Project Numbers THWA2000-6001; Contract No. F41624-97-D-8011; Delivery Order: 0027.

4. United States Air Force. (USAF), Air Force Center for Environmental Excellence (AFCEE), Environmental Restoration Division. Quality Assurance Project Plan, Version 3.0, March 1998.

5. United States Environmental Protection Agency (USEPA). 1988, updated 2000. *Test Methods for Evaluating Hazardous Materials and Solid Waste*, SW 846, 3rd revision, Washington, D.C.

6 Versar, Inc., *Plattsburgh Air Force Base, Plattsburgh, NY, Work Plan, Old Small Arms Range (SS-033),* October 2001, Air Force Center for Environmental Excellence (AFCEE), Environmental Restoration Division, Brooks Air Force Base, Texas, Contract No. F41624-97-D-8011, Delivery Order No. 0027.

Note: [1] Division of Hazardous Waste Remediation has recently been re-named as the Division of Environmental Remediation.

Table 1
Soil Sample Analytical Results
Plattsburgh Air Force Base SS-033
Plattsburgh, NY (re-sampling events)

TABLE 2
SS-033 SOIL SAMPLE ANALYTICAL RESULTS (September 12 & 23, 2002)

ARSENIC CONFIRMATION BOTTOM SAMPLING RESULTS - (mg/kg)*

SAMPLE LOCATION (Sample No.) / ANALYTE	MDL (mg/kg)	Site Background or NYSDEC TAGM Soil Clean-up Objective (mg/kg)	SARB-01	re-sample SARB^{R1}-01-2	re-sample SARB^{R1}-01-2A sample duplicate	2nd re-sample SARB^{R2}-01-3	SARB-05	re-sample SARB^{R1}-05-2
			20 Nov-01	12 Sept-02	12 Sept-02	18-Sep-02	20 Nov-01	12 Sept-02
Arsenic, Total	0.35	7.5	**20.7**	20.1	**24.8**	0.897 F	**12.7**	1.08 F

ARSENIC CONFIRMATION SIDEWALL SAMPLING RESULTS - (mg/kg)*

SAMPLE LOCATION (Sample No.) / ANALYTE	MDL (mg/kg)	Site Background or NYSDEC TAGM Soil Clean-up Objective (mg/kg)	SARS-04	re-sample SARS^{R1}-04-2	SARS-10	re-sample SARS^{R1}-10-2	SARS-11	re-sample SARS^{R1}-11-2
			20 Nov-01	12 Sept-02	20 Nov-01	12 Sept-02	20 Nov-01	12 Sept-02
Arsenic, Total	0.35	7.5	**26.5**	1.76 F	**8.12**	1.32 F	**8.35**	0.899 F

MDL: Method Detection Level; RDL - Reportable Detection Limit.
F: - Result is below the RDL, but above the MDL; Result is qualitatively acceptable but quantitatively unreliable due to uncertainty in precision near the limit of detection.
* Refer to Figures 1 and 2, Sample Location Map of Old Small Arms Range (SS-033) for specific "re-sampling" locations of soil sample arsenic concentrations.
Shaded block and bold font identifies sample and associated arsenic concentration that exceeds the NYSDEC TAGM cleanup objective, Appendix A, Table 4, Column 5.

R1 = 1st re-sample following removal of arsenic contaminated soil.

R2 = 2nd re-sample following removal of arsenic contaminated soil.

Table 2
Soil Sample Analytical Results
Plattsburgh Air Force Base SS-033
Plattsburgh, NY

TABLE 1
SS-033 SOIL SAMPLE ANALTYICAL RESULTS (NOVEMBER 20, 2001)

ARSENIC CONFIRMATION BOTTOM SAMPLING RESULTS - (mg/kg)*

SAMPLE LOCATION (Sample No.) / ANALYTE	MDL (mg/kg)	Site Background or NYSDEC TAGM Soil Clean-up Objective (mg/kg)	SARB-01	SARB-02	SARB-03	SARB-04	SARB-05	SARB-06	SARB-07	SARB-08	SARB-09	SARB-10	SARB-11	SARB-12	SARB-12DUPE sample duplicate	SARB-13	SARB-14	SARB-15
Arsenic, Total	0.35	7.5	20.7	6.39	1.49	1.15	12.7	1.69	1.99	1.94	2.83	1.39	2.32	2.04	1.71	1.49	1.25	1.73

ARSENIC CONFIRMATION SIDEWALL SAMPLING RESULTS - (mg/kg)*

SAMPLE LOCATION (Sample No.) / ANALYTE	MDL (mg/kg)	Site Background or NYSDEC TAGM Soil Clean-up Objective (mg/kg)	SARS-01	SARS-02	SARS-02DUPE sample duplicate	SARS-03	SARS-04	SARS-05	SARS-05DUPE sample duplicate	SARS-06	SARS-07	SARS-08	SARS-09	SARS-10	SARS-11	SARS-12	SARS-13	SARS-14
Arsenic, Total	0.35	7.5	1.85	5.04	6.11	6.14	26.5	6.37 J	1.76 J	6.94	2.00	3.58	4.21	8.12	8.35	1.94	0.846 F	1.77

MDL: Method Detection Level; RDL - Reportable Detection Limit.
F: - Result is below the RDL, but above the MDL; Result is qualitatively acceptable but quantitatively unreliable due to uncertainty in precision near the limit of detection.
J – Results are estimated and the data valid for limited purposes. The results are qualitivelyacceptable, but quantitatively unreliable.
* Refer to Figure 1, Sample Location Map of Old Small Arms Range (SS-033) for specific location of soil sample arsenic concentrations.
Shaded block and bold font identifies sample and associated arsenic concentration that exceeds the NYSDEC TAGM cleanup objective, Appendix A, Table 4, Column 5.

R = RESAMPLE

Table 3
Waste Characterization Summary
Plattsburgh Air Force Base SS-033
Plattsburgh, NY

Sample Number	Sample Location	Date Sampled	Date Analyzed	Matrix	Analysis	Analytical Method
L0110388-01	SAR-01	10/17/01	10/22/01	Soil	Silver,TCLP	6010(b)\3015
		10/17/01	10/22/01	Soil	Arsenic, TCLP	6010(b)\3015
		10/17/01	10/22/01	Soil	Barium, TCLP	6010(b)\3015
		10/17/01	10/22/01	Soil	Cadmium, TCLP	6010(b)\3015
		10/17/01	10/22/01	Soil	Chromium, TCLP	6010(b)\3015
		10/17/01	10/23/01	Soil	Mercury, TCLP	7470(a)/Method
		10/17/01	10/22/01	Soil	Lead, TCLP	6010(b)\3015
		10/17/01	10/22/01	Soil	Selenium, TCLP	6010(b)\3015

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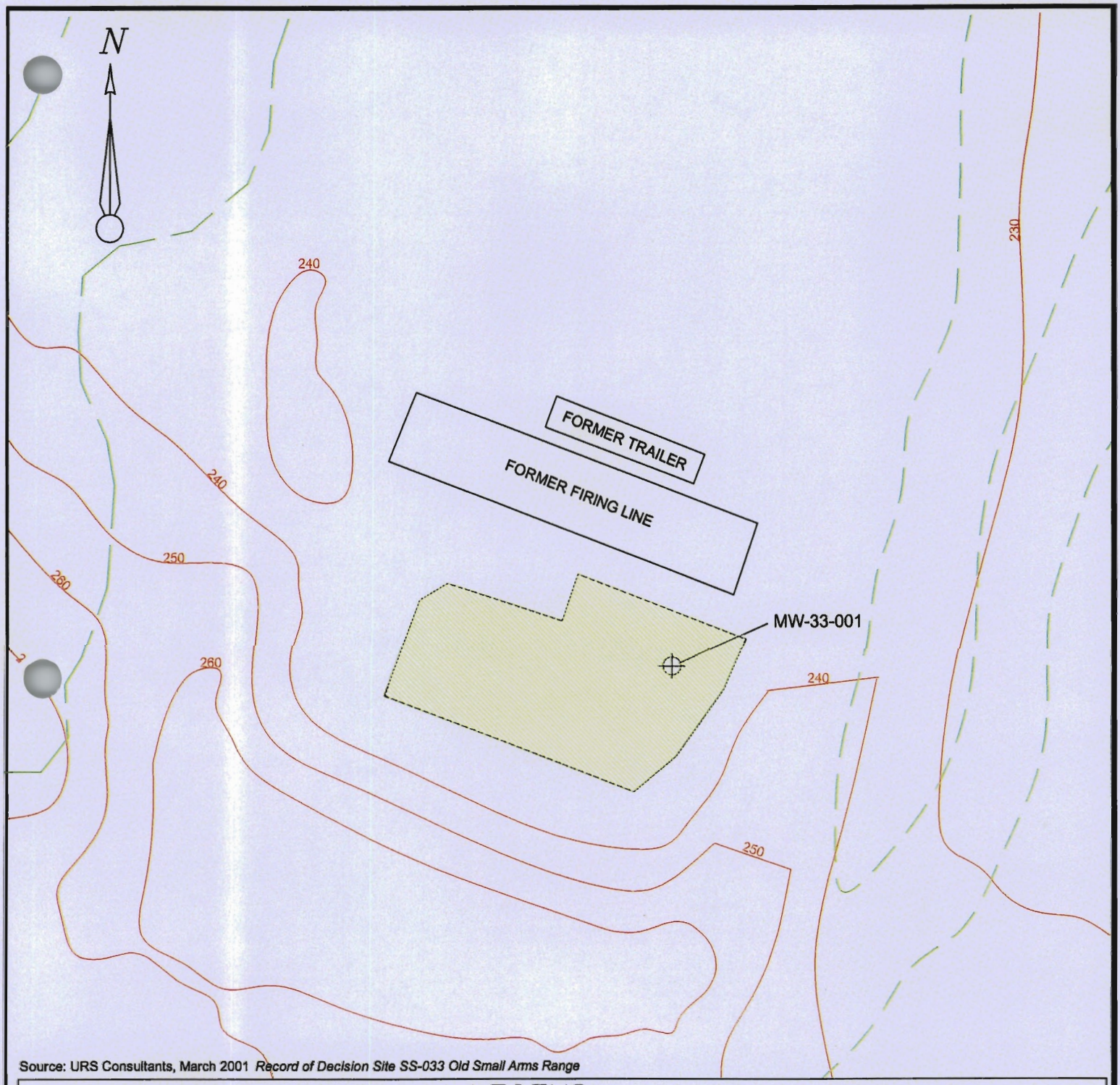
FIGURE 1. SITE LOCATION MAP
PLATTSBURGH AIR FORCE BASE
PLATTSBURGH, NY



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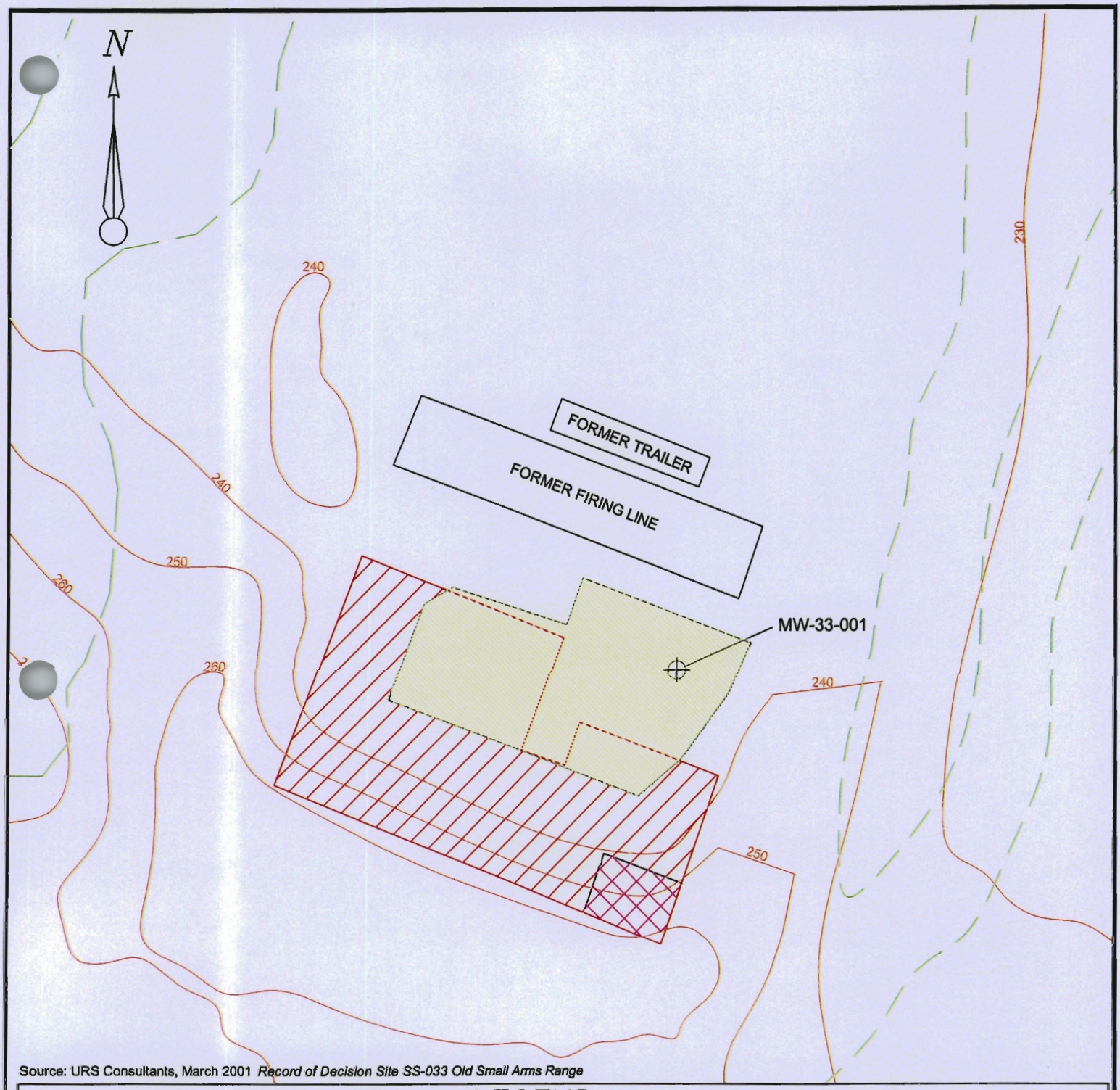
2558 PEARL BUCK ROAD, SUITE 1
BRISTOL, PA 19007

SS-033 Previous Investigation Map
Former OHM Excavation Area

FIGURE 2
Plattsburgh Air Force Base



Source: URS Consultants, March 2001 *Record of Decision Site SS-033 Old Small Arms Range*

LEGEND

- Monitoring Well
- Extent of Arsenic Contaminated Soil Identified in 1994 Draft SI
- Tree Line
- 230 Ground Surface Contour (ft amsl) Contour Interval = 10 feet
- Proposed Excavation Depth 0-1 ft.
- Proposed Excavation Depth 0-2 ft.
- Excavated by OHM 1997

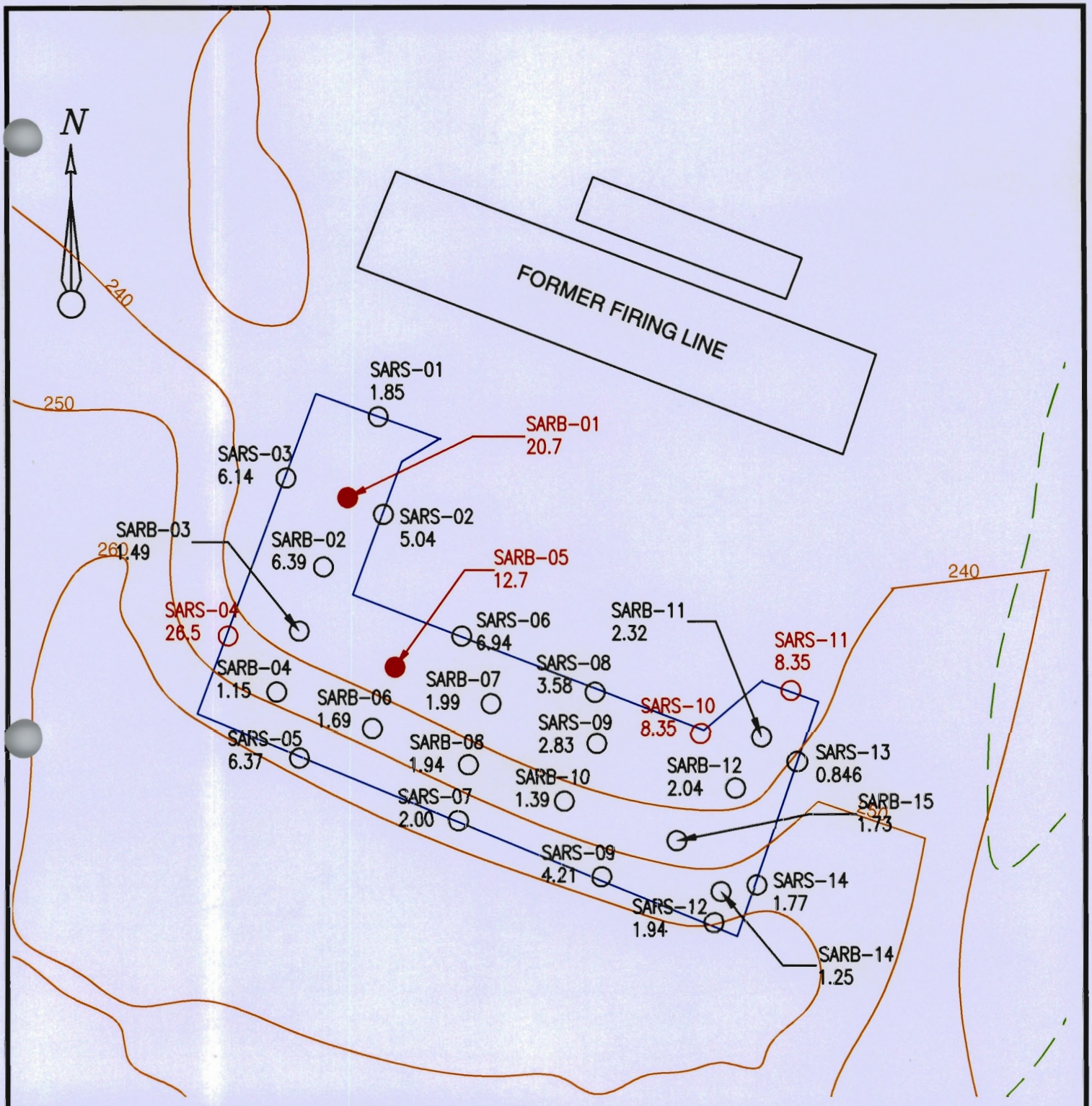
50 25 0 50

SCALE IN FEET

Versar INC.
2558 PEARL BUCK ROAD, SUITE 1
BRISTOL, PA 19007
(215) 788-7844

(SS-033)
Excavation Plan

FIGURE 3
Plattsburgh Air Force Base
Plattsburgh, NY



Source: URS Consultants, March 2001 *Record of Decision Site SS-033 Old Small Arms Range*

LEGEND

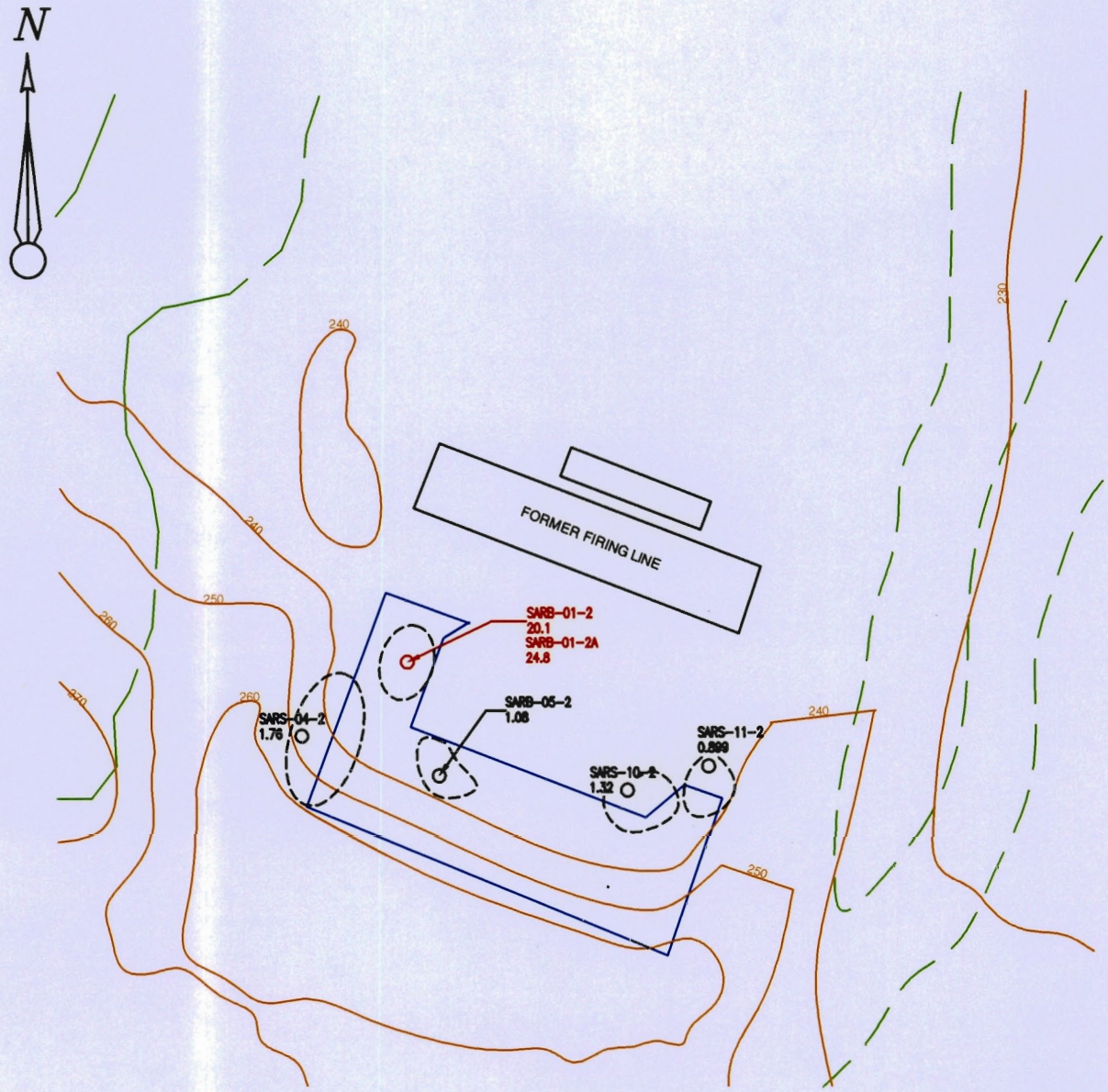
- Bottom Samples
- Bottom Samples exceeding clean-up critera.
- Sidewall Samples
- Sidewall Samples exceeding cean-up criteria.
- Tree Line
- 230 Ground Surface Contour (ft amsl) Contour Interval = 10 feet
- Excavation Limits

Versar INC.
2558 PEARL BUCK ROAD, SUITE 1
BRISTOL, PA 19007
(215) 788-7844

(SS-033) Soil Sample Locations
And Analytical Results Map
(November 20, 2001)

FIGURE 4

Plattsburgh Air Force Base
Plattsburgh, NY



Source: URS Consultants, March 2001 *Record of Decision Site SS-033 Old Small Arms Range*

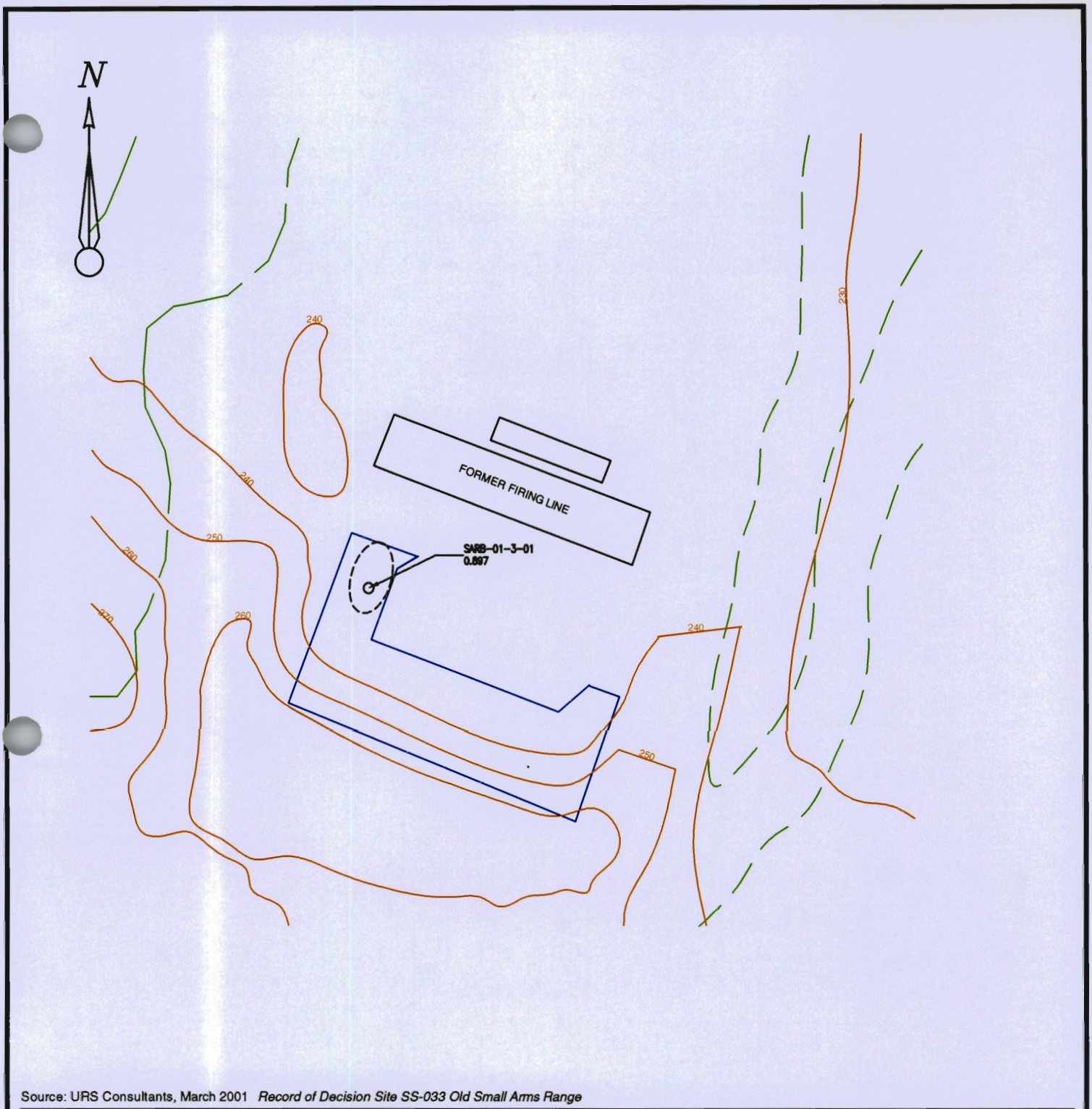
LEGEND

- 230 Ground Surface Contour (ft amsl) Contour Interval = 10 feet
- Soil Sample Results for Arsenic
- Soil Sample with concentrations exceeding TAGM Cleanup Criteria for Arsenic (7.5 mg/kg)
- Tree Line
- Excavation Limits (20 Nov 01)
- 2nd Excavation (12 Sept 02)

Versar INC.
2558 PEARL BUCK ROAD, SUITE 1
BRISTOL, PA 19007
(215) 788-7844

(SS-033) Soil Re-Sample Locations
And Analytical Results Map
(September 12, 2002)

FIGURE 5
Plattsburgh Air Force Base
Plattsburgh, NY



Source: URS Consultants, March 2001 *Record of Decision Site SS-033 Old Small Arms Range*

LEGEND

- 230 — Ground Surface Contour (ft amsl) Contour Interval = 10 feet
- Excavation Limits (20 Nov 01)
- 3rd Excavation (18 Sept 02)
- Soil Sample Results for Arsenic
- Tree Line

Versar INC.
2558 PEARL BUCK ROAD, SUITE 1
BRISTOL, PA 19007
(215) 788-7844

(SS-033) Soil Re-Sample Location
And Analytical Results Map
(September 23, 2002)

FIGURE 6
Plattsburgh Air Force Base
Plattsburgh, NY

APPENDIX A

PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

1. Mobilization activity

2. Removed material staging area.

3. Initial excavation activity.

4. Site after completion of initial excavation.

5. Site during removal of material from initial excavation.

6. Site during second excavation activities.

7. Removal of material from the second and third excavation activities.

8. Removal of material from the second and third excavation activities.

9. Site after second and third excavation activities

10. Site after grading and restoration.

APPENDIX B

DATA VALIDATION USABILITY REPORTS

Versar INC. *Revised 1/29/02*

MEMORANDUM

TO: Rich Habrukowich, Versar, Bristol, PA

FROM: Donna Oswald, Versar, Lombard, IL

DATE: December 4, 2001

RE: **Data Validation/Usability Report for Plattsburg AFB**
Old Small Arms Range, Confirmation Soil Samples
Kemron Project No. L0111367, L0111369

1.0 INTRODUCTION

On November 20, 2001 32 sidewall and bottom confirmation soil samples including three duplicate samples, were collected at Plattsburgh AFB Old Small Arms Range, Site SS-033 (sidewall: SARS and bottom: SARB) and sent to Kemron Environmental Services (Kemron), located in Marietta, Ohio, for analysis. Samples were analyzed for total arsenic by EPA SW846 Method 6010B. The samples were reported in Kemron Project Numbers L0111367 and L0111369 Analyses were preformed in accordance with the Air Force Center for Environmental Excellence (AFCEE) Quality Assurance Project Plan (QAPP) Version 3.0 (March 1998). The analytical results are presented in Table 1.

The data were qualified in accordance with the validation protocols in the AFCEE QAPP, Version 3.0 (March 1998) and the laboratory specific control limits supplied by Kemron. The laboratory performed the initial review of the data package, and qualified the data in accordance with their internal QC requirements. Final qualification of the data was made by the Versar project chemist based on the results of Versar's data validation. The following items were reviewed during the data validation process: chain of custody, sample condition upon receipt, extraction/analysis holding times, method detection/reporting limits, laboratory control sample (LCS) recoveries, initial and continuing calibrations, second source calibration verification standards, laboratory method matrix spike/ matrix spike duplicate (MS/MSD) analysis results, field duplicate precision, field QC blank contamination and report completeness.

The hierarchy of AFCEE qualifiers from most to least severe are as follows; "R" (rejected), "M" (matrix effect present), "F" (results above method detection limit, but below reporting limit), "J" (estimated value), "B" (blank contamination) and "U" (not detected).

The samples were received by Kemron intact and under proper chain-of-custody. The temperature of the sample cooler upon receipt at the laboratory was 1°C. This was outside the normal recommended range of 4 ± 2°C but should not impact the sample results. Laboratory sample receipt records indicate that the sample cooler contained ice upon receipt and that the samples were not frozen. The chain-of-custody forms are included as an attachment.

2.0 VALIDATION

All calibration requirements as summarized in Attachment A were met for all samples. All other QC criteria were met. Samples SARS-01 and SARB-01 were used as the MS/MSD for samples analyzed for Arsenic by method 6010B. All criteria were met.

In several samples, Arsenic was detected below the RL but above the MDL. These are considered trace levels and were qualified "F" in accordance with the QAPP. These results are considered to be qualitatively acceptable but quantitatively suspect due to poor analytical precision near the limit of detection.

Samples SARB-12 and SARB-12DUP, SARS-02 and SARS-02DUP, and SARS-05 and SARS-05DUP were field duplicate pairs for this SDG for Arsenic. No criteria for the evaluation of field duplicate results are provided in the QAPP, therefore guidance provided for review of laboratory duplicates in the USEPA CLP National Functional Guidelines for Inorganic Data Review (EPA-540/R-94-013) was used. For metals, the laboratory analyzes a duplicate sample, however both aliquots are taken from the same sample jar after homogenization in the laboratory. True field duplicates would be collected from the same area, but not necessarily be homogenized prior to submission to the laboratory. Matrix spike/matrix spike duplicate relative percent difference (RPD) criteria were used to evaluate results greater than 5 times the reporting limit (RL). Matrix spike RPD criteria serve as a lower estimate of field precision as they do not include variability introduced by field sample collection activities. Results less than 5 times the RL were evaluated against criteria of $\pm$ 2 times the RL. Field precision criteria were met for arsenic in two of the three field duplicate pairs. The sample collected from SARS-05 showed evidence of sample matrix non-homogeneity during the analysis as indicated by the disparate results (6.37 and 1.76 mg/kg) from the analysis of the sample and it's field duplicate. Associated results have been flagged "J" for use as estimates.

3.0 COMPLETENESS

The AFCEE QAPP goal for completeness is 90% for soil matrixes. Percent completeness is defined as the number of valid results divided by the total number of individual target compound results. Valid results are those that have not been rejected (qualified "R"). The percent completeness was 100% for this event. The completeness goal of 90% was met for soil samples.

ATTACHMENTS

Attachment A

Initial Calibration quality control requirements for reportable analytes

QC requirement	multi-point calibration	Multi-point %RSD or r^2 OK	Low standard < PQL	Second Source Standard (SSC)	SSC %D OK
Analytical Method					
6010B	x	X	x	x	x

Continuing Calibration quality control requirements for reportable analytes

QC requirement	Continuing Calibration Verification Standard (CCV)	CCV %D OK
Analytical Method		
6010B	x	x

TABLES

Table 1
Summary of Arsenic Results
Bottom Confirmation Samples

Sample ID	TAGMS	PQL	MDL	SARB-01		SARB-02		SARB-03		SARB-04		SARB-05	
Sampling Date				11/19/01		11/19/01		11/19/01		11/19/01		11/19/01	
Analysis Date				11/27/01		11/27/01		11/27/01		11/27/01		11/27/01	
				Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	**20.7**		6.39		1.49		1.15		**12.7**	
Percent Solids (%)		1	1	90		91		93		95		90	

Sample ID	TAGMS	PQL	MDL	SARB-06		SARB-07		SARB-08		SARB-09		SARB-10	
Sampling Date				11/19/01		11/19/01		11/19/01		11/19/01		11/19/01	
Analysis Date				11/27/01		11/27/01		11/27/01		11/27/01		11/27/01	
				Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	1.69		1.99		1.94		2.83		1.39	
Percent Solids (%)		1	1	96		97		96		96		96	

Sample ID	TAGMS	PQL	MDL	SARB-11		SARB-12		SARB-12DUPE		SARB-13		SARB-14	
Sampling Date				11/19/01		11/19/01		11/19/01		11/19/01		11/19/01	
Analysis Date				11/27/01		11/27/01		11/27/01		11/27/01		11/27/01	
				Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	2.32		2.04		1.71		1.49		1.25	
Percent Solids (%)		1	1	95		95		95		96		98	

Sample ID	TAGMS	PQL	MDL	SARB-15	
Sampling Date				11/19/01	
Analysis Date				11/27/01	
				Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	1.73	
Percent Solids (%)		1	1	95	

FOOTNOTES:
All results reported on a dry weight basis.
Results above the TAGMS level are bolded.
RDL - Reportable Detection Limit
MDL - Method Detection Limit

Table 1

Summary of Arsenic Results
Sidewall Confirmation Samples

Sample ID	TAGMS	PQL	MDL	SARS-01		SARS-02		SARS-02DUPE		SARS-03		SARS-04	
Sampling Date				11/19/01		11/19/01		11/19/01		11/19/01		11/19/01	
Analysis Date				11/20/01		11/20/01		11/20/01		11/20/01		11/20/01	
				Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	1.85		5.04		6.11		6.14		**26.5**	
Percent Solids (%)		1	1	96		95		95		94		88	

Sample ID	TAGMS	PQL	MDL	SARS-05		SARS-05DUPE		SARS-06		SARS-07		SARS-08	
Sampling Date				11/19/01		11/19/01		11/19/01		11/19/01		11/19/01	
Analysis Date				11/20/01		11/20/01		11/20/01		11/20/01		11/20/01	
				Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	6.37	J	1.76	J	6.94		2		3.58	
Percent Solids (%)		1	1	93		96		91		93		94	

Sample ID	TAGMS	PQL	MDL	SARS-09		SARS-10		SARS-11		SARS-12		SARS-13	
Sampling Date				11/19/01		11/19/01		11/19/01		11/19/01		11/19/01	
Analysis Date				11/20/01		11/20/01		11/20/01		11/20/01		11/20/01	
				Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	4.21		**8.12**		**8.35**		1.94		0.846	F
Percent Solids (%)		1	1	95		93		93		96		99	

Sample ID	TAGMS	PQL	MDL	SARS-14	
Sampling Date				11/19/01	
Analysis Date				11/20/01	
				Result	Flag
Arsenic (mg/kg)	7.5	1	0.35	1.77	
Percent Solids (%)		1	1	97	

FOOTNOTES:
All results reported on a dry weight basis.
Results above the TAGMS level are bolded.
RDL - Reportable Detection Limit
MDL - Method Detection Limit
F - Result is below the RDL but above the MDL: Result is qualitatively acceptable but quantitatively unreliable due to uncertainity in precision near the limit of detection.

J- Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable but quantitatively unreliable.

CASE NARRATIVE

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0111367

CHAIN OF CUSTODY:

The chain of custody number was 104816.

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperature was 1° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Jay M Thomas DATE: 11-27-01

REPORT NARRATIVE
METALS

KEMRON Login No: L0111367

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ALT REVIEWED: Maren Beery DATE: 11/28/01

Rev. 6/00

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0111369

CHAIN OF CUSTODY:

The chain of custody number was 104815.

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperature was 1° C.

SAMPLE MANAGEMENT:

All samples received were intact. There were several time discrepancies between the chain of custody and the sample bottles. Kemron used the times from the chain of custody.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: M Twomey DATE: 11-27-01

REPORT NARRATIVE
METALS

KEMRON Login No: L0111369

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met
Duplicate: WG108875 - Sample nonhomogeneity was apparent in analysis of duplicate samples L0111369-06 and L0111369-07.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ALT

REVIEWED: Maren Beery DATE: 11/28/01

Rev. 6/00

CHAIN OF CUSTODIES

COC No. B 004816

L01-11-36

109 Starlite Park
Marietta, OH 45750

KEMRON ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: VERSAR. INC
Project Contact: RICH HABRUKOWICH
Contact Phone #: 215 356 3506
Turn Around Requirements: 48 h
Location: PLATTSBURGH, NY
Project #: 104500 45 27.141
Project Name: Small Arms Range
Sampler (print): BRYAN FOLEY
Signature: [signature]

Program: ☐ NPDES ☒ AFCEE ☐ RCRA ☐ USACE ☐ Other

Mail Report To: VERSAR INC
2558 PEARL BUCK RD
STE. 1
BRISTOL, PA. 19007

ERPIMS REQUIRED FIELDS — LOT CONTROL NUMBERS: ABLOT | EBLOT | SBLOT

Sample I.D. No	Date	Time	Comp*	Grab	NUMBER of CONTAINERS	PCT-S-STAT, AS (ARSENIC)	Comments
SARB-01	11/19/01	09:20		X	1	X	
SARB-02		09:25					
SARB-03		09:30					
SARB-04		09:35					
SARB-05		09:40					
SARB-06		09:45					
SARB-07		09:50					
SARB-08		09:55					
SARB-09		10:00					
SARB-10		10:05					
SARB-11		10:10					
SARB-12		10:15					
SARB-12 DUPE		10:15					
SARB-13		10:20					
SARB-14		10:25					
SARB-15		10:30					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	11/19/01	1400					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Cooler Temp in °C	Remarks
			[signature]	11/20/01	1003	/	Ck Sealed Stuntact [illegible]

* Homogenize all composite samples prior to analysis

Page ____ of ____

TE[illegible]ERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Versar, Inc. Division 35
1900 Frost Road
Suite 110
Bristol, PA 19007
Attention: Rich Habrukowich

PO Number:
Account Number: VERSAR-PA-318

Login #: L0111367
Report Date: 11/29/01
Work ID: SMALL ARMS RANGE
Date Received: 11/20/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0111367-01	SARB-01	L0111367-02	SARB-02
L0111367-03	SARB-03	L0111367-04	SARB-04
L0111367-05	SARB-05	L0111367-06	SARB-06
L0111367-07	SARB-07	L0111367-08	SARB-08
L0111367-09	SARB-09	L0111367-10	SARB-10
L0111367-11	SARB-11	L0111367-12	SARB-12
L0111367-13	SARB-12DUPE	L0111367-14	SARB-13
L0111367-15	SARB-14	L0111367-16	SARB-15

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON ENVIRONMENTAL SERVICES

COC No. B 104815

109 Starlite Park
Marietta, OH 45750

KEMRON ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

L01-11-369

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: VERSAR INC.

Project Contact: RICH HABRUKOWICH | Contact Phone #: 215 356 3506

Turn Around Requirements: 48 hr | Location: PLATTSBURGH, NY. AFB

Project #: 10HS00 4527.141 | Project Name: Small Arms Range

Sampler (print): BRYAN FOLEY | Signature: [signature]

Program: ☐ NPDES ☑ AFCEE ☐ RCRA ☐ USACE ☐ Other

Mail Report To: VERSAR INC
2558 PEARL BUCK RD
STE. 1
BRISTOL, PA 19007

ERPIMS REQUIRED FIELDS

Sample I.D. No	Date	Time	Comp*	Grab	Number of Containers	PCT-5-STAT AS (ARSENIC)	Comments
SARS-01	11/19/01	08:00		X	1	X	
SARS-02		08:05					
SARS-02-Dup		08:05					
SARS-03		08:10					
SARS-04		08:15					
SARS-05		08:20					
SARS-05-Dup		08:20					
SARS-06		08:25					
SARS-07		08:30					
SARS-08		08:35					
SARS-09		08:40					
SARS-10		08:45					
SARS-11		08:50					
SARS-12		08:55					
SARS-13		09:00					
SARS-14		09:05					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	11/19/01	14:00					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Cooler Temp in °C	Remarks:
			Brenda Gregory	11/20/01	1003	1	CC sealed / sp contact / bg

* Homogenize all composite samples prior to analysis

TEST CERTIFICATE

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Versar, Inc. Division 35
1900 Frost Road
Suite 110
Bristol, PA 19007
Attention: Rich Habrukowich

Login #: L0111369
Report Date: 11/29/01
Work ID: SMALL ARMS RANGE
Date Received: 11/20/01

PO Number:
Account Number: VERSAR-PA-318

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0111369-01	SARS-01	L0111369-02	SARS-02
L0111369-03	SARS-02DUPE	L0111369-04	SARS-03
L0111369-05	SARS-04	L0111369-06	SARS-05
L0111369-07	SARS-05DUPE	L0111369-08	SARS-06
L0111369-09	SARS-07	L0111369-10	SARS-08
L0111369-11	SARS-09	L0111369-12	SARS-10
L0111369-13	SARS-11	L0111369-14	SARS-12
L0111369-15	SARS-13	L0111369-16	SARS-14

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

David L Bumgarner

Certified By
David L. Bumgarner

KEMRON ENVIRONMENTAL SERVICES

CRF #3 L01-11-561 / L01-11-5[illegible]

KEMRON Environmental Services **SAMPLES RECEIPT FORM** Marietta Laboratory

CLIENT: Ver-PA BRC LMT Other _____	DATE: 11/20/01	SHIPPED BY: (•) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL748	COOLER ID:	COOLER ID:
INDEX #: 82 16876 57129	INDEX #:	INDEX #:
SEALED (•) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (•) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : °C (C) (D) /	TEMP : °C (C) (D)	TEMP : °C (C) (D)
TEMP IN RANGE (4°C ± 2°) (•) YES (•) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (•) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (•) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (•) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (•) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO
SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER ( ) SOIL (•) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (•) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO
(•) LEGIBLE (•) YES ( ) NO	LEGIBLE ( ) YES ( ) NO	LEGIBLE ( ) YES ( ) NO
9/c 104815 MATCH COC (•) YES (•) NO	MATCH COC ( ) YES ( ) NO	MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
SAMPLES FROZEN? ( ) YES (•) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

CRF#4

Sample Receipt Form #2

Client: Ver-PA Project: _____

Date Received: 11/20/01

_____Cooler temperature > than 6 degrees Celcius

Reason _____

_____Samples received not on chain of custody

_____

_____

_____Samples on chain of custody not received

_____

c/c 10:48:15. 1st time is per c/c ; 2nd time is bottle

✓ _____Information on sample containers different from chain of custody

C/C SARS-02 DUPE @ 805 ~ bottle 810 ; 03 @ 810 ~ 815 ; 04 @ 815 ~ 820
05 @ 820 ~ 825 ; 05 DUPE @ 820 ~ 830 ; 06 @ 825 ~ 835
07 @ 830 ~ 840 ; 08 @ 835 ~ 845 ; 09 @ 840 ~ 850 ; 10 @ 845 ~ 85
11 @ 850 ~ 900 ; 12 @ 855 ~ 905 ; 13 @ 900 ~ 910 ; 14 @ 905 ~ 915

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____

_____

_____pH out (List sample ID & which container)

_____

_____

_____Insufficient sample volume

_____

_____Air bubbles present in Voa vials (List sample ID)

_____

_____Hold time expired (List sample ID)

_____

_____

TSR:

Was client notified regarding information: YES NO

Name of person contacted: _____ Company: _____

TSR: _____ Date: _____

Attach: Phone Logs, e-mails, faxes, etc.

VARIANCES

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
ENVIRONMENTAL RESTORATION SERVICES
BROOKS AFB, TX 78235

29 Nov 00

MEMORANDUM FOR HQ AFCEE/ERB
ATTENTION: Roy Willis/RTC/Plattsburg AFB

FROM: Burt Harrison
Environmental Chemistry Consultant
AFCEE/ERC
3207 North Road
Brooks AFB, Tx 78235

SUBJECT: Environmental Chemistry Review of the Kemron Laboratory QAPP Variances Prepared by Versar for the Plattsburg AFB Project.

References: (a) Handbook for the Installation Restoration Program (IRP) - Remedial Investigation/Feasability Studies (RI/FS), AFCEE, Sept. 1993. (b) U.S. EPA Test Methods for Evaluating Solid Wastes (SW 846), third edition, July 1992. (c) HQ AFCEE Quality Assurance Project Plan, March 1998.

A review of the Quality Assurance Project Plan variances for the Plattsburg AFB, NY project prepared by Versar are acceptable with the following exceptions. Recommend sample results be reported on a dry weight basis except for SW5035 samples where it is not possible. Concur with all Reporting Limit variances if approved by the New York State RPM and the USEPA RPM. Do not concur with calibration variances. Do not concur with recovery limits lower than 20% for any analyte for any analytical procedure. Concur with the MDL variance request after a survey of a number of AFCEE laboratories concerning this MDL issue requirement.

If you have any questions regarding this review or these comments, please contact me at (210) 536-5226.

Burt Harrison
Environmental Chemistry Consultant
Consultant Operations Division
AFCEE/ERC

KEMRON Environmental Services, Inc.
Variance Request AFCEE QAPP Version 3.0, March 1998
Versar – Plattsburgh, NY
Revised 11/20/00

QAPP Section 4.3.1: MDL Spike Levels

AFCEE REQUIREMENT:

Item (6) of Section 4.3.1 states "If the spike level in step 2 is more than five times the calculated MDL, repeat the process using a smaller spiking level."

VARIANCE REQUEST:

The laboratory requests a variance to change "five times" to read "ten times".

JUSTIFICATION:

The analytes that fail the "five times" criteria are on those instruments or methods that are very precise and have low relative standard deviations. Any procedure with a relative standard deviation less than 6.67% (at the spiked level) will produce MDLs that do not meet the "fives times" criteria. Furthermore, this process tends to underestimate the MDL, so repeating the process at a lower spiking level may not produce meaningful data, particularly, if the spike level is below the quantitation limit (lowest calibration standard).

If so desired, the MDLs for those few analytes that fail the "five times" criteria MDL could be assigned a value equal to one-tenth the spike level, or one-half the project required RL, whichever is higher. This will assure that all project DQOs related to the MDLs and RLs will be met.

KEMRON meets the EPA criteria that the spike concentration should not exceed ten times the estimated MDL and AFCEE has accepted this interpretation on previous projects.

QAPP Section 8.2 – Wet Weight vs. Dry Weight

AFCEE REQUIREMENT:

Section 8.2 of the AFCEE QAPP V3.0 requires that "A wet weight aliquot of sample equivalent to the method specified dry weight aliquot of sample shall be taken for analysis."

KEMRON VARIANCE REQUEST:

The laboratory requests a variance to allow the method prescribed sample weights to be determined on the "as-received" basis, as specified in SW846.

JUSTIFICATION:

1) Increasing the amount of wet weight changes the sample/solvent ratios, which may significantly reduce the recovery of analytes from the matrix, resulting in poor surrogate recovery and more R flagged data. Altering the sample/solvent reagent ratios is a direct violation of the SW-846 methods.2) Organic extraction methods such as 3540, 3545 and 3550 have a limit on the quantity of sample they can effectively process. 3) The QAPP procedure cannot be applied to samples collected by method 5035 for volatile organic analysis.

QAPP Section 7.19.1 SW8260 Reporting Limits

KEMRON VARIANCE REQUEST:

Reporting limit (RL) variances for the following analytes:

Analyte	AFCEE RL (ug/L)	Proposed RL (ug/L)
1,1,2,2 Tetrachloroethane	0.4	0.8
1,1-Dichloroethane	0.4	0.5
1,2,3-Trichlorobenzene	0.3	1
1,2,4-Trichlorobenzene	0.4	2
1,2-Dichlorobenzene	0.3	1
1,2-Dichloropropane	0.4	0.5
1,3-Dichloropropane	0.4	0.5
1-Chlorohexane	0.5	1
1,4-Dichlorobenzene	0.3	1

2-Chlorotoluene	0.4	1
Benzene	0.4	0.5
Bromobenzene	0.3	1
Bromochloromethane	0.4	0.5
Bromodichloromethane	0.8	1
Chlorobenzene	0.4	0.5
Chloroform	0.3	0.5
Ethylbenzene	0.6	1
Methylene Chloride	0.3	2
n-propylbenzene	0.4	1
Naphthalene	0.4	1
Styrene	0.4	1
Trichlorofluoromethane	0.8	1
Dibromochloromethane	0.5	0.6
1,2-Dichloroethane	0.6	0.7
m,p-Xylene		1

JUSTIFICATION:

The laboratory low calibration standard is not at the AFCEE RL. The proposed RL will meet the project requirements.

AFCEE REQUIREMENT:

Table 7.2.9-1 lists m-Xylene and p-Xylene as separate analytes.

KEMRON VARIANCE REQUEST:

KEMRON requests a variance to report m-Xylene and p-Xylene as one analyte, since the compounds co-elute.

QAPP Section 7.2.9 SW5035 Preservation

VARIANCE REQUEST:

KEMRON requests that method 5035 soil preservation be limited to freezing and that the holding time be accepted as 14 days.

JUSTIFICATION:

This variance is needed to prevent the degradation of performance of several (8260) target analytes and the failure of these analytes to meet the QAPP 3.0 quality control requirements for the second source verification and continuing calibration verification (CCV). The analytes most affected by affected by the sodium bisulfate are clorodifluoromethane, chloromethane, vinyl chloride, bromomethane, chloroethane, and trichlorofluromethane. These compounds have a high probability of failing ICV/CCV criteria, resulting in R flags on all samples. Using the freezing option will eliminate these problems. The freezing option and 14-day hold time is being accepted by some states and selected US-EPA regions.

QAPP Section 7.2.9 SW5035 Preservation

VARIANCE REQUEST:

KEMRON requests a variance to change the second source initial calibration verification (ICV) and continuing calibration verification (CCV) criteria from +/- 25 % to +/- 40% for clorodifluoromethane, chloromethane, vinyl chloride, bromomethane, chloroethane, and trichlorofluromethane.

JUSTIFICATION:

These compounds are very prone to ICV/CCV failure when sodium bisulfate is used as a preservative. Without the variance these compounds will probably have to be R-flagged.

QAPP Section 7.2.10 SW8270 Surrogate Control Limit

AFCEE REQUIREMENT:

Table 7.2.10-2 lists the acceptance limit for phenol-D5 as 25-125 % recovery in water.

KEMRON VARIANCE REQUEST:

KEMRON requests a variance to use 10 – 125 % recovery as the acceptance limit in water

JUSTIFICATION:

Phenol recovery above 10% is not achievable routinely due to poor extraction efficiency. Industry-wide statistics do not support the 25 – 125 % recovery limit.

QAPP Section 7.2.10 SW8270 LCS Control Limits

AFCEE REQUIREMENT: see table below

VARIANCE REQUEST:

LCS Control Limit variances for 8270 compounds in water:

Compound	AFCEE LCS LIMITS	PROPOSED LCS LIMITS
Phenol	25-125	20-125
2-Chloronaphthalene	60-125	49-120
Hexachlorocyclopentadiene	Delete as a target analyte	
Benzoic Acid	25-162	20-125
3,3'-Dichlorobenzidine	29-175	20-125
Phenol-d5 (surrogate)	25-125	20-125

JUSTIFICATION:

These compounds are industry-wide poor performers and consistently give recoveries below the AFCEE lower control limits. Hexachlorocyclopentadiene has been proposed for deletion as an analyte from the AFCEE 3.1 QAPP. The proposed limits are taken from the AFCEE 3.1 QAPP.

QAPP Section 7.2.15.1 SW6010B ICP

KEMRON VARIANCE REQUEST:

Reporting limit (RL) variances for the following analytes in water:

Analyte	AFCEE RL (mg/L)	Proposed RL (mg/L)
Zinc	0.01	0.02

JUSTIFICATION:

The proposed RL will meet the project requirements.

QAPP Section 7.2.17.17 SW7000 Method Variance - Water

AFCEE REQUIREMENT:

AFCEE projects often specify that arsenic, antimony, chromium, cadmium, lead, selenium, thallium and vanadium shall be performed by their respective 7000 – GFAA methods:

Metal	Method	AFCEE RL (mg/L)
Arsenic	7060A	0.005
Chromium	7191	0.005
Cadmium	7131A	0.001
Lead	7421	0.005
Vanadium	7911	0.004
Antimony	7041	0.005
Selenium	7740	0.005
Thallium	7841	0.001

KEMRON VARIANCE REQUEST:

Method Variance:
KEMRON requests a variance to use Method 6010B or 6020A in lieu of the GFAA methods. Analyzing these metals by ICP-ABS or ICP-MS will not elevate the reporting limits, but will eliminate the inherent errors of GFAA methods:

Metal	Method	Proposed RL (mg/L)
Arsenic	6010B/6020A	0.005
Chromium	6010B	0.005
Cadmium	6010B	0.001
Lead	6010B/6020A	0.005
Vanadium	6010B	0.004
Antimony	6020A	0.005
Selenium	6020A	0.005
Thallium	6020A	0.001

JUSTIFICATION:

The proposed RLs are equal to the 7000 method RLs and meet the project DQOs.

QAPP Section 7.2.1.1 - AFCEE 7000 Method Variance - Soil

AFCEE REQUIREMENT:

AFCEE DQOs often specifies that arsenic, antimony, selenium, thallium, chromium, cadmium, lead and vanadium be performed by their respective 7000 – GFAA methods:

KEMRON VARIANCE REQUEST:

Method Variance:
KEMRON requests a variance to use Method 6010B or 6020A in lieu of the GFAA methods. KEMRON will use a method that will meet the project action limits, either by ICP-AES or ICP-MS. The following RLs are proposed:

	AFCEE 7000 RL (mg/kg)	Proposed 6010 RL (mg/kg)	Proposed 6020A RL (mg/kg)
Antimony	0.5	1	0.2
Arsenic	0.5	1	0.5
Lead	0.5	1	0.5
Selenium	0.5	1	0.5
Vanadium	0.4	0.5	N/A
Chromium	0.5	0.5	N/A
Cadmium	0.1	0.1	N/A
Thallium	0.1	2	0.1

JUSTIFICATION:

Project DQOs will not be affected, and the inherent errors of GFAA methods will be eliminated.

QAPP Section 7.2.1.2 - AFCEE Reporting Limits - Soil

KEMRON VARIANCE REQUEST:

Reporting limit variance for the following analyte:

Analyte	AFCEE RL (mg/kg)	Proposed RL (mg/kg)
Thallium	0.1	0.25

JUSTIFICATION:

The laboratory MDL does not support the AFCEE RL. This variance is needed if 7000 methods are required.

KEMRON VARIANCE REQUEST:

Reporting limit variance for the following analyte:

Analyte	AFCEE RL (mg/L)	Proposed RL (mg/L)
Thallium	0.001	0.005
Antimony	0.005	0.006

JUSTIFICATION:

The laboratory MDLs for the 7000 methods do not support the AFCEE RL.This variance is needed if 7000 methods are required.

MEMORANDUM

TO: Rich Habrukowich, Versar, Bristol, PA

FROM: Donna Oswald, Versar, Lombard, IL DO

DATE: November 7, 2002

RE: **Data Validation/Usability Report for Plattsburg AFB**
Old Small Arms Range, Post Excavation Confirmation Soil Samples
Kemron SDGs L0209256, L0209402, L0209417

1.0 INTRODUCTION

On September 12, 2002 five post excavation sidewall and bottom confirmation soil samples plus one duplicate sample, were collected at Plattsburgh AFB Old Small Arms Range, Site SS-033 (sidewall: SARS and bottom: SARB) and sent to Kemron Environmental Services (Kemron), located in Marietta, Ohio, for analysis. Samples were analyzed for total arsenic by EPA SW846 Method 6010B. On September 18, 2002 bottom sample location SARB-01 was re-sampled for confirmation purposes after supplemental excavation activities. The receipt temperature of the sample was 7C, therefore on September 23, 2002, sample location SARB-01 was re-sampled. The sample analysis results were reported in Kemron SDGs L0209256 (9/12/02 sampling event), L02090402 (9/18/02 event) and L02090417 (9/23/02 event). Analyses were preformed in accordance with the Air Force Center for Environmental Excellence (AFCEE) Quality Assurance Project Plan (QAPP) Version 3.0 (March 1998) except as noted in the approved variances section. The analytical results are presented in Table 2.

The data were qualified in accordance with the validation protocols in the AFCEE QAPP, Version 3.0 (March 1998). The laboratory performed the initial review of the data package, and qualified the data in accordance with their internal QC requirements. Final qualification of the data was made by the Versar project chemist based on the results of the data validation. The following items were reviewed during the data validation process: chain of custody, sample condition upon receipt, extraction/analysis holding times, method detection/reporting limits, laboratory control sample (LCS) recoveries, initial and continuing calibrations, second source calibration verification standards, laboratory method matrix spike/ matrix spike duplicate (MS/MSD) analysis results, field duplicate precision, field QC blank contamination and report completeness.

The hierarchy of AFCEE qualifiers from most to least severe are as follows; "R" (rejected), "M" (matrix effect present), "F" (results above method detection limit, but below reporting limit), "J" (estimated value), "B" (blank contamination) and "U" (not detected).

11/8/2002

Table 2
Arsenic Results
(mg/kg)

Kemron SDG L02-09-256

	RDL	MDL	TAGM	SARB-01-2 L0209256-01 9/12/2002	SARB-01-2A L0209256-02 9/12/2002	SARS-04-2 L0209256-03 9/12/2002	SARB-05-2 L0209256-04 9/12/2002	SARS-10-2 L0209256-05 9/12/2002	SARS-11-2 L0209256-06 9/12/2002
				Result Qual[1]	Result Qual[1]	Result Qual[1]	Result Qual[1]	Result Qual[1]	Result Qual[1]
Arsenic	5	0.5	7.5	20.1	24.8	1.76 F	1.08 F	1.32 F	0.899 F
% Solids	1	NA	NA	86	83	87	87	91	84

Kemron SDG L02-09-402

	RDL	MDL	TAGM	SARB-01-3 L0209402-01 9/18/2002
				Result Qual[1]
Arsenic	1	0.35	7.5	1.07
% Solids	1	NA	NA	97

Kemron SDG L02-09-417

	RDL	MDL	TAGM	SARB-01-3-01 L0209417-01 9/23/2002
				Result Qual[1]
Arsenic	1	0.35	7.5	0.897 F
% Solids	1	NA	NA	97

NOTES:
MDL - Laboratory Method Detection Limit
RL - Reportable Limit
TAGM - Site background or NYSDEC TAGM#4046 Soil Clean-up Objective, Appendix A, Table 4, Column 5.

1) Qualifiers:
F: Result is below the RL and qualitatively acceptable but quantitatively unreliable due to uncertainty in precision near the limit of detection.

The samples were received by Kemron under proper chain-of-custody. The temperatures of the sample coolers upon receipt at the laboratory were 1°C, 7°C and 5°C respectively. Two of the coolers were outside AFCEE QAPP criteria of 4 ± 2°C, however the sample containers were intact upon receipt and the samples were not impacted. Laboratory log-in records indicate that the coolers contained wet ice upon receipt. EPA does not require soil samples submitted for metal analysis to be shipped under refrigeration.

2.0 VALIDATION

All calibration requirements as summarized in Attachment A were met for all samples. All other QC criteria were met. Several target analytes were detected below the RL but above the MDL. They are considered to be trace levels and were qualified "F" in accordance with the QAPP. F qualified results are considered to be qualitatively acceptable but quantitatively suspect due to poor analytical precision near the limit of detection.

Sample SARB-01-2A was used as the MS/MSD for samples analyzed for Arsenic by method 6010B. QAPP specific criteria for matrix spike accuracy and precision were met. Sample SARB-01-2 was analyzed in duplicate by the laboratory. There is no QAPP requirement for laboratory derived duplicate analyses. Duplicate results were therefore reviewed based on USEPA CLP National Functional Guidelines (NFG) for Inorganic Data Review (EPA-540/R-94-013). Laboratory duplicates are based on replicate sample aliquots obtained from the same sample jar after homogenization in the laboratory and thus are a measure of laboratory variability (including but not limited to that introduced during subsampling, preparation and analysis and due to instrumentation variability). NFG precision criteria of RPD ≤ 20% were met.

Samples SARB-01-2 and SARB-01-2A were a field duplicate pair for SDG L0209256 for Arsenic. No criteria for the evaluation of field duplicate results are provided in the QAPP, therefore guidance provided for review of laboratory duplicates in the NFG were used. Matrix spike/matrix spike duplicate relative percent difference (RPD) criteria were used to evaluate results greater than 5 times the reporting limit (RL). Matrix spike RPD criteria serve as a lower estimate of field precision as they do not include variability introduced by field sample collection activities as the sample aliquots are taken from a single jar after homogenization in the laboratory. Results less than 5 times the RL were evaluated against criteria of ± 2 times the RL. Field precision criteria were met for Arsenic in the field duplicate pair submitted in SDG L0209256.

3.0 COMPLETENESS

The AFCEE QAPP goal for completeness is 90% for soil matrixes. Percent completeness is defined as the number of valid results divided by the total number of individual target compound results. Valid results are those that have not been rejected (qualified "R"). The percent completeness was 100% for this event.

ATTACHMENTS

Attachment A

Initial Calibration quality control requirements for reportable analytes

QC requirement	multi-point calib.	Multi-point %RSD or r^2 OK	Low standard < PQL	Second Source Standard (SSC)	SSC %D OK
Analytical Method					
6010B	x	X	x	x	x

Continuing Calibration quality control requirements for reportable analytes

QC requirement	Continuing Calibration Verification Standard (CCV)	CCV %D OK
Analytical Method		
6010B	x	x

CHAIN OF CUSTODIES

COC No. A 21477

109 Starlite Park
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: Versar, Inc

Project Contact: Bryan Foley
Contact Phone #: 215-913-1132

Turn Around Requirements: 24 hour TAT
Location: Plattsburgh, AFB

Project #: 104500-4521-141
Project Name: Small Arms Range

Sampler (print): Bryan Foley
Signature:

Program: ☐ NPDES ☒ AFCEE ☐ RCRA ☐ USAGE ☐ Other

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF CONTAINERS	Hold	A5	ADDITIONAL REQUIREMENTS
SARB-01-2		X	9/12/02	0630		X	1		X	
SARB-01-2A		X	9/12/02	0632		X	1		X	
SARS-04-2		X	9/12/02	0634		X	1		X	
SARB-05-2		X	9/12/02	0636		X	1		X	
SARS-10-2		X	9/12/02	0638		X	1		X	
SARS-11-2		X	9/12/02	0640		X	1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	9/12/02	1040					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Cooler Temp in °C	Remarks:
			Brenda Gregory	9/13/02	1001	1	OK Dated Shipped Intact

*Homogenize all composite samples prior to analysis

11/07/02 19:23 FAX 630 268 0555 VERSAR INC. ☒004

COC No. B 105434

109 Starlite Park
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: VERSAR

Project Contact: BRYAN FOLEY

Contact Phone #: 215 913 1132

Turn Around Requirements: RUSH 24hr TAT

Location: PLAINSBURG NEB

Project #: 104500 4521 4411

Project Name: SMALL ARMS RANGE

Sampler (print): BRYAN FOLEY

Signature:

Program: ☐ NPDES ☑ AFCEE ☐ RCRA ☐ USACE ☐ Other

Mail Report To:

Sample I.D. No	Location I.D.	SBD	SED	Date	Time	Comp*	Grab	NUMBER of CONTAINERS		Comments	BACODE	COOLER ID	ERPIMS REQUIRED FIELDS: LOT CONTROL NUMBERS ABLOT	EBLOT	TBLOT
SARB-01-03			X	9/18/02	10:00		X	1	X 45						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	9/18/02	15:20					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Cooler Temp in °C	Remarks:
				9/19/02	957	7	On ice

* Homogenize all composite samples prior to analysis

Page ____ of ____

11/07/02 19:23 FAX 630 268 0555 VERSAR INC. 005

COC No. A 35356

109 Starlite Park
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: VERSAR

Project Contact: BRYAN FOLEY

Contact Phone #: 215 413 1132

Turn Around Requirements: 24 hr

Location: PLATTSBURGH AFB

Project #: 104500 4521 441

Project Name: SMALL ARMS RANGE

Sampler (print): BRYN FOLEY

Signature:

Program: ☐ NPDES ☑ RFCEE ☐ RCRA ☐ USAGE ☐ Other

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF CONTAINERS	Hold	As	% Solids	ADDITIONAL REQUIREMENTS
SARB-01-3-01		X	9/23/02	14:40			1		X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	9/23/02	15:30					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Cooler Temp in °C	Remarks:
			Brenda Gregory	9/24/02	1240	5	C/C Naked Sb intact bg

*Homogenize all composite samples prior to analysis

Page ____ of ____

11/07/02 19:23 FAX 630 268 0555 VERSAR INC. 006

CASE NARRATIVE

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0209256

CHAIN OF CUSTODY:

The chain of custody number was 21477.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperature was 1° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Vicky Lauer DATE: 9/13/02

REPORT NARRATIVE
METALS

KEMRON Login No: L0209256

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JYH REVIEWED: Maureen Beery DATE: 09/18/02

Rev. 6/00

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0209402

CHAIN OF CUSTODY:

The chain of custody number was 105434.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperature was 7° C.

SAMPLE MANAGEMENT:

All samples received were intact.
All samples were put on hold pending recollection. The arsenic sample was taken off of hold 9-23-02 for priority analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: _____ DATE: 9-23-2

REPORT NARRATIVE
METALS

KEMRON Login No: L0209402

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JYH REVIEWED: Esther L. Pfahler DATE: 9/27/02

Rev. 6/00

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0209417

CHAIN OF CUSTODY:

The chain of custody number was 35356.

SHIPMENT CONDITIONS:

The chain of custody forms were received sealed in a cooler. The cooler temperature was 5° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: J Mullins DATE: 9-25-2

REPORT NARRATIVE
METALS

KEMRON Login No: L0209417

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JVH REVIEWED: Sheri L. Adams DATE: 10/11/02

Rev. 6/00

VARIANCES

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
ENVIRONMENTAL RESTORATION SERVICES
BROOKS AFB, TX 78235

29 Nov 00

MEMORANDUM FOR HQ AFCEE/ERB
ATTENTION: Roy Willis/RTC/Plattsburg AFB

FROM: Burt Harrison
Environmental Chemistry Consultant
AFCEE/ERC
3207 North Road
Brooks AFB, Tx 78235

SUBJECT: Environmental Chemistry Review of the Kemron Laboratory QAPP Variances Prepared by Versar for the Plattsburg AFB Project.

References: (a) Handbook for the Installation Restoration Program (IRP) - Remedial Investigation/Feasability Studies (RI/FS), AFCEE, Sept. 1993. (b) U.S. EPA Test Methods for Evaluating Solid Wastes (SW 846), third edition, July 1992. (c) HQ AFCEE Quality Assurance Project Plan, March 1998.

A review of the Quality Assurance Project Plan variances for the Plattsburg AFB, NY project prepared by Versar are acceptable with the following exceptions. Recommend sample results be reported on a dry weight basis except for SW5035 samples where it is not possible. Concur with all Reporting Limit variances if approved by the New York State RPM and the USEPA RPM. Do not concur with calibration variances. Do not concur with recovery limits lower than 20% for any analyte for any analytical procedure. Concur with the MDL variance request after a survey of a number of AFCEE laboratories concerning this MDL issue requirement.

If you have any questions regarding this review or these comments, please contact me at (210) 536-5226.

Burt Harrison
Environmental Chemistry Consultant
Consultant Operations Division
AFCEE/ERC

KEMRON Environmental Services, Inc.
Variance Request AFCEE QAPP Version 3.0, March 1998
Versar – Plattsburgh, NY
Revised 11/20/00

QAPP Section 4.3.1 MDL Spike Level

AFCEE REQUIREMENT:

Item (6) of Section 4.3.1 states "If the spike level in step 2 is more than five times the calculated MDL, repeat the process using a smaller spiking level."

VARIANCE REQUEST:

The laboratory requests a variance to change "five times" to read "ten times".

JUSTIFICATION:

The analytes that fail the "five times" criteria are on those instruments or methods that are very precise and have low relative standard deviations. Any procedure with a relative standard deviation less than 6.67% (at the spiked level) will produce MDLs that do not meet the "fives times" criteria. Furthermore, this process tends to underestimate the MDL, so repeating the process at a lower spiking level may not produce meaningful data, particularly, if the spike level is below the quantitation limit (lowest calibration standard).

If so desired, the MDLs for those few analytes that fail the "five times" criteria MDL could be assigned a value equal to one-tenth the spike level, or one-half the project required RL, whichever is higher. This will assure that all project DQOs related to the MDLs and RLs will be met.

KEMRON meets the EPA criteria that the spike concentration should not exceed ten times the estimated MDL and AFCEE has accepted this interpretation on previous projects.

QAPP Section 8.2 – Wet Weight vs Dry Weight

AFCEE REQUIREMENT:

Section 8.2 of the AFCEE QAPP V3.0 requires that "A wet weight aliquot of sample equivalent to the method specified dry weight aliquot of sample shall be taken for analysis."

KEMRON VARIANCE REQUEST:

The laboratory requests a variance to allow the method prescribed sample weights to be determined on the "as-received" basis, as specified in SW846.

JUSTIFICATION:

1) Increasing the amount of wet weight changes the sample/solvent ratios, which may significantly reduce the recovery of analytes from the matrix, resulting in poor surrogate recovery and more R flagged data. Altering the sample/solvent reagent ratios is a direct violation of the SW-846 methods.2) Organic extraction methods such as 3540, 3545 and 3550 have a limit on the quantity of sample they can effectively process. 3) The QAPP procedure cannot be applied to samples collected by method 5035 for volatile organic analysis.

QAPP Section 7.5.9.1 SW8260 Reporting Limits

KEMRON VARIANCE REQUEST:

Reporting limit (RL) variances for the following analytes:

Analyte	AFCEE RL (ug/L)	Proposed RL (ug/L)
1,1,2,2 Tetrachloroethane	0.4	0.5
1,1-Dichloroethane	0.4	0.5
1,2,3-Trichlorobenzene	0.3	1
1,2,4-Trichlorobenzene	0.4	2
1,2-Dichlorobenzene	0.3	1
1,2-Dichloropropane	0.4	0.5
1,3-Dichloropropane	0.4	0.5
1-Chlorohexane	0.5	1
1,4-Dichlorobenzene	0.3	1

2-Chlorotoluene	0.4	1
Benzene	0.4	0.5
Bromobenzene	0.3	1
Bromochloromethane	0.4	0.5
Bromodichloromethane	0.8	1
Chlorobenzene	0.4	0.5
Chloroform	0.3	0.5
Ethylbenzene	0.6	1
Methylene Chloride	0.3	2
n-propylbenzene	0.4	1
Naphthalene	0.4	1
Styrene	0.4	1
Trichlorofluoromethane	0.8	1
Dibromochloromethane	0.5	0.6
1,2-Dichloroethane	0.6	0.7
m,p-Xylene		1

JUSTIFICATION:

The laboratory low calibration standard is not at the APCEB RL. The proposed RL will meet the project requirements.

APCEE REQUIREMENT:

Table 7.2.9-1 lists m-Xylene and p-Xylene as separate analytes.

KEMRON VARIANCE REQUEST:

KEMRON requests a variance to report m-Xylene and p-Xylene as one analyte, since the compounds co-elute.

[redacted]

VARIANCE REQUEST:

KEMRON requests that method 5035 soil preservation be limited to freezing and that the holding time be accepted as 14 days.

JUSTIFICATION:

This variance is needed to prevent the degradation of performance of several (8260) target analytes and the failure of these analytes to meet the QAPP 3.0 quality control requirements for the second source verification and continuing calibration verification (CCV). The analytes most affected by affected by the sodium bisulfate are clorodifluoromethane, chloromethane, vinyl chloride, bromomethane, chloroethane, and trichlorofluromethane. These compounds have a high probability of failing ICV/CCV criteria, resulting in R flags on all samples. Using the freezing option will eliminate these problems. The freezing option and 14-day hold time is being accepted by some states and selected US-EPA regions.

[redacted]

VARIANCE REQUEST:

KEMRON requests a variance to change the second source initial calibration verification (ICV) and continuing calibration verification (CCV) criteria from +/- 25 % to +/- 40% for clorodifluoromethane, chloromethane, vinyl chloride, bromomethane, chloroethane, and trichlorofluromethane.

JUSTIFICATION:

These compounds are very prone to ICV/CCV failure when sodium bisulfate is used as a preservative. Without the variance these compounds will probably have to be R-flagged.

[redacted]

AFCEE REQUIREMENT:

Table 7.2.10-2 lists the acceptance limit for phenol-D5 as 25-125 % recovery in water.

KEMRON VARIANCE REQUEST:

KEMRON requests a variance to use 10 – 125 % recovery as the acceptance limit in water

JUSTIFICATION:

Phenol recovery above 10% is not achievable routinely due to poor extraction efficiency. Industry-wide statistics do not support the 25 – 125 % recovery limit.

QAPP Section 7.2.1 SW8270 LCS Control Limits

AFCEE REQUIREMENT: see table below

VARIANCE REQUEST:

LCS Control Limit variances for 8270 compounds in water:

Compound	AFCEE LCS LIMITS	PROPOSED LCS LIMITS
Phenol	25-125	20-125
2-Chloronaphthalene	60-125	49-120
Hexachlorocyclopentadiene	Delete as a target analyte	
Benzoic Acid	25-162	20-125
3,3'-Dichlorobenzidine	29-175	20-125
Phenol-d5 (surrogate)	25-125	20-125

JUSTIFICATION:

These compounds are industry-wide poor performers and consistently give recoveries below the AFCEE lower control limits. Hexachlorocyclopentadiene has been proposed for deletion as an analyte from the AFCEE 3.1 QAPP. The proposed limits are taken from the AFCEE 3.1 QAPP.

QAPP Section 7.2.1.5.1 SW6010B ICP

KEMRON VARIANCE REQUEST:

Reporting limit (RL) variances for the following analytes in water:

Analyte	AFCEE RL (mg/L)	Proposed RL (mg/L)
Zinc	0.01	0.02

JUSTIFICATION:

The proposed RL will meet the project requirements.

QAPP Section 7.2.1.2.4 SW7000 Method Variance - Water

AFCEE REQUIREMENT:

AFCEE projects often specify that arsenic, antimony, chromium, cadmium, lead, selenium, thallium and vanadium shall be performed by their respective 7000 – GFAA methods:

Metal	Method	AFCEE RL (mg/L)
Arsenic	7060A	0.005
Chromium	7191	0.005
Cadmium	7131A	0.001
Lead	7421	0.005
Vanadium	7911	0.004
Antimony	7041	0.005
Selenium	7740	0.005
Thallium	7841	0.001

KEMRON VARIANCE REQUEST:

Method Variance:
KEMRON requests a variance to use Method 6010B or 6020A in lieu of the GFAA methods. Analyzing these metals by ICP-ABS or ICP-MS will not elevate the reporting limits, but will eliminate the inherent errors of GFAA methods:

Metal	Method	Proposed RL (mg/L)
Arsenic	6010B/6020A	0.005
Chromium	6010B	0.005
Cadmium	6010B	0.001
Lead	6010B/6020A	0.005
Vanadium	6010B	0.004
Antimony	6020A	0.005
Selenium	6020A	0.005
Thallium	6020A	0.001

JUSTIFICATION:

The proposed RLs are equal to the 7000 method RLs and meet the project DQOs.

[redacted]

AFCEE REQUIREMENT:

AFCEE DQOs often specifies that arsenic, antimony, selenium, thallium, chromium, cadmium, lead and vanadium be performed by their respective 7000 – GFAA methods:

KEMRON VARIANCE REQUEST:

Method Variance:
KEMRON requests a variance to use Method 6010B or 6020A in lieu of the GFAA methods. KEMRON will use a method that will meet the project action limits, either by ICP-ABS or ICP-MS. The following RLs are proposed:

	AFCEE 7000 RL (mg/kg)	Proposed 6010 RL (mg/kg)	Proposed 6020A RL (mg/kg)
Antimony	0.5	1	0.2
Arsenic	0.5	1	0.5
Lead	0.5	1	0.5
Selenium	0.5	1	0.5
Vanadium	0.4	0.5	N/A
Chromium	0.5	0.5	N/A
Cadmium	0.1	0.1	N/A
Thallium	0.1	2	0.1

JUSTIFICATION:

Project DQOs will not be affected, and the inherent errors of GFAA methods will be eliminated.

[redacted]

KEMRON VARIANCE REQUEST:

Reporting limit variance for the following analyte:

Analyte	AFCEE RL (mg/kg)	Proposed RL (mg/kg)
Thallium	0.1	0.25

JUSTIFICATION:

The laboratory MDL does not support the AFCEE RL. This variance is needed if 7000 methods are required.

KEMRON VARIANCE REQUEST:

Reporting limit variance for the following analyte:

Analyte	AFCEE RL (mg/L)	Proposed RL (mg/L)
Thallium	0.001	0.005
Antimony	0.005	0.006

JUSTIFICATION:

The laboratory MDLs for the 7000 methods do not support the AFCEE RL. This variance is needed if 7000 methods are required.

APPENDIX C

WASTE DISPOSAL CHARACTERIZATION SAMPLE RESULTS

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Versar, Inc. Division 35
1900 Frost Road
Suite 110
Bristol, PA 19007
Attention: Rich Habrukowich

PO Number:
Account Number: VERSAR-PA-318

Login #: L0110388
Report Date: 11/01/01
Work ID: SMALL ARMS RANGE/PLATTSBURGH
Date Received: 10/18/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0110388-01	SAR-01		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON ENVIRONMENTAL SERVICES

TCLP METALS

Lab Sample ID: L0110388-01
Client Sample ID: SAR-01
Site/Work ID: SMALL ARMS RANGE/PLATTSBURGH

Matrix: Leachate
Collected: 10/17/01 11:00
Units: mg/L

% Solid: 82
COC Info: 18701/
TCLP Ext. Date: 10/18/01

Analyte	Result	Qualifiers	RL	Regulatory Limit	Method	Prep. Date	Analysis Date	Time	Dil Type
Silver, TCLP.....		U	0.10	5	6010B\3015	10/19/01	10/22/01	11:29	N/A
Arsenic, TCLP.....		U	1.0	5	6010B\3015	10/19/01	10/22/01	11:29	N/A
Barium, TCLP.....	0.25		0.10	100	6010B\3015	10/19/01	10/22/01	11:29	N/A
Cadmium, TCLP.....		U	0.10	1	6010B\3015	10/19/01	10/22/01	11:29	N/A
Chromium, TCLP.....		U	0.20	5	6010B\3015	10/19/01	10/22/01	11:29	N/A
Mercury, TCLP.....		U	0.0002	0.2	7470A\METHOD	10/18/01	10/23/01	11:00	N/A
Lead, TCLP.....		U	1.0	5	6010B\3015	10/19/01	10/22/01	11:29	N/A
Selenium, TCLP.....		U	1.0	1	6010B\3015	10/19/01	10/22/01	11:29	N/A

Lab Sample ID: L0110388-01
Client Sample ID: SAR-01
Site/Work ID: SMALL ARMS RANGE/PLATTSBURGH

Matrix: Soil
Collected: 10/17/01 11:00

% Solid: 82
COC Info: 18701/

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	weight %	82		1.0	1	N/A	TMM	10/18/01	11:25	D2216-90
Arsenic, Total.....	mg/kg	34.8		1.0	.82	N/A	SLP	10/22/01	20:05	6010B\3050B

RL = Reporting Limit

APPENDIX D

WASTE PROFILE AND DISPOSAL WEIGHT TICKETS

CASELLA WASTE MANAGEMENT, INC.
Special Waste Administration Office
104 River Road · Allenstown, NH 03275
Tel. #603-485-2129 · VT Waste #800-883-8877 · Fax #603-485-1892

SPECIAL WASTE CHARACTERIZATION PROFILE

Disposal Facility Location

Please indicate destination facility and disposal option by placing an (X) in the appropriate box below.

☐ Grasslands Composting P.O. Box 728 Malone, NY 12953 Tel: (518) 497-0406 Note: Complete attached "Grasslands Reporting Requirements"	☐ No. Country Environmental Services (NCES) Trudeau Road Bethlehem, NH 03574 Tel: (603) 869-3344 Fax: (603) 869-2152 Disposal Option: ☐ Waste ☐ Cover	☐ New England Waste Services of VT (W-USA) Airport Road Coventry, VT 05825 Tel: (802) 334-5795 Fax: (802) 334-2676 Disposal Option: ☐ Waste ☐ Cover	☒ New England Waste Services of NY 286 Sand Road Morrisonville, NY 12962 Tel: (518) 563-5514 Fax: (518) 563-5586 Disposal Option: ☐ Waste ☐ Cover

1) Applicant CONSOLIDATED ENVIRONMENTAL OPTIONS	Address 21227 EDGEWOOD CT STERLING, VA 20165	Phone 757-491-0977 703-404-3900	Contact Person LARRY SCHNEIDER
2) Hauler	Address	Phone	Contact Person
3) Generator Air Force Base Conv. Agcy. (AFBCA)	Address 22 U.S. Oval SUITE 2200 Plattsburgh AFB NY 12903	Phone 518-563-2871	Contact Person STEVE GRANGER

4) Location of Facility Generating Waste
Plattsburgh AFB, Plattsburgh, NY

5) Description of Facility Generating Waste
Plattsburgh AFB, Plattsburgh, NY; former old small arms range

6) Previous Disposal Location N/A	Address	Phone	Contact Person

7) Total Amount of Waste To Be Delivered (Tons/Cubic Yards)
450 - 500 tons or 300 cy

8) Frequency of Delivery (Regular/Periodic/One-Time). If regular or periodic, how often?
One-Time Event

9) Method of Delivery (Roll-Off/Dump Trailer/Other). If other, specify.
Dump Trailers

10) Description of waste (including density in pounds/cubic yards).
Sandy soil contaminated with ~~arsenic~~; density 1.5 tons/cy

Waste Characterization Data

11) Is the waste classified as a hazardous waste as defined by USEPA, or State of origin, or State where disposed? (If yes, explain.)

No

12) Describe all hazardous or nuisance properties associated with the waste.

None

13) Does the waste require any special handling or disposal procedures? If so, explain.

None

14) Analytical Data Submitted (TCLP/Other).

Metals-TCLP ; % Solids , Total Arsenic

Casella Waste Management, Inc. requires, at a minimum, the submittal of full TCLP (Metals-RCRA 8, VOC-EPA 8260, SVOC-EPA 8270) and % solids testing results for any special waste submitted for landfill acceptance unless the applicant can provide an acceptable justification for submittal of less comprehensive data. The generator is responsible for proper waste characterization.

15) Justification for not submitting full TCLP data. Site was previously remediated, but the backfill soil was found to contain elevated levels of arsenic above New York State guidelines.

CERTIFICATION

I hereby certify that all information submitted on this form and all supplemental materials is complete and accurate to the best of my knowledge and ability to determine. I further certify that there is no deliberate or willful omission of data necessary to characterize the waste material and that all known or suspected hazards have been disclosed.

Signature:	**Print name:**	**Print Title:**	**Date:**
[signature]	STEVE GAGNIER	ENV. ENGR.	7 NOV 2001

DISPOSITION (to be completed by Casella Waste Management, Inc.)

Received by:		**Date Received:**	**Date Logged in:**
Submitted by:		**Project Name:**	
Submitted to Michael Vinal	**Date:**	**Michael Vinal Approval**	**Date:**
Submitted to David Adams	**Date:**	**David Adams Approval**	**Date:**
Submitted to NHDES/VTDEC/NYDEC	**Date:**	**NHDES/VTDEC/NYDEC Approval**	**Date:**
Notes:			

SUBMIT ALL DATA TO:

Michael J. Vinal

Casella Waste Management, Inc.

104 River Road

Allenstown, New Hampshire 03275

Telephone VT Waste (800) [illegible] ◆ (603-[illegible]-2129

Facsimile (603)-[illegible]

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000256542
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807	CASELLA/MRTRA	Gross	74120 lb	Scale	1	Inbound	07:40
02	CASELLA/LSETRAILER	Tare	33560 lb	Scale	1	Outbound	07:53
SOILC	CONTAMINATED SOILS						
CLINTON COUNTY, NY		Net	40560 lb				
Price/tn			20.2800 tn				

WEIGH MASTER (LAM

DRIVER

REMARKS JOHN/PAFB

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000266544
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8128	CASELLA/BLKMACK/CRAI	Gross	81280 lb	Scale	1	Inbound	07:38
7783	CASELLA/TRAILER	Tare	37600 lb	Scale	1	Outbound	07:55
SOILC	CONTAMINATED SOILS						
CLINTON COUNTY, NY		Net	43680 lb				
Price/tn			21.8400 tn				

WEIGH MASTER (LAM)

DRIVER

REMARKS CRAIG/PAFB

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000266558
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8128	CASELLA/BLKMACK/CRAI	Gross	96560 lb	Scale	1 Inbound	08:53
7783	CASELLA/TRAILER	Tare	37580 lb	Scale	1 Outbound	09:08
SOILC	CONTAMINATED SOILS	Net	58980 lb			
CLINTON COUNTY, NY			29.4900 tn			
Price/tn						

WEIGH MASTER (LAM)

DRIVER

REMARKS CRAIG/PAFB

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000266560
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807	CASELLA/MRTRA	Gross	84200 lb	Scale	1 Inbound	08:56
02	CASELLA/LSETRAILER	Tare	32860 lb	Scale	1 Outbound	09:12
SOILC	CONTAMINATED SOILS	Net	51340 lb			
CLINTON COUNTY, NY			25.6700 tn			
Price/tn						

WEIGH MASTER (LAM)

DRIVER

REMARKS JOHN/PAFB

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000266591
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8138 CASELLA/BLKMACK/CRAI
7783 CASELLA/TRAILER
SOILC CONTAMINATED SOILS
CLINTON COUNTY, NY
Price/tn

Gross 90720 lb Scale 1 Inbound 10:01
Tare 37520 lb Scale 1 Outbound 10:18
Net 53200 lb
26.6000 tn

Material $
Delivery $
Misc $
Tax $
Total $

WEIGH MASTER (LAM)

DRIVER

REMARKS CRAIG/PAFB X2

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000266596
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807 CASELLA/MRTRA
02 CASELLA/LSETRAILER
SOILC CONTAMINATED SOILS
CLINTON COUNTY, NY
Price/tn

Gross 75900 lb Scale 1 Inbound 10:05
Tare 33760 lb Scale 1 Outbound 10:24
Net 42140 lb
21.0700 tn

Material $
Delivery $
Misc $
Tax $
Total $

WEIGH MASTER (LAM)

DRIVER

REMARKS JOHN/MAROON TRANS

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000256622
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

6126 CASELLA/BLKMACK/CRAI
7763 CASELLA/TRAILER
SOILC CONTAMINATED SOILS
CLINTON COUNTY, NY
Price/tn

Gross	83220 lb	Scale	1 Inbound	11:10
Tare	37480 lb	Scale	1 Outbound	11:23
Net	45740 lb			
	22.8700 tn			

WEIGH MASTER (LAM)
DRIVER
REMARKS CRAIG/PAFB

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000256625
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807 CASELLA/MRTRA
02 CASELLA/LSETRAILER
SOILC CONTAMINATED SOILS
CLINTON COUNTY, NY
Price/tn

Gross	77020 lb	Scale	1 Inbound	11:12
Tare	33920 lb	Scale	1 Outbound	11:25
Net	43100 lb			
	21.5500 tn			

WEIGH MASTER (LAM)
RIVER
REMARKS PAFB/JOHN

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000256650
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

3128 CASELLA/BLKMACK/CRAI
7783 CASELLA/TRAILER
SOILC CONTAMINATED SOILS
CLINTON COUNTY, NY
Price/tn

Gross 86280 lb Scale 1 Inbound 12:13
Tare 37460 lb Scale 1 Outbound 12:26
Net 48820 lb
24.4100 tn

Material $
Delivery $
Misc $
Tax $
Total $

WEIGH MASTER (LAM)

DRIVER

REMARKS CRAIG/BLK TRANSFER

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :000256653
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807 CASELLA/MRTRA
02 CASELLA/LSETRAILER
SOILC CONTAMINATED SOILS
CLINTON COUNTY, NY
Price/tn

Gross 80400 lb Scale 1 Inbound 12:16
Tare 34560 lb Scale 1 Outbound 12:30
Net 45840 lb
22.9200 tn

Material $
Delivery $
Misc $
Tax $
Total $

WEIGH MASTER (LAM)

DRIVER

REMARKS JOHN

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :00026669
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8128	CASELLA/SLKMACK/CRAI	Gross	82160 lb	Scale	1 Inbound	13:17
7783	CASELLA/TRAILER	Tare	37520 lb	Scale	1 Outbound	13:36
SOILC	CONTAMINATED SOILS					
CLINTON COUNTY, NY		Net	44640 lb			
Price/tn			22.3200 tn			

WEIGH MASTER (LAM) [signature]

DRIVER [signature]

REMARKS PAFB/CRAIG

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :00026669
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807	CASELLA/MRTRA	Gross	72760 lb	Scale	1 Inbound	13:25
02	CASELLA/LSETRAILER	Tare	34660 lb	Scale	1 Outbound	13:38
SOILC	CONTAMINATED SOILS					
CLINTON COUNTY, NY		Net	38100 lb			
Price/tn			19.5500 tn			

WEIGH MASTER (LAM) [signature]

DRIVER [signature]

REMARKS PAFB/JOHN

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :00026741
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

6607	CASELLA/MRTRA	Gross	71420 lb	Scale	1	Inbound	14:35
02	CASELLA/LGETRAILER	Tare	32700 lb	Scale	1	Outbound	14:53
SOILC	CONTAMINATED SOILS						
CLINTON COUNTY, NY		Net	38720 lb				
Price/tn			19.3600 tn				

WEIGH MASTER (LAM)

DRIVER

REMARKS PAFB/JOHN

Material $
Delivery $
Misc $
Tax $
Total $

NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :00026743
Date :11/27/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21227 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8128	CASELLA/BLKMACK/CRAI	Gross	80720 lb	Scale	1	Inbound	14:34
7783	CASELLA/TRAILER	Tare	37400 lb	Scale	1	Outbound	14:55
SOILC	CONTAMINATED SOILS						
CLINTON COUNTY, NY		Net	43320 lb				
Price/tn			21.6600 tn				

WEIGH MASTER (LAM)

DRIVER

REMARKS PAFB/CRAIG

Material $
Delivery $
Misc $
Tax $
Total $

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NEWS OF NEW YORK, INC.
CLINTON CTY LANDFILL
P.O. Box 209
MORRISONVILLE NY 12962

Ticket No :0003566767
Date :11/29/01

Customer :CON10
CONSOLIDATED ENVIRONMENTAL
OPTIONS, INC.
21827 EDGEWOOD COURT
STERLING VA 20165

Order No :
Loads :
Miles :
Tons :

8807	CASELLA/MRTRA	Gross	73660	lb	Scale	1 Inbound	07:40
02	CASELLA/LSETRAILER	Tare	33840	lb	Scale	1 Outbound	07:52
SOILC	CONTAMINATED SOILS						
CLINTON COUNTY, NY		Net	40120	lb			
Price/tn			20.0600	tn			

WEIGH MASTER (LAM)

DRIVER

DENORFIA SAED/JOHN

Material $
Delivery $
Misc $
Tax $
Total $

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
286 SAND RD POB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5598

TICKET: 122752
DATE: 09/18/2002
TIME: 09:56 - 10:07

This is a Reprint Ticket

CUSTOMER: BC00053 / CONSOLIDATED P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 57640 LBS
ORIGIN: CLI / CLINTON COUNTY TARE: 36660 LBS
TRUCK: 4118CLIMS TRAILER: NET: 20980 LBS
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: NS / NORTHERN SANITATI ROUTE: NA / NON APPLICABLE
COMMENT: PAFB SOILS CELL/TANK: P3

MATERIAL	QUANTITY	UNIT
IDSW / ID SPECIAL WASTE	10.4900	ST

small ARMS Range
104500.4521.441

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: LINDA B: PCSCALE_CC OUT: LINDA B: PCSCALE_CC

Consolidated

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
186 SAND RD PDB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5598

TICKET: 123482
DATE: 09/21/2002
TIME: 09:28 - 09:38

CUSTOMER: BC00053 / CONSOLIDATED P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 49460 LBS
ORIGIN: CLI / CLINTON COUNTY TARE: 36080 LBS
TRUCK: 283 1 TRAILER: NET: 13380 LBS
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: VS / VALLEY SANITATION ROUTE: NA / NON APPLICABLE
COMMENT: PAFB SOIL CELL/TANK: P3

MATERIAL	QUANTITY	UNIT
IDCS / ID CONTAMINATED SOIL	6.6900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: SUE B: PCSCALE_CC OUT: SUE B: PCSCALE_CC

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fax to Mike Visu

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
286 SAND RD POB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5598

TICKET: 121412
DATE: 09/10/2002
TIME: 14:58 - 15:09

This is a Reprint Ticket

CUSTOMER: BC00053 / CONSOLIDATED P.O.:
HAULCUST: NO: 0 APPROVAL #: GROSS: 75520 LBS
ORIGIN: CLI / CLINTON COUNTY TARE: 36580 LBS
TRUCK: 283 I TRAILER: NET: 38940 LBS
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: VS / VALLEY SANITATION ROUTE: NA / NON APPLICABLE
COMMENT: PAFB SOILS CELL/TANK: P2

MATERIAL	QUANTITY	UNIT
IDSW / ID SPECIAL WASTE	19.4700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: [signature] Weighmaster: [signature]

IN: LINDA B: PCSCALE_CC OUT: LINDA B: PCSCALE_CC

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
286 SAND RD POB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5598

TICKET: 121519
DATE: 09/11/2002
TIME: 12:09 - 12:24

CUSTOMER: BC00053 / CONSOLIDATED P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 77300 LBS
ORIGIN: CLI / CLINTON COUNTY TARE: 37320 LBS
TRUCK: 283 1 TRAILER: NET: 39980 LBS
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: VS / VALLEY SANITATION ROUTE: NA / NON APPLICABLE
COMMENT: PAFB SOILS CELL/TANK: P2

MATERIAL	QUANTITY	UNIT
IDSW / ID SPECIAL WASTE	19.9900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: LINDA B: PCSCALE_CC OUT: LINDA B: PCSCALE_CC

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
286 SAND RD POB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5598

TICKET: 121729
DATE: 09/12/2002
TIME: 12:39 - 12:53

This is a Reprint Ticket

CUSTOMER: BC00053 / CONSOLIDATED P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 72260 LBS
ORIGIN: CLI / CLINTON COUNTY TARE: 37060 LBS
TRUCK: 283 1 TRAILER: NET: 35200 LBS
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: VS / VALLEY SANITATION ROUTE: NA / NON APPLICABLE
COMMENT: PAFB SOIL CELL/TANK: P2

MATERIAL	QUANTITY	UNIT
IDSW / ID SPECIAL WASTE	17.6000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: SUE B: PCSCALE_CC OUT: SUE B: PCSCALE_CC

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Viam

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
286 SAND RD POB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5598

TICKET: 121994
DATE: 09/13/2002
TIME: 14:08 - 14:17

This is a Reprint Ticket

CUSTOMER: BC00053 / CONSOLIDATED P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 68740 LBS
ORIGIN: CLI / CLINTON COUNTY TARE: 37840 LBS
TRUCK: 283 1 TRAILER: NET: 30900 LBS
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: VS / VALLEY SANITATION ROUTE: NA / NON APPLICABLE
COMMENT: PAFB SOIL CELL/TANK: P2

MATERIAL	QUANTITY	UNIT
IDSW / ID SPECIAL WASTE	15.4500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: SUE B: PCSCALE_CC OUT: SUE B: PCSCALE_CC

NEW ENGLAND WASTE SERVICES OF NY, INC.
CLINTON COUNTY LANDFILL & MRF
296 SAND RD POB 209 -P(518)563-5514
MORRISONVILLE NY 12962 -F(518)563-5590

TICKET: 138612
DATE: 11/11/2002
TIME: 05:41 - 09:43

CUSTOMER: BC00033 / CONSOLIDATED
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: CLI / CLINTON COUNTY
TRUCK: 282 1 TRAILER:
GENERATOR: NA / NON APPLICABLE PROFILE #: NA
HAULER: VS / VALLEY SANITATION ROUTE: NA / NON APPLICABLE
COMMENT: PAFB REPLACES #132387

P.O.:
GROSS: 74320 LBS
TARE: 38920 LBS
NET: 35400 LBS

CELL/TANK: P3

MATERIAL	QUANTITY	UNIT
ICCS / ID CONTAMINATED SOIL	17.7000	ET

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: ______ Weighmaster: SCosta

IN: SUE B: PCSCALE_CC OUT: SUE B: PCSCALE_CC

Corrected Ticket
Replaces
Ticket #
132387
(Corrected Customer Being Billed)
DECON PAD
SMALL ARMS RANGE