



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, U.S. ARMY JOINT MUNITIONS COMMAND  
1 ROCK ISLAND ARSENAL  
ROCK ISLAND, IL 61299-6000

February 14, 2003

Safety/Rad Waste Office

Mr. Bruce Jorgensen  
Nuclear Regulatory Commission  
Region III  
Decommissioning Branch  
801 Warrenville Road  
Lisle, Illinois 60532-4351

Dear Mr. Jorgensen:

In accordance with Nuclear Regulatory Commission license number SUC-1380, we are providing water sample results from Lake City Army Ammunition Plant, Independence, Missouri. We took the samples on November 13, 2002. The U.S. Army Center for Health Promotion and Preventive Medicine analyzed the samples for uranium. None of the samples exceeded the limits set by Title 10, Code of Federal Regulations, part 20, appendix B.

Our point of contact is Mr. Gary Buckrop, AMSJM-SF, (309) 782-2969/0338/0880, electronic mail address [jmc-ofc-sf@osc.army.mil](mailto:jmc-ofc-sf@osc.army.mil).

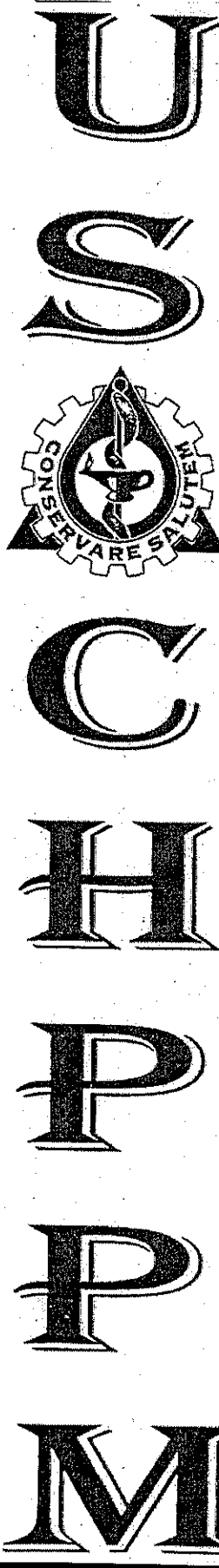
Sincerely,

Kelly W. Crooks  
Acting Ch, Safety/Rad Waste Ofc

Enclosure

Copy Furnished:

Mr. Stewart Brown, Nuclear Regulatory Commission, Mail Stop  
T7F27, 11545 Rockville Pike, Rockville, Maryland 20852-2738



CORRECTED COPY

**FINAL REPORT**

DIRECTORATE OF LABORATORY SCIENCES (DLS)

PROGRAM 26 - SUBJONO: 3236

REPORT SERIAL NO. 135570

DLS PROFILE #: 25959 - WORK ORDER #: 6904

Rock Island

03-Feb-03

Readiness Thru Health

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DEPARTMENT OF THE ARMY  
U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE  
5158 BLACKHAWK ROAD  
ABERDEEN PROVING GROUND, MARYLAND 21010-5403

REPLY TO  
ATTENTION OF

MCHB-TS-LRD ( 40-5F )

DIRECTORATE OF LABORATORY SCIENCES (DLS)  
RADIOLOGIC, CLASSIC & CLINICAL CHEMISTRY DIVISION  
FINAL REPORT  
03-Feb-03

CLIENT: Gary Buckrop  
U.S. Army Operations Sup Cmd  
1 Rock Island Arsenal

Rock Island IL 612996000  
DSN: 793-2969/0338

PROJECT SITE: Rock Island  
PROGRAM 26 SUBJONO: 3236  
DLS PROFILE #: 25959 DLS WORK ORDER #: 6904  
REPORT SERIAL NUMBER: 135570

This report shall not be reproduced except in full without the written approval of DLS. The results relate only to the specific samples identified within the report. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the US Government.

REPORT RELEASE AUTHORIZATION:

Signature: *Ronald J. Smith* Date: 3 Feb 03



Certificate# 28.02

DLS HOLDS ACCREDITATION FROM AIHA, A2LA, NLLAP, AND COLA

Readiness thru Health

CASE NARRATIVE

1. References:

- a. DARCOM Handbook 385-1.1-78, Safety Procedures for processing Depleted Uranium, August 1978.
- b. Memorandum, AMSOS-SF, 24 Sep 2002, Subject: Request for Water Sampling Kit, enclosure 1.

2. Analytical Results:

- a. Results of analyzing water samples LC-1, LCC-2, LCS-3, LC4 through LC-7, LC-2, and LC-3 for uranium, DLS ID numbers 6904001 through 6904009, are enclosed.
- b. These samples were analyzed under contract for total uranium concentration by General Engineering Laboratories (GEL) on 15 Dec 02. The following kinetic phosphorescence method was used: Total Uranium in Environmental Samples by Kinetic Phosphorescence, ASTM D 5174. The Detection Limit is 0.198 microgram per liter of uranium. All quality control from GEL contractor was within their prescribed QC limits.
- c. Sample LCS-3, DLS ID number 6904003, was a matrix spike of LC-3, DLS ID number 6904009, prepared by the CHPPM laboratory and submitted to the GEL contractor for analysis. The percent recovery for this matrix spike was 65.6%. Sample LCC-2, DLS ID number 6904002, was a matrix duplicate of LC-2, DLS ID number 6904008, prepared by the CHPPM laboratory and submitted to the GEL contractor for analysis. The relative percent difference between these samples is 176%. This value is within GEL QC limits because the second value is below the reported detection limit.

3. Point of contact. For additional information on profile 25959-3236, workorder 6904, is Mr. Thomas Beegle, DSN 584-3983.

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Report Point-of-Contact: Thomas Beegle *TB*  
 Reviewer: ADC/RJS *ARC*

List of all tests used:

DLS Procedure	Count
ASTM D 5174	9

Number of samples included in the report, by matrix:

Matrix	Quantity
Water (Ground water)	9

Analyst(s):

Analyst Code	Analyst Name	Signature
0172	GEL	<i>TB</i>

## SAMPLE SUMMARY

Sorted by DLS ID

Field ID	DLS ID	Date Collected	Matrix
LC-1	6904001	13-Nov-02	Water (Ground water)
LCC-2	6904002	13-Nov-02	Water (Ground water)
LCS-3	6904003	13-Nov-02	Water (Ground water)
LC-4	6904004	13-Nov-02	Water (Ground water)
LC-5	6904005	13-Nov-02	Water (Ground water)
LC-6	6904006	13-Nov-02	Water (Ground water)
LC-7	6904007	13-Nov-02	Water (Ground water)
LC-2	6904008	13-Nov-02	Water (Ground water)
LC-3	6904009	13-Nov-02	Water (Ground water)

ANALYTICAL DATA REPORT

(FORMAT OPTION 1)

Sorted by DLS ID

FINAL REPORT

Field ID: LC-1

DLS ID: 6904001

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	4.87 ug/L	0.198	ASTM D 5174	0172	15-Dec-02

Field ID: LCC-2

DLS ID: 6904002

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	0.0710 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

Field ID: LCS-3

DLS ID: 6904003

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	37.1 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

Field ID: LC-4

DLS ID: 6904004

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	0.165 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

Field ID: LC-5

DLS ID: 6904005

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	0.288 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

Field ID: LC-6

DLS ID: 6904006

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	0.754 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

**FINAL REPORT**

Field ID: LC-7

DLS ID: 6904007

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	1.08 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

Field ID: LC-2

DLS ID: 6904008

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	1.12 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

Field ID: LC-3

DLS ID: 6904009

ANALYTE	RESULT/UNITS	METHOD REPORTING LIMIT	ANALYTICAL METHOD	ANALYST	DATE ANALYZED
Uranium	0.267 ug/L	0.198	ASTM D 5174	0172	07-Dec-02

TERMINOLOGY/ABBREVIATIONS

Term	Description
ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CFR	Code of Federal Regulations
NIOSH	National Institute of Occupational Safety and Health