



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
US ARMY CHEMICAL SCHOOL
FORT MCCLELLAN, ALABAMA 36205-5020

16 JUL 1998

ATZN-CMA-HP (385-11m)

MEMORANDUM FOR U.S. Nuclear Regulatory Commission, Region 2, Nuclear Material
Licensing Section, ATTN: Orysia Bailey, 101 Marietta Street
N.W., Suite 2900, Atlanta, Georgia 30323-0199

SUBJECT: Response to NRC Request for Additional Information for License Termination,
License Number 01-02861-04, Docket Number 030-14759

1. Reference NRC Inspection Report No. 01-02861-04/98-01. Samples were taken at the hot cell and surrounding areas for analysis. The samples were sent to Thermo Nutech for analysis.
2. Analysis of the cinder block and soil showed high levels of naturally occurring radioisotopes. A copy of the Report of Analysis and the diagram of sample locations is attached.
3. The chemical School point of contact is Mr. John W. May, Health Physics Manager at (256) 848-5737.

FOR THE COMMANDANT

Encls

A handwritten signature in black ink, appearing to read "Daniel F. Uyesugi".

DANIEL F. UYESUGI
Colonel, U.S. Army
Assistant Commandant

Thermo NUtech

7021 Pan American Highway, N.E.
Albuquerque, New Mexico 87109
Phone (505) 345-3461
FAX (505) 761-5416

REPORT OF ANALYSIS

05/08/98

CUSTOMER: US Army Chemical School
ATTENTION: John W. May
ADDRESS: Bldg. 241-C Attn. ATZN-CMA-HP
CITY: Fort McClennan, AL 36205
W.O. NO.: 98-05-139

Cinder Block-Gamma Spectroscopy
Soil-Gamma Spectroscopy, Strontium 90

MATRIX/ANALYSIS

CUSTOMER ORDER NUMBER

SAMPLES RECEIVED

Customer Identification	Date Collected	Type of Analysis	Sample Wt. Wet/Dry(g)	pci/g (dry)	Analysis Date
SAMPLE #1 (CINDER BLOCK)	05/06/98	Gamma	956.5/936.9		05/06/98
		Cs137		<0.07	
		Co60		<0.05	
		Th232		0.94±0.39	
		Ra228		0.94±0.39	
		Ac228		0.94±0.39	
		Th228		0.78±0.27	
		Tl208		0.72±0.25	
		Ra226		1.93±0.19	
		U238		2.81±1.30	
		K40		3.08±0.83	
		U235		0.19±0.11	
SAMPLE #2 (CINDER BLOCK)	05/06/98	Gamma	604.1/598.4		05/06/98
		Cs137		<0.07	
		Co60		<0.06	
		Th232		2.50±0.46	
		Ra228		2.50±0.46	
		Ac228		2.50±0.46	
		Th228		2.46±0.41	
		Pb212		2.38±0.18	
		Bi214		2.68±1.24	
		Tl208		2.28±0.38	
		Ra226		3.62±0.30	
		Pb214		4.50±0.29	
		Bi214		3.73±0.31	
		U238		3.20±1.53	
		K40		8.12±1.28	
		U235		0.24±0.11	

The results relate only to the sample(s) tested.
This report should not be reproduced except in full.

REPORTED VIA TELEPHONE
 FAX *MK 5/2/98*
Mary Kamoss, Data Analyst

Kathy Burnham, Quality Assurance

PAGE 1 OF 3

REPORTED BY: *Mary Kamoss*

DATE: *05/02/98*

APPROVED BY: *Kathy Burnham*

DATE: *7-2-98*

Thermo NUtech

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Albuquerque, New Mexico 87109
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REPORT OF ANALYSIS

05/08/98

CUSTOMER **US Army Chemical School**
ATTENTION **John W. May**
ADDRESS **Bldg. 241-C Attn. ATZN-CMA-HP**
CITY **Fort McClennan, AL 36205**
W.O. NO. **98-05-139**

Cinder Block-Gamma spectroscopy
Soil-Gamma spectroscopy, Strontium 90

MATRIX/ANALYSIS

CUSTOMER ORDER NUMBER

SAMPLES RECEIVED

Customer Identification	Date Collected	Type of Analysis	Sample Wt. Wet/Dry(g)	pCi/g (dry)	Analysis Date
SAMPLE #3 (SOIL)	05/06/98	Sr90	578.8/532.9	<0.4	06/26/98
		Gamma			05/06/98
		Cs137		<0.10	
		Co60		<0.09	
		Th232		2.05±0.65	
		Ra228		2.05±0.65	
		Ac228		2.05±0.65	
		Th228		1.92±0.46	
		Pb212		1.79±0.11	
		Tl208		1.78±0.43	
		Ra226		1.41±0.28	
		Pb214		1.76±0.30	
		Bi214		1.45±0.29	
		U238		<2.97	
		K40		16.8±2.51	
		U235		<0.22	
SAMPLE #4 (SOIL)	05/06/98	Sr90	802.6/761.2	<2.4	06/26/98
SAMPLE #5 (SOIL)	05/06/98	Sr90	790.7/790.5	<0.4	06/26/98
SAMPLE #6 (SOIL)	05/06/98	Sr90	852.7/846.6	<0.4	06/26/98

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 FAX *7/2/98*
Mary Kamoss, Data Analyst

Kathy Burnham, Quality Assurance

PAGE 2 OF 3

REPORTED BY: *[Signature]* DATE: *07/02/98* APPROVED BY: *Kathy Burnham* DATE: *7-2-98*

CUSTOMER **US Army Chemical School**
 ATTENTION **John W. May**
 ADDRESS **Bldg. 241-C Attn. ATZN-CMA-HP**
 CITY **Fort McClennan, AL 36205**
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REPORT OF ANALYSIS

05/08/98

Cinder Block-Gamma Spectroscopy
Soil-Gamma Spectroscopy, Strontium 90

MATRIX/ANALYSIS

CUSTOMER ORDER NUMBER

SAMPLES RECEIVED

Customer Identification	Date Collected	Type of Analysis	Sample Wt. Wet/Dry(g)	pCi/g (dry)	Analysis Date
SAMPLE #7 (SOIL)	05/06/98	Gamma	1515.4/1493.8		05/06/98
		Cs137		<0.07	
		Co60		<0.06	
		Th232		0.99±0.35	
		Ra228		0.99±0.35	
		Ac228		0.99±0.35	
		Th228		1.08±0.31	
		Pb212		0.70±0.12	
		Tl208		1.00±0.29	
		Ra226		0.83±0.23	
		Pb214		1.17±0.21	
		Bi214		0.86±0.24	
		U238		<0.99	
		K40		4.51±1.02	
		U235		<0.16	

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REPORTED VIA TELEPHONE
 FAX *JK*
 Mary Kamoss, Data Analyst *JK*

Kathy Burnham, Quality Assurance ^{PAGE 3} _{OF 3}

REPORTED BY *Mary Kamoss*

DATE *07/02/98*

APPROVED BY: *Kathy Burnham*

DATE *7-2-98*

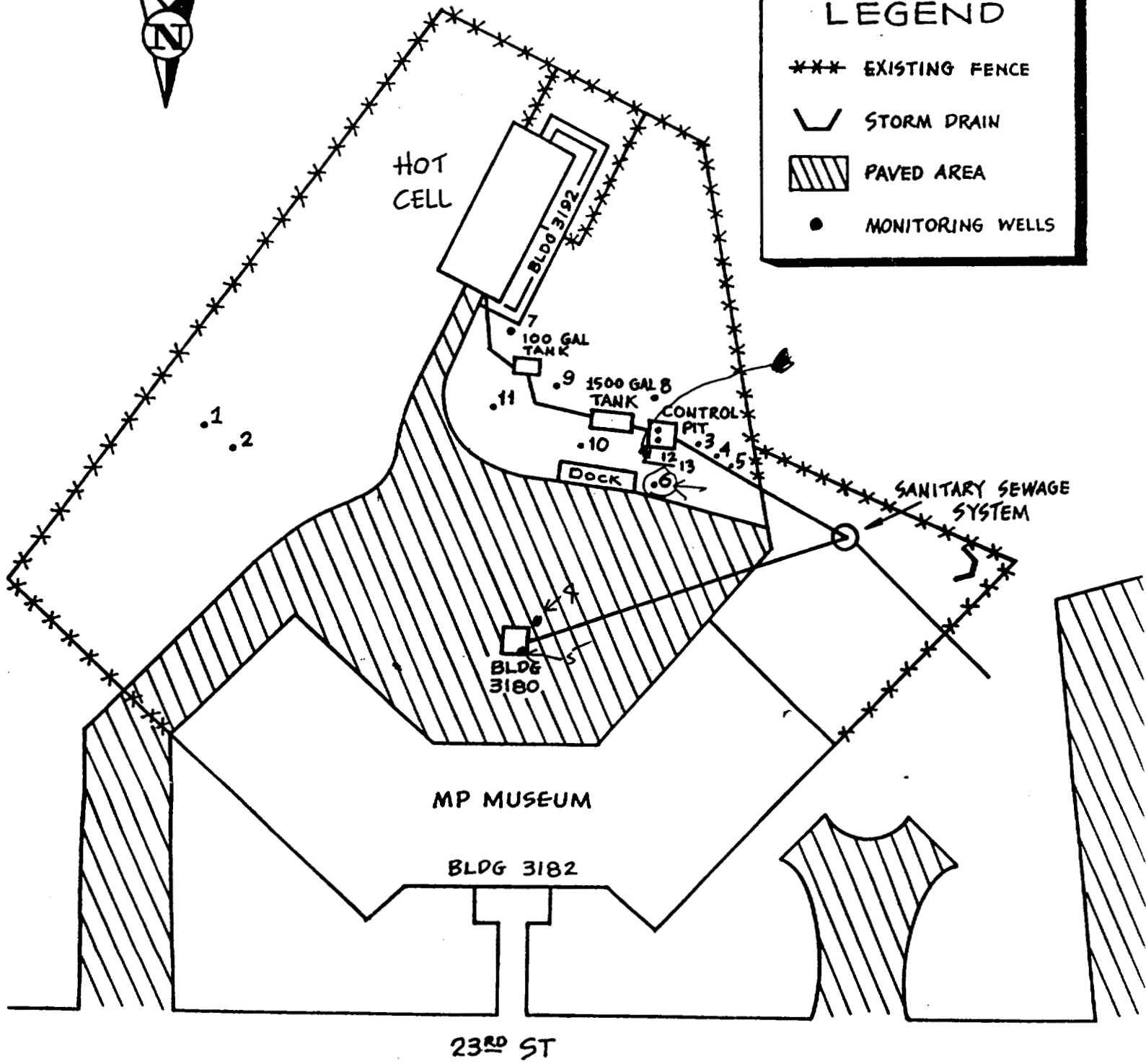
Samples collected from Fort McClellan and Pelham Range for radiological analysis.

<u>Sample #</u>	<u>Location</u>	<u>Requested Analysis</u>
1	Concrete cinder block from Building 3192 Classroom, west wall, 1 st block from corner top row.	Full gamma spectrum
2	Concrete cinder block from Building 3192 classroom North wall, 1 st block from corner, 6 th row from floor	Full gamma spectrum
3	Soil from Building 3192, inside foyer, edge of concrete, 24" deep.	Full gamma spectrum and Sr-90
4	Soil, southwest corner of Building 3180, outside, 36" deep.	Sr-90
5	Soil, inside northwest corner of Building 3180 36" deep.	Sr-90
6	Soil from south bank of ditch along concrete apron, Between control pit and apron. 40" deep @ 45° angle.	Sr-90
7	Soil from north bank of Cane Creek, Pelham Range, Coordinates FN91883144, on 1:25000 map of Pelham Range, Calhoun County, AL.	Full gamma spectrum

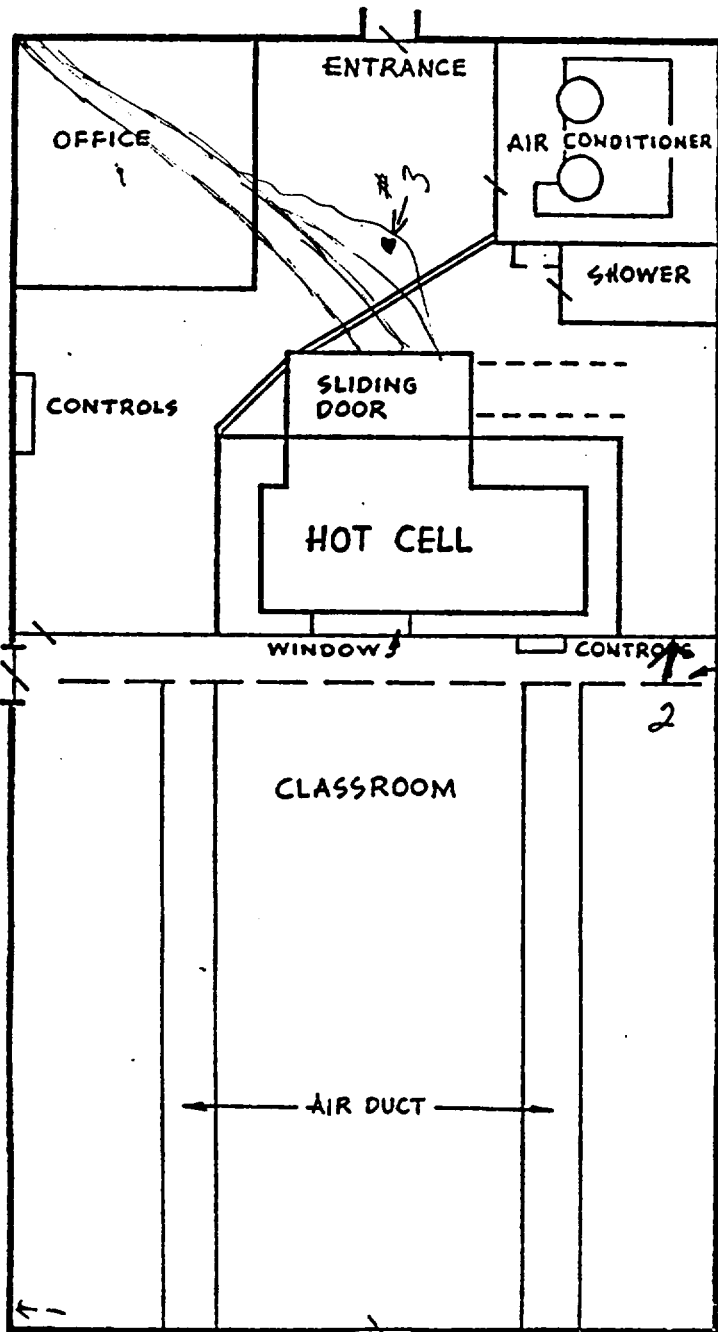


LEGEND

- *** EXISTING FENCE
- ∩ STORM DRAIN
- ▨ PAVED AREA
- MONITORING WELLS



HOT CELL BLDG 3192



West Wall 1st black top Row

TEMPORARY WALL
North Wall
6th row from floor
corner