

RADIOLOGIC AND ENGINEERING ASSESSMENT

FOR

DOE ID NO.: GJ-02961-RS  
ADDRESS: 1445 WALNUT AVENUE

AUGUST 1985

FOR

URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT OFFICE

ALBUQUERQUE OPERATIONS OFFICE

DEPARTMENT OF ENERGY

BY

BENDIX FIELD ENGINEERING CORPORATION  
P.O. Box 1569  
Grand Junction, Colorado 81502

APPROVED BY

*Michael K. Tucker*  
M. TUCKER  
DOE PROJECT ENGINEER

DATE

*August 27, 1985*

REA02961:REA-620

8509100491 850827  
PDR WASTE  
WM-54 PDR

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## **1.0 EXECUTIVE SUMMARY**

### **1.1 Introduction**

The location, DOE ID No. GJ-02961-RS, is a single-family residence located at 1445 Walnut Avenue, Grand Junction, Colorado.

The purpose of this assessment is to evaluate the extent of uranium millsite contamination at this property. This assessment includes recommended remedial action, estimated volume of material to be removed, and estimated cost of the proposed action.

### **1.2 Evaluation and Recommendation**

The action recommended is the removal of contaminated material and restoration of the property to its original condition. The identified residual radioactive material found on this property is tailings; the estimated volume is: exterior, 10 cu. yd.; interior, 0 cu. yd.

Estimated cost to perform remedial action, including dislocation when applicable, is \$1,704. Remedial action on this property will take approximately 10 days to complete.

## 2.0 PROPERTY DESCRIPTION

### 2.1 General Description

Address: 1445 Walnut Avenue, Grand Junction, Colorado

Zoning: Residential (RSF-8)

Lot Size: Approximately 6,200 sf (0.14 acres)

Legal Description: Lot 3, A.C. Nelms Subdivision, Section 12, T1S, R1W, U.M., City of Grand Junction, County of Mesa, State of Colorado.

Point of Reference: This property is located approximately 3 mile(s) north of the State of Colorado Tailings Repository. Appendix Figure 2.1 shows the property location relative to its surroundings.

Utilities: Utility locations are shown in Appendix Figure 2.2.

Electrical:	Overhead
Gas:	Underground
Telephone:	Overhead
Sewer:	Underground
Water:	Underground
Cable TV:	Overhead

Bordering Properties:

North:	Walnut Avenue
South:	Alley
East:	Two single-family residences
West:	Single-family residence

### 2.2 Existing Facilities and Structures

Primary Structure:

Type:	Single-story residence with attached carport
Size:	Approximately 690 sf
Construction Date:	1955
Construction:	Wood-frame
Foundation:	Monolithic concrete slab-on-grade
Footing Depth:	Approximately 8" to bottom of footing from grade
Basement:	None
Crawl Space:	None
Condition:	Good

Other Structures:

Type:	Carport
Size:	Approximately 276 sf
Construction:	Wood-frame
Foundation:	Concrete slab-on-grade
Condition:	Good

Type:	Shed 1 and Shed 2
Size:	Approximately 96 and 26 sf, respectively
Construction:	Wood-frame and prefabricated metal, respectively
Foundation:	Concrete slab-on-grade and none, respectively
Condition:	Good

General Remarks:

Structures, utilities, landscaping, and other special features of this property are included in Appendix Figure 2.2.

Historical Data:

This structure is not over 50 years old. Therefore, it does not meet the eligibility criteria for consideration of inclusion on the National Register of Historic Places.

### 3.0 RADIOLOGIC SURVEY

#### 3.1 Introduction

Radiologic data were collected by Bendix at DOE ID No. GJ-02961-RS on July 22, 1985. Data collection methods were performed in accordance with procedures fully described in the Radiologic Support Operations Procedures Manual GJ-07(84) (Bendix Field Engineering Corporation, 1984). These data were evaluated to determine the areal and vertical extent of uranium mill tailings contamination at this property as well as any other contaminated material that may have originated from the millsite.

A review of historical information from the files of the Colorado Department of Health (CDH) and the inclusion data from Oak Ridge National Laboratory (ORNL) was conducted to determine areas of potential contamination identified during previous radiologic assessments of this property.

The Bendix radiologic survey was designed to investigate the entire property, with emphasis on previously identified areas of contamination. Conclusions based upon data analyses are discussed in Section 3.5, Extent of Contamination. Photocopies of the Official Survey Report, team leader notes, deconvolution graphs, and Exterior Gamma Scan map are included in the Appendix (Section 6.0).

#### 3.2 Gamma Exposure-Rate Surveys

##### 3.2.1 Exterior Findings

Background Readings: 15 to 17 uR/h  
Highest Outside Gamma Reading (HOG): 37 uR/h

Exterior radium-concentration measurements are presented in Appendix Table 3.1. Exterior exposure-rate survey results are shown in Appendix Figure 3.1.

##### 3.2.2 Interior Findings

Background Readings: 13 to 16 uR/h  
Highest Inside Gamma Reading (HIG): 16 uR/h

Interior gamma exposure-rate measurements are summarized in Appendix Table 3.2.

#### 3.3 Boreholes, Soil Samples, and Other Measurements

Areas which displayed elevated gamma levels were further investigated; the locations and types of these investigations are shown in Appendix Figure 3.2. Data from these investigations is included in Appendix Table 3.1.

### 3.4 Radon/Radon Daughter Concentration (RDC)

The working level was not assessed by CDH. No RDC measurements were taken by Bendix.

### 3.5 Extent of Contamination

Appendix Figure 3.3 shows identified areas and estimated depths of contamination on this property, based on assessments of all measurements taken. As noted in this figure, areas recommended for remedial action that contain identified residual radioactive materials are:

(Area A) Surface Material: Concrete  
Direction From Primary Structure: South  
Total Depth of Contamination: 12 inches  
Other (height or thickness): 4-inch-thick concrete  
Approximate Square Footage: 230

(Area B) Surface Material: Soil  
Direction From Primary Structure: South  
Other Directions: West of Shed 1  
Total Depth of Contamination: 12 inches  
Comments: This is a flower bed  
Approximate Square Footage: 40

#### 4.0 RECOMMENDED REMEDIAL ACTION

##### 4.1 Decontamination and Restoration

The recommended remedial action for this property, DOE ID No. GJ-02961-RS, includes removal of all areas identified as containing radioactive material (as discussed in Section 3.5 and shown in Appendix Figure 3.3) and transport of removed material to the disposal site.

After remedial action is completed, the areas involved will be restored to original condition in accordance with the Bendix drawings, Vicinity Properties General Construction Specification (Bendix Field Engineering Corporation, 1984), and Statement of Work for Construction Subcontractor.

Dislocation of the occupants will not be required for this remedial action.

##### 4.2 Evaluation of Recommended Remedial Action

Volume calculations of the areas included for remedial action are presented in Appendix Table 4.1. Cost estimates are presented in Appendix Table 4.2.

Estimated cost of remedial action is \$1,704.

This remedial action will result in removal of the identified residual radioactive materials.

There is no owner preference with respect to remedial action and no legal or other complications are foreseen at this time.



## 5.0 REFERENCES

ARIX, A Professional Corporation, Procedures Manual for the Grand Junction Remedial Action Program, for Colorado Department of Health, Radiation Control Division, and the U.S. Department of Energy, 1983.

Bendix Field Engineering Corporation, Procedures Manual Radiologic Support Operations Grand Junction Vicinity Properties, (GJ-07), for U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

Bendix Field Engineering Corporation, Engineering, Construction, and Land Support Manual Grand Junction Vicinity Properties Project, (GJ-08), for U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

Bendix Field Engineering Corporation, Grand Junction Vicinity Properties Operating Manual, (GJ-16) for U.S. Department of Energy, Nuclear Energy Programs, Division of Remedial Action Projects, UMTRA, 1984.

Bendix Field Engineering Corporation, Vicinity Properties General Construction Specification, for U.S. Department of Energy, Nuclear Energy Programs, Division of Remedial Action Projects, UMTRA, 1984.

Bendix Field Engineering Corporation, Environmental Assessment of Preliminary Cleanup Activities at Offsite Properties Contaminated by Tailings from the Grand Junction Inactive Uranium Millsite, (GJ-04), for U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations, Albuquerque, New Mexico, 1983.

U.S. Department of Energy, Programmatic Memorandum of Agreement (DOE No. DE-GM04-84AL28460) between the U.S. Department of Energy, the Advisory Council on Historic Preservation, and the Colorado State Historic Preservation Officer, for UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

U.S. Department of Energy, Vicinity Properties Management and Implementation Manual, for UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico, 1984.

U.S. Environmental Protection Agency, Standards for Remedial Action at Inactive Uranium Processing Sites (40 CFR Part 192), Washington, D.C., 1983.

## 6.0 APPENDIX

This Appendix contains the following:

Appendix Tables:

Table 3.1	Radium Concentrations at Exterior Locations
Table 3.2	Summary of Interior Gamma Exposure Rates
Table 4.1	Area and Volume Calculations
Table 4.2	Estimated Cost of Decontamination and Restoration

Appendix Figures:

Figure 2.1	Vicinity Map
Figure 2.2	Site Plan
Figure 3.1	Exterior Grid-Point Gamma Survey
Figure 3.2	Exterior Sample Locations
Figure 3.3	Exterior Estimated Extent of Contamination

Official Survey Report

Team Leader Notes

Deconvolution Graphs (Apparent Radium-226 Concentration)

Exterior Gamma Scan Map

## Radium Concentrations at Exterior Locations

DOE ID #GJ-02961-RS

1445 Walnut Avenue

Page 1 of 4

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. C <sub>t</sub>	Spectr.		
1	157244	03	TC	3.0		*	Water line DC = 0 inches
		06	TC	3.3		*	
		09	TC	3.4		*	
		12	TC	3.7		*	
		15	TC	3.6		*	
		18	TC	3.7		*	
		21	TC	3.8		*	
		24	TC	3.9		*	
		27	TC	3.8		*	
		30	TC	3.9		*	
		33	TC	4.0		*	
		36	TC	3.9		*	
		39	TC	3.7		*	
		42	TC	3.6		*	
		45	TC	3.5		*	
		48	TC	3.6		*	
		51	TC	3.6		*	
		54	TC	3.5		*	
		57	TC	3.5		*	
		60	TC	3.5		*	
2	185232	00	DS	<1.0		*	North of primary structure DC = 0 inches
		03	TC	2.9		*	
		06	TC	3.2		*	
		09	TC	3.5		*	
		12	TC	3.5		*	
		15	TC	3.5		*	
		18	TC	3.6		*	
		21	TC	3.5		*	
		24	TC	3.5		*	
		27	TC	3.5		*	
		30	TC	3.4		*	
		33	TC	3.5		*	
3	212237	00	DS	1.1		*	South side of primary structure DC = 0 inches
		03	TC	3.1		*	
		06	TC	3.4		*	
		09	TC	3.5		*	
		12	TC	3.7		*	
		15	TC	3.8		*	
		18	TC	3.9		*	
		21	TC	4.0		*	
		24	TC	4.0		*	
		27	TC	3.9		*	

## Radium Concentrations at Exterior Locations

DOE ID #GJ-02961-RS

1445 Walnut Avenue

Page 2 of 4

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
3	212237	30	TC	3.8		*	
		33	TC	3.8		*	
		36	TC	3.7		*	
		39	TC	3.7		*	
4	212254	00	DS	20.3		*	On patio
		03	TC	20.4		*	South of primary
		06	TC	25.3		*	structure
		09	TC	16.8		*	DC = 12 inches
		12	TC	10.9		*	based on the
		15	TC	7.9		*	deconvolution graph
		18	TC	6.1		*	
		21	TC	5.5		*	
		24	TC	5.1		*	
		27	TC	4.8		*	
		30	TC	4.6		*	
		33	TC	4.6		*	
		36	TC	4.4		*	
		39	TC	4.2		*	
		42	TC	4.0		*	
		45	TC	3.8		*	
		48	TC	3.7		*	
5	214274	00	DS	2.0		*	
		06	DS	<1.0		*	
6	221245	00	DS	1.4		*	
		06	DS	1.2		*	
		06	DS	3.3		*	Horizontal
7	221258	00	DS	9.2		*	South of primary
		06	DS	4.0		*	structure on patio
		08	DS	15.5		*	DC = 12 inches
		03	TC	6.6		*	based on all
		06	TC	6.2		*	available data
		09	TC	5.6		*	
		12	TC	4.9		*	
		15	TC	4.5		*	
		18	TC	4.3		*	
		21	TC	4.2		*	
		24	TC	4.3		*	
		27	TC	4.2		*	
		30	TC	4.3		*	
		33	TC	4.4		*	

## Radium Concentrations at Exterior Locations

DOE ID #GJ-02961-RS

1445 Walnut Avenue

Page 3 of 4

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
7	221258	36	TC	4.3		*	
		39	TC	4.3		*	
		42	TC	4.1		*	
		45	TC	4.0		*	
8	222248	03	TC	3.0		*	Sewer line DC = 0 inches
		06	TC	3.3		*	
		09	TC	3.4		*	
		12	TC	3.5		*	
		15	TC	3.6		*	
		18	TC	3.6		*	
		21	TC	3.6		*	
		24	TC	3.7		*	
		27	TC	3.9		*	
		30	TC	3.9		*	
		33	TC	3.9		*	
		36	TC	4.0		*	
9	233274	00	DS	1.1		*	Southeast of primary structure
		06	DS	<1.0		*	
10	243274	00	DS	1.8		*	Southeast of primary structure
		06	DS	1.2		*	
11	257274	00	DS	1.6		*	Southeast of primary structure
		06	DS	1.1		*	
12	265245	00	DS	1.4		*	Background DC = 0 inches
		03	TC	3.1		*	
		06	TC	3.5		*	
		09	TC	3.7		*	
		12	TC	3.7		*	
		15	TC	3.7		*	
		18	TC	3.7		*	
		21	TC	3.7		*	
		24	TC	3.7		*	
		27	TC	3.8		*	
		33	TC	3.8		*	
		36	TC	3.7		*	
		39	TC	3.7		*	
		30	TC	3.8		*	

## Radium Concentrations at Exterior Locations

DOE ID #GJ-02961-RS

1445 Walnut Avenue

Page 4 of 4

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
12	265245	33	TC	3.8		*	
		36	TC	3.7		*	
		39	TC	3.7		*	

Measurement Types: GB = GAD-6 Borehole  
GS = GAD-6 Surface  
DS = Delta Scintillometer  
TC = Total Count Borehole  
SS = Soil Sample  
BH = Combined GAD-6 and  
Total Count Borehole

Notes: DC = Depth of Contamination  
\* = No Soil Sample Taken  
[n] = Reading Taken n-Inches  
Above Floor or Ground  
Date of Survey = 07-22-85  
Team Leader = TF

Table 3.2

## Summary of Interior Gamma Exposure Rates

DOE ID No. GJ-02961-RS

1445 Walnut Avenue

Page 1 of 1

Location	Number of Readings Taken at Waist Level	Range at Waist Level (uR/h)	Mean at Waist Level (uR/h)	Number of Readings Taken at Surface	Range at Surface (uR/h)	Mean Surface (uR/h)
Ground Floor	*	*	*	*	13-16	*
Shed 1	*	*	*	*	14-16	*
Shed 2	*	*	*	*	14-15	*

\* A walking gamma scan was performed to confirm the absence of interior contamination.

Page 1 of 1

See Appendix Figure 3.3 For Areas



EXTERIOR

Remove/replace concrete patio 230 sf @ \$3/sf	\$ 690
--	--------

Temporary support of patio roof Lump sum	50
---	----

Remove identified residual radioactive material 3 cy @ \$44/cy (manual-open)	132
4 cy @ \$14.50/cy (machine-open)	58

Replace area with roadbase 6 cy @ \$11.50/cy	69
---	----

Replace area with topsoil 1 cy @ \$9.50/cy	10
---	----

Replace flowers Lump sum	50
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TOTAL EXTERIOR	\$ 1,059
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TOTAL INTERIOR	0
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ACCESS CONTROL	100
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SUBTOTAL	\$ 1,159
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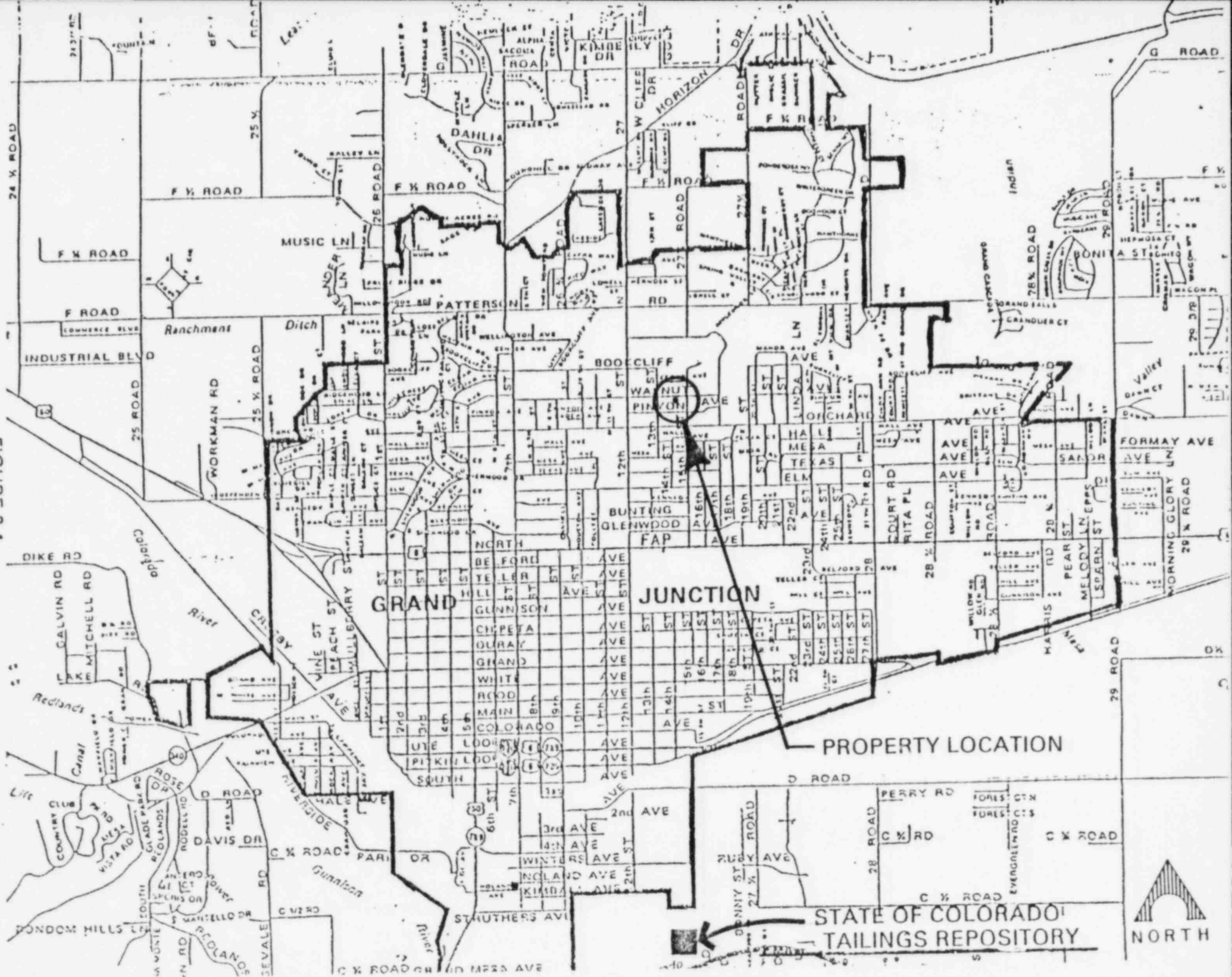
CONTINGENCY @ 5%	58
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SUBTOTAL	\$ 1,217
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CONTRACTOR OVERHEAD & PROFIT @ 40%	487
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GRAND TOTAL	\$ 1,704
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FIGURE 2.1  
VICINITY MAP



LOT 3 A.C. HELMS SUBDIVISION  
SECTION 12, T.15, R.1W, U.M.,  
CITY OF GRAND JUNCTION, COLORADO.

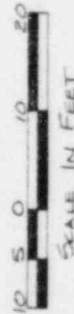
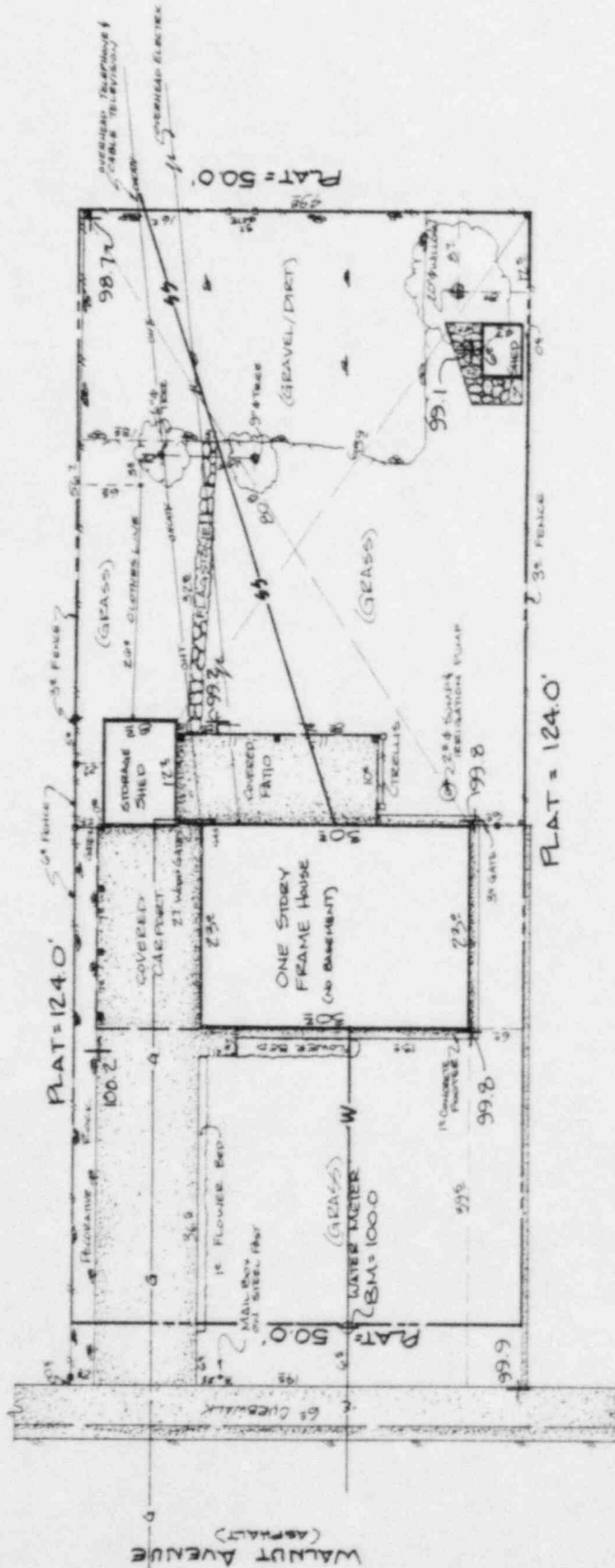
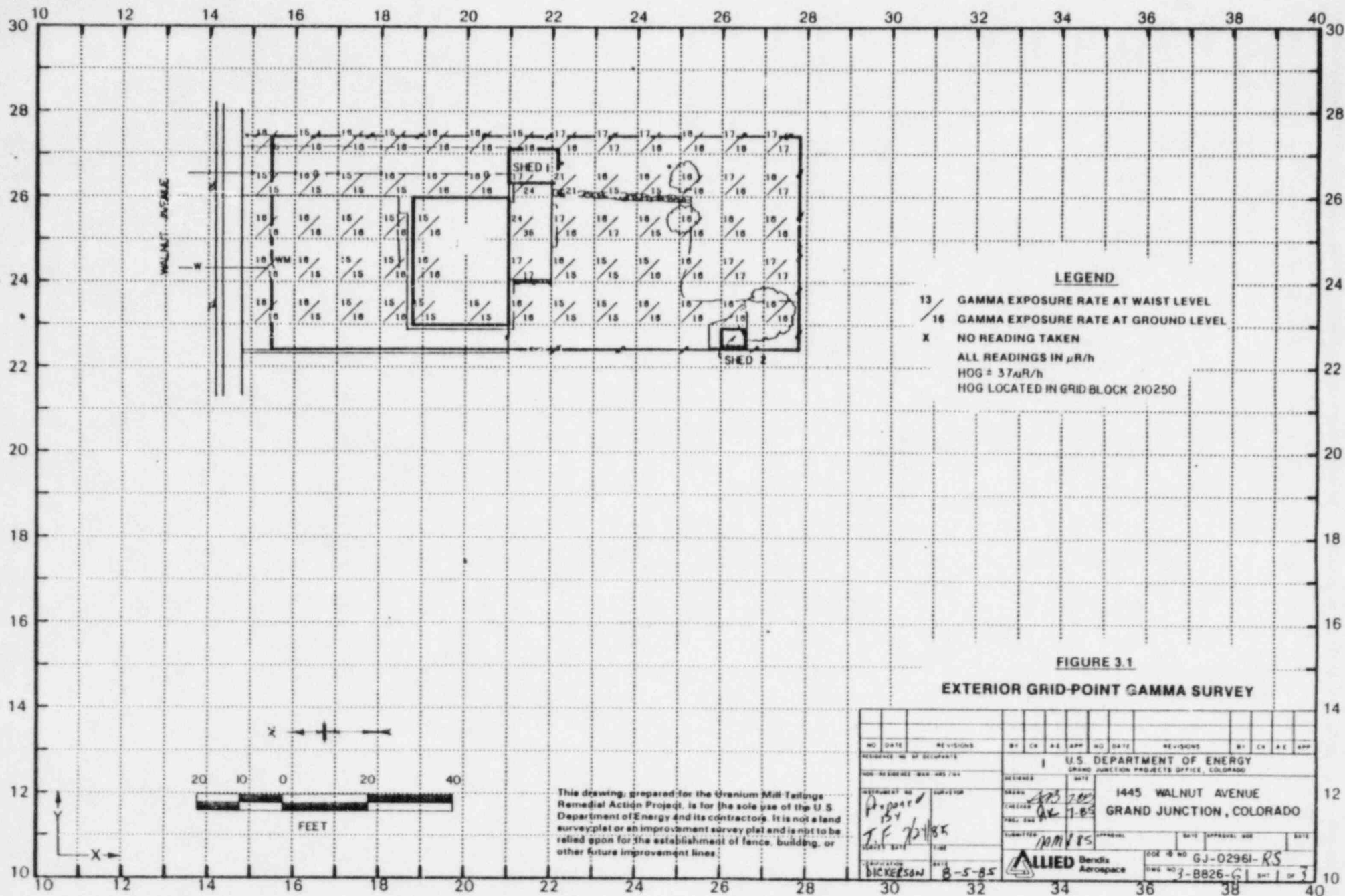


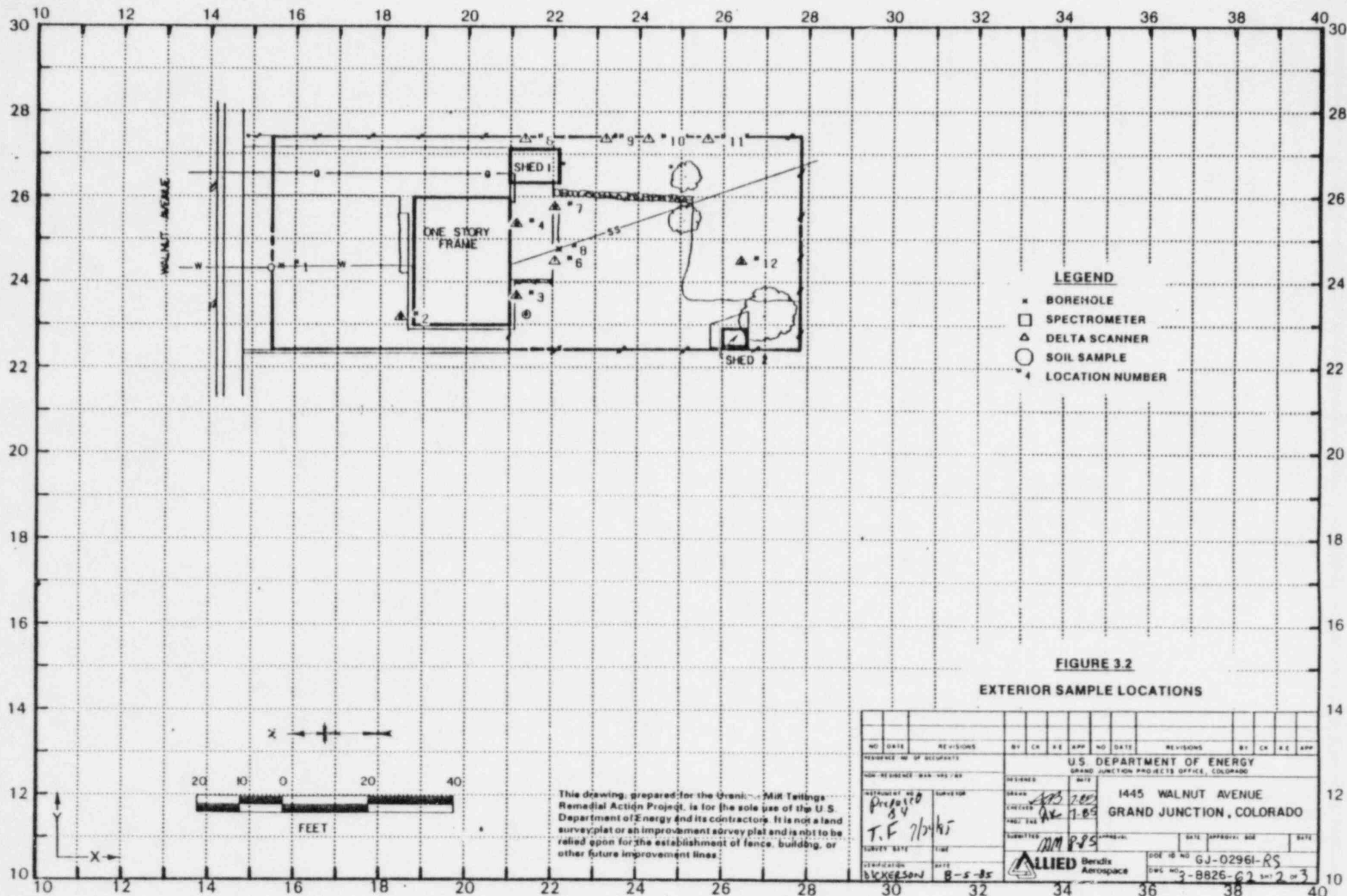
FIGURE 2.2 SITE PLAN

Tax Schedule No 2945-122-03-008

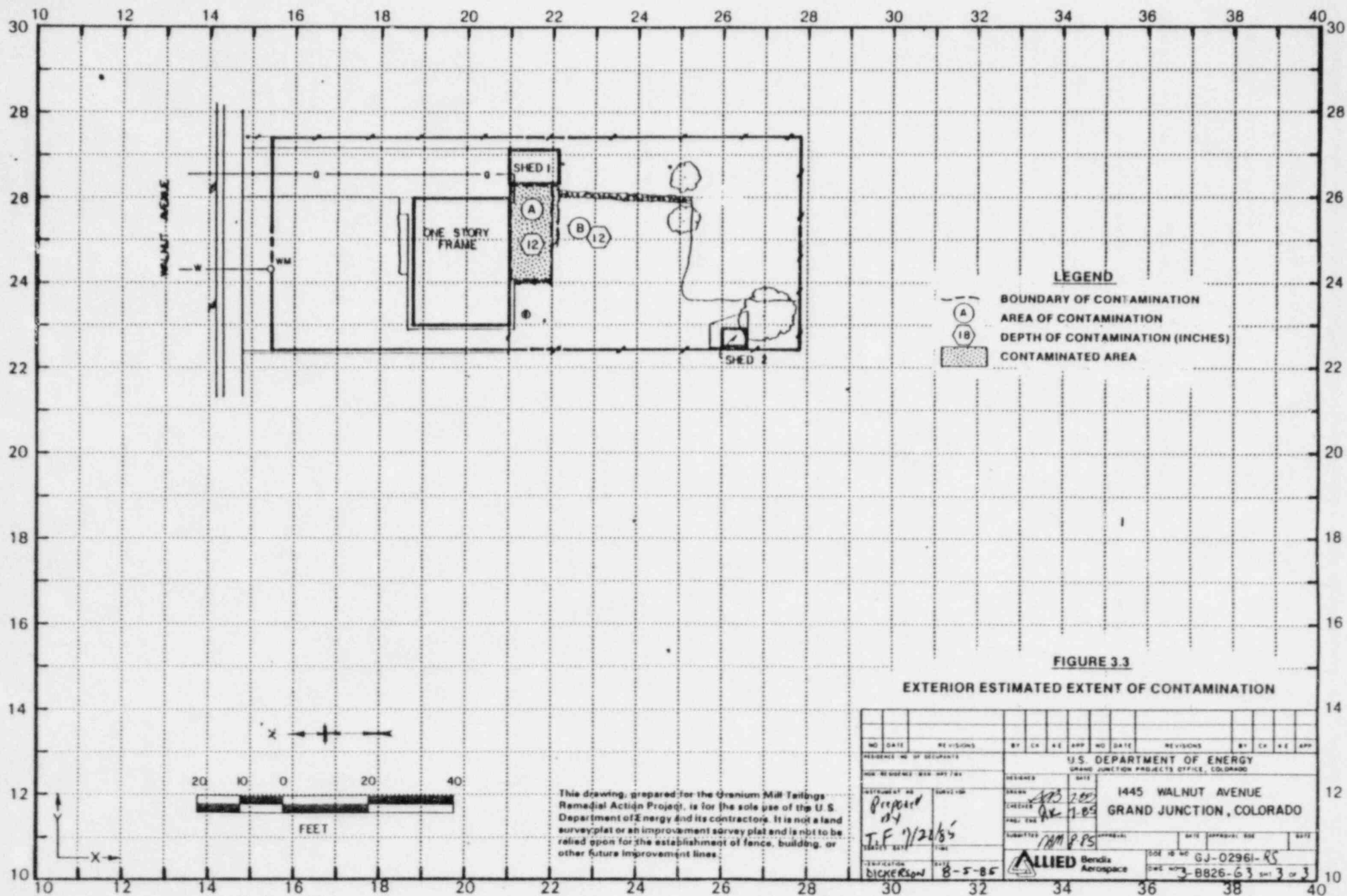
U.S. DEPARTMENT OF ENERGY	DATE TO NO	GJ0296125
GRAND JUNCTION PROJECT OFFICE COLORADO	ADDRESS	1445 WALNUT AVENUE
		GRAND JUNCTION, COLORADO
	SURV	71525
	DESK	711685
DRAWING NO	3.0826.F1	SHEET 1 OF 1

This drawing, prepared for the Uranium Mill Tailings Remedial Action Project, is for the sole use of the U.S. Department of Energy. It is not to be used for any other purpose without the written consent of the U.S. Department of Energy. The U.S. Department of Energy assumes no responsibility for the establishment of fence, building or other future improvement lines.









NO. DATE REVISIONS BY CK AE APP				NO. DATE REVISIONS BY CK AE APP			
RESIDENCE NO. OF OCCUPANTS				U.S. DEPARTMENT OF ENERGY			
HOM. RESIDENCE NO. 14474				GRAND JUNCTION PROJECTS OFFICE, COLORADO			
DESIGNED BY		DATE		DRAWN BY		DATE	
Prepared by		7/20/85		JES		7-85	
CHECKED BY				PAID TO			
T.F. 7/20/85				SUBMITTER		APPROVAL	
BICKERSON		8-5-85		ALLIED		Bendix Aerospace	
JOB NO. 8826-63 SHEET 3 OF 3				JOB NO. GJ-02961-RS			

3/85

DOE ID NO. GJ-02961-RS

Date 7/22/85

U.S. DEPARTMENT OF ENERGY  
URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT  
GRAND JUNCTION VICINITY PROPERTIES

Official Survey Report

Property Address 1445 Walnut

Property Owner E. Kisse

Address of Owner (if different from above) Same

Report Prepared By Thomas Flores

I. PRESENCE/ABSENCE OF RESIDUAL RADIOACTIVE MATERIALS

☐ No evidence of residual radioactive material on surveyed property.

☒ Residual radioactive materials found at the following locations:

☐ In open areas.

☒ Under or around exterior improvements.

☐ Under or around a typically nonoccupied structure.

☒ Under or around a typically occupied structure.

II. RESULTS OF RADIOLOGIC ASSESSMENT

☐ Levels of radiation from residual radioactive materials, if any, do not exceed EPA Standards and no action is required under the Uranium Mill Tailings Remedial Action Project.

☒ Levels of radiation from residual radioactive materials exceed EPA Standards such that Remedial Action is recommended and will be accomplished, with your consent, as soon as budget and schedule permit.

cc:

G. A. Franz, III, GJ/CDE

J. Themelis, Mgr. UMTRA Proj. Off.

HIG = 16 uR/h  
HOG = 37 uR/h

ALLIED Bendix  
Aerospace

Bendix Field Engineering Corporation  
Grand Junction Operations  
Grand Junction, Colorado

Date: July 22, 1985

To: Files

From: Thomas Flores

Subject: Team Leader Notes -- GJ-02961-RS

Address: 1445 Walnut Avenue

Owner: E. Kisse

Team Members

T. Flores (Team Leader)  
V. Rothman  
M. Duran

H. Mattison  
L. Kula  
H. Lucero

Instruments

See Equipment Summary sheet.

The survey crew arrived at the property at 8:00 AM.

The interior scan showed no elevated readings, the house is slab-on-grade.

All utility lines were located and investigated. The gas line was underneath a concrete slab, no deltas were taken. While augering next to the sewer line clean-out, the auger went through the old abandoned sewer line.



Team Leader Notes  
Thomas Flores  
GJ-02961-RS  
July 22, 1985  
Page 2

The exterior scan showed elevated readings along the east fence line; however, the deltas showed them to be clean.

A core was drilled through the patio and the total count showed contamination to 12 inches. A horizontal delta was taken underneath the patio.

The team members were frisked at 11:00 AM and returned to the compound.

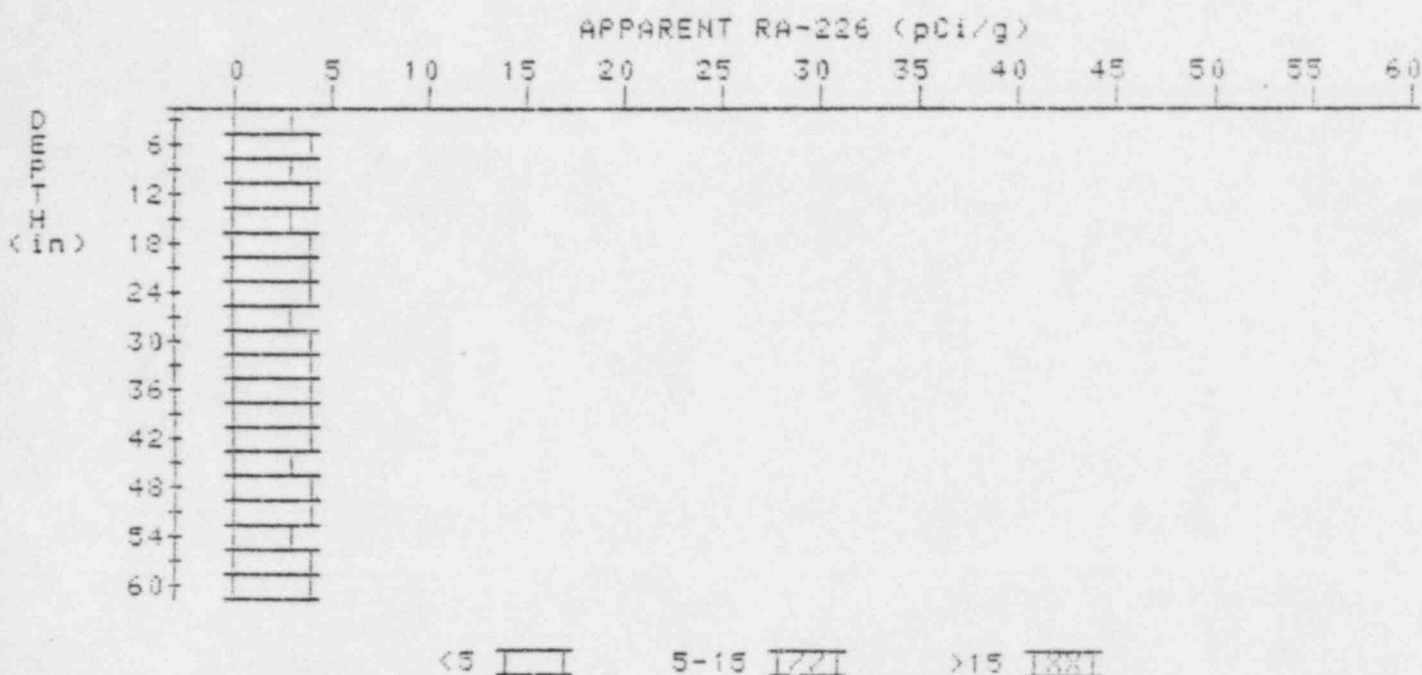
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

1

PROPERTY NUMBER: GJ-02961-R8

HOLE NUMBER: 1

LOCATION: 157244



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.0	3.0
6	3.3	3.7
9	3.4	3.0
12	3.7	4.4
15	3.6	3.2
18	3.7	3.7
21	3.8	3.8
24	3.9	4.3
27	3.8	3.4
30	3.9	3.9
33	4.0	4.4
36	3.9	4.1
39	3.7	3.5
42	3.6	3.6
45	3.5	3.1
48	3.6	3.8
51	3.5	3.8
54	3.5	3.2

57  
60

3.5  
3.5

3.5  
3.5

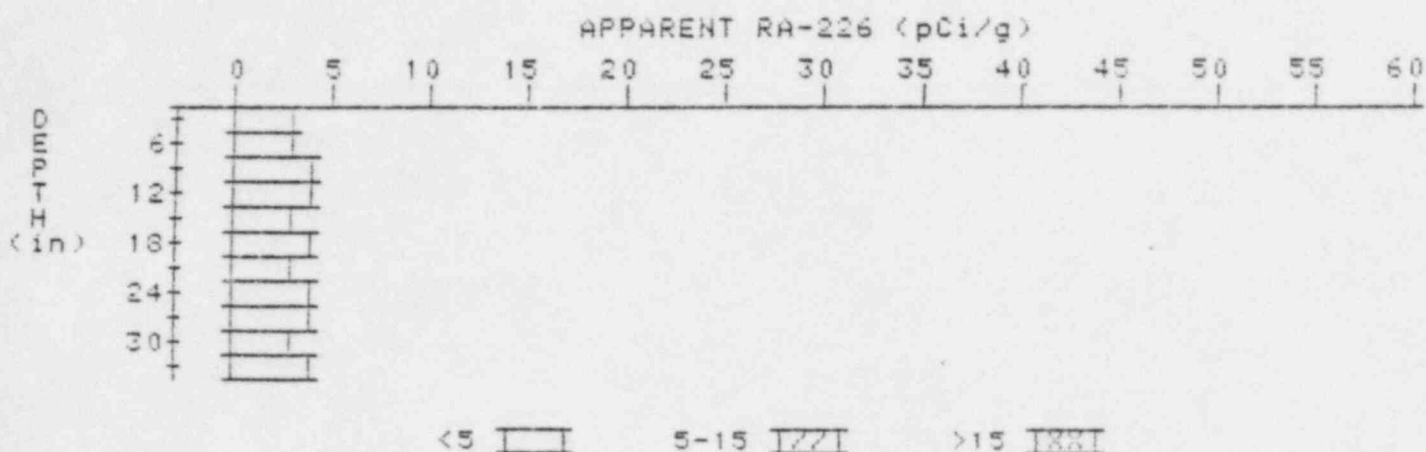
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

2

PROPERTY NUMBER: GJ-02961-RS

HOLE NUMBER: 2

LOCATION: 185232



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	2.9	2.9
6	3.2	3.2
9	3.5	4.0
12	3.5	3.5
15	3.5	3.3
18	3.6	4.0
21	3.5	3.3
24	3.5	3.5
27	3.5	3.7
30	3.4	3.0
33	3.5	3.5

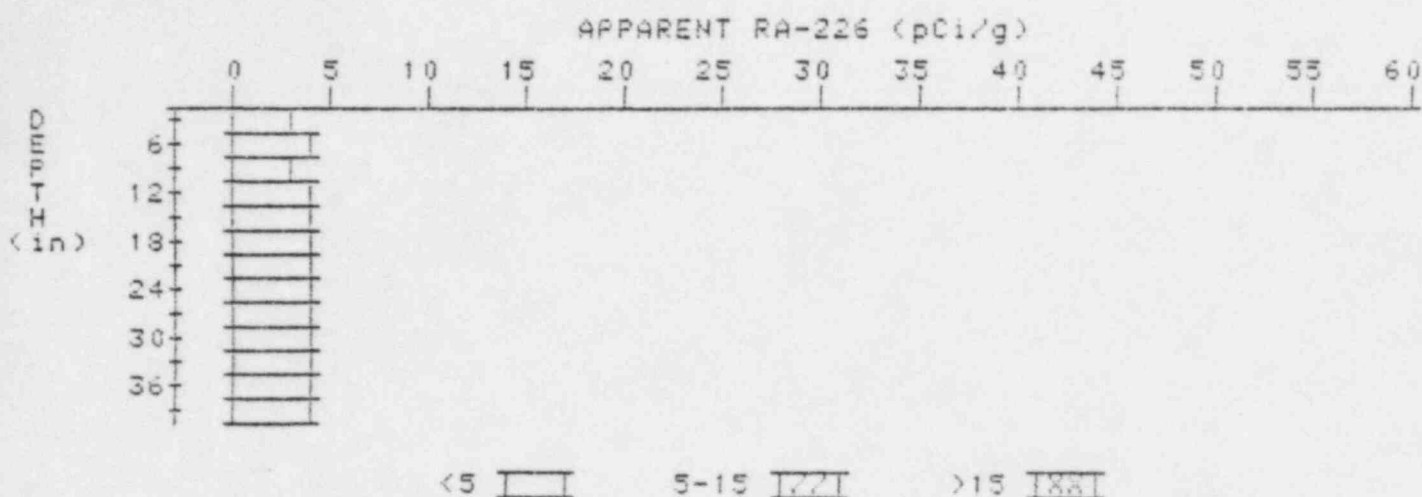
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

3

PROPERTY NUMBER: GJ-02961-RS

HOLE NUMBER: 3

LOCATION: 212237



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.1	3.1
6	3.4	3.8
9	3.5	3.3
12	3.7	3.9
15	3.8	3.8
18	3.9	3.9
21	4.0	4.2
24	4.0	4.2
27	3.9	3.9
30	3.8	3.6
33	3.8	4.0
36	3.7	3.8
39	3.7	3.7

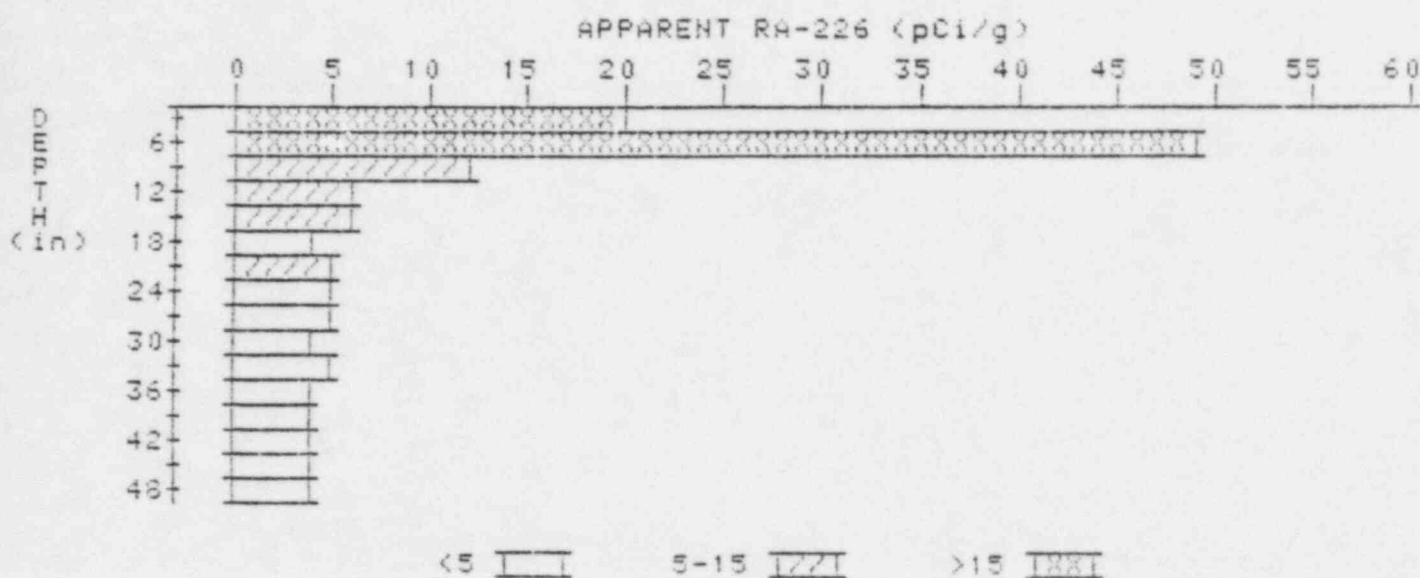
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

4

PROPERTY NUMBER: GJ-02961-R3

HOLE NUMBER: 4

LOCATION: 212254



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
=====		
3	20.4	20.4
6	25.3	49.1
9	16.8	12.2
12	10.9	5.7
15	7.9	5.8
18	6.1	4.0
21	5.5	5.1
24	5.1	4.9
27	4.8	4.6
30	4.6	4.2
33	4.6	5.0
36	4.4	4.4
39	4.2	4.2
42	4.0	4.0
45	3.6	3.6
48	3.7	3.7

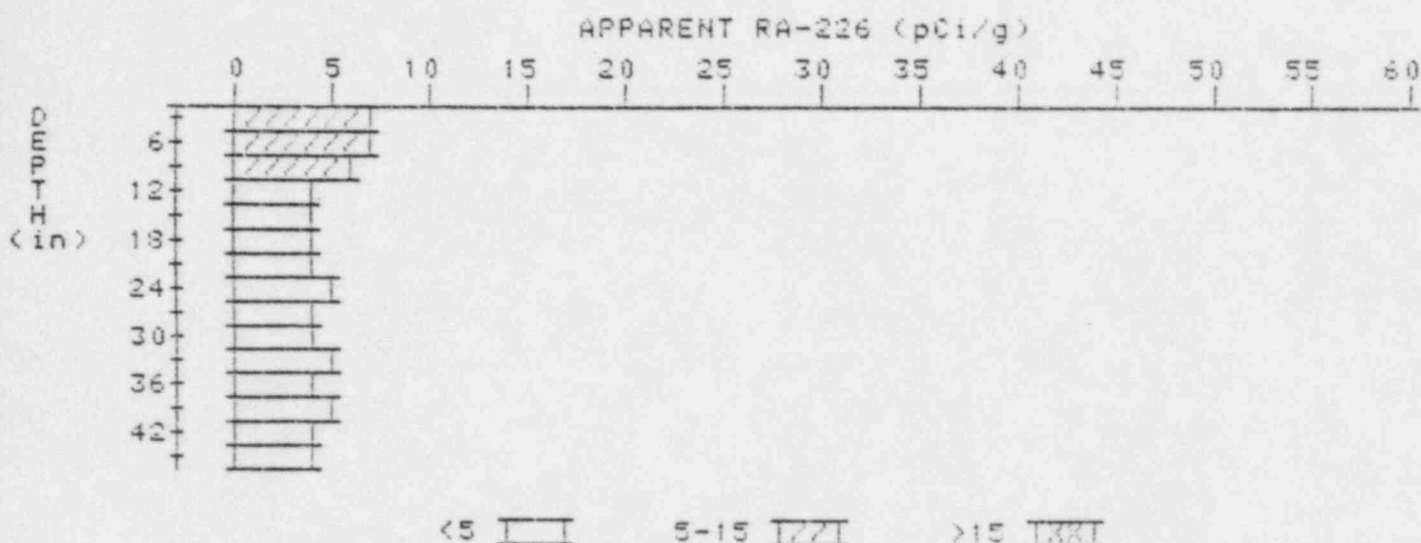
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

7

PROPERTY NUMBER: GJ-02961-RS

HOLE NUMBER: 7

LOCATION: 221258



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	6.6	6.6
6	6.2	6.6
9	5.6	5.8
12	4.9	4.4
15	4.5	4.1
18	4.3	4.1
21	4.2	3.8
24	4.3	4.7
27	4.2	3.8
30	4.3	4.3
33	4.4	4.8
36	4.3	4.1
39	4.3	4.7
42	4.1	3.9
45	4.0	4.0

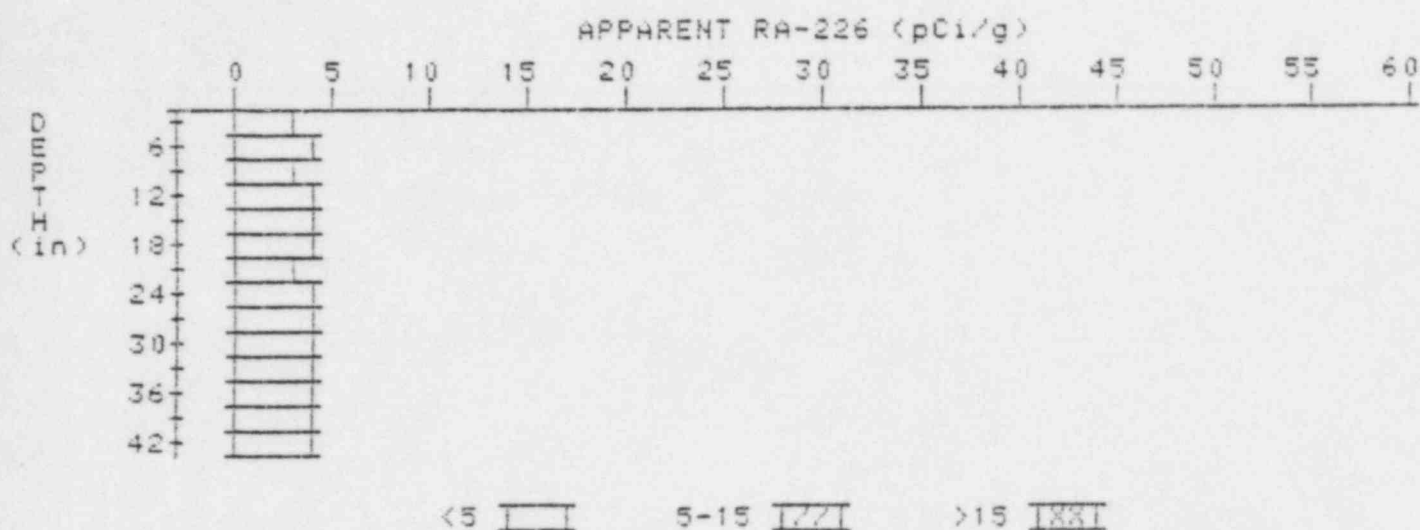
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

8

PROPERTY NUMBER: GJ-02961-RS

HOLE NUMBER: 8

LOCATION: 222248



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.0	3.0
6	3.3	3.7
9	3.4	3.4
12	3.5	3.5
15	3.6	3.8
18	3.6	3.6
21	3.6	3.4
24	3.7	3.5
27	3.9	4.3
30	3.9	3.9
33	3.9	3.7
36	4.0	4.2
39	4.0	4.0
42	4.0	4.0

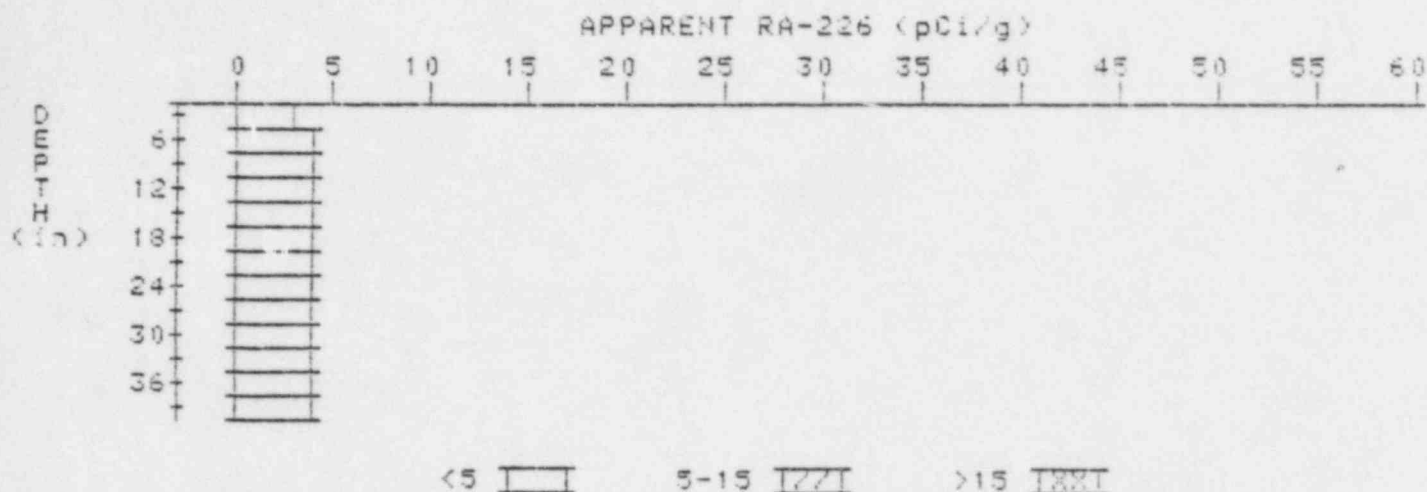


# APPARENT RADIUM-226 CONCENTRATION 12 DECONVOLUTION GRAPH

PROPERTY NUMBER: GJ-02961-RS

HOLE NUMBER: 12

LOCATION: 265245



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.1	3.1
6	3.5	3.9
9	3.7	4.1
12	3.7	3.7
15	3.7	3.7
18	3.7	3.7
21	3.7	3.7
24	3.7	3.5
27	3.8	4.0
30	3.8	3.8
33	3.8	4.0
36	3.7	3.5
39	3.7	3.7

