

RADIOLOGIC AND ENGINEERING ASSESSMENT

FOR

DOE ID NO.: GJ-02045-RM  
ADDRESS: 926 NORTH 5TH STREET

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 19, 1985*

REA02045:REA-618

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## 1.0 EXECUTIVE SUMMARY

### 1.1 Introduction

The location, DOE ID No. GJ-02045-RM, is a two-family residence located at 926 North 5th Street, 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, 26 cu. yd.; interior, 0 cu. yd.

Estimated cost to perform remedial action, including dislocation when applicable, is \$3,368. Remedial action on this property will take approximately 5 days to complete.

## 2.0 PROPERTY DESCRIPTION

### 2.1 General Description

Address: 926 North 5th Street, Grand Junction, Colorado

Zoning: Residential (RMF-32)

Lot Size: Approximately 9,000 sf (0.2 acres)

Legal Description: North 3/5 of Lots 1 to 5 inclusive, Block 16, City of Grand Junction, County of Mesa, State of Colorado.

Point of Reference: This property is located approximately 2 mile(s) northwest 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:	Belford Avenue
South:	Single-family residence
East:	Single-family residence
West:	North 5th Street

### 2.2 Existing Facilities and Structures

Primary Structure:

Type:	Single-story two-family residence
Size:	Approximately 1,150 sf
Construction Date:	1905
Construction:	Wood-frame
Foundation:	Concrete stemwall on spread footing
Footing Depth:	Approximately 6" to bottom of footing from grade
Basement:	None
Crawl Space:	Yes - under entire living area
Condition:	Fair to good

Other Structures:

Type:	Garage
Size:	Approximately 324 sf
Construction:	Wood-frame
Foundation:	Monolithic concrete slab-on-grade
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 over 50 years old. Therefore, it does meet the eligibility criteria for consideration of inclusion on the National Register of Historic Places.

Alterations to Structure: New concrete foundation

Architectural Significance: None known

Historical Significance: None known

### 3.0 RADIOLOGIC SURVEY

#### 3.1 Introduction

Radiologic data were collected by Bendix at DOE ID No. GJ-02045-RM 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: 14 to 17 uR/h  
Highest Outside Gamma Reading (HOG): 73 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: 14 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: North and west  
Other Directions: City sidewalk  
Total Depth of Contamination: 12 inches  
Other (height or thickness): 4-inch-thick concrete  
Comments: Depth of contamination beneath the west city sidewalk is estimated from data collected at locations on the north city sidewalk.  
Approximate Square Footage: 560
- (Area B) Surface Material: Sparse grass  
Direction From Primary Structure: Northeast  
Other Directions: Adjacent to the north city sidewalk  
Total Depth of Contamination: 6 inches  
Approximate Square Footage: 112
- (Area C) Surface Material: Soil  
Direction From Primary Structure: West  
Other Directions: Adjacent to the west city sidewalk  
Total Depth of Contamination: 9 inches  
Approximate Square Footage: 48
- (Area D) Surface Material: Soil  
Direction From Primary Structure: West  
Other Directions: Adjacent to the west city sidewalk  
Total Depth of Contamination: 6 inches  
Approximate Square Footage: 42
- (Area E) Surface Material: Soil  
Direction From Primary Structure: Southwest  
Other Directions: Southwest corner of yard  
Total Depth of Contamination: 12 inches  
Comments: Does not spillover to the adjacent property  
Approximate Square Footage: 15
- (Area F) Surface Material: Soil  
Direction From Primary Structure: Southwest  
Other Directions: Adjacent to the north city sidewalk  
Total Depth of Contamination: 6 inches  
Approximate Square Footage: 20

#### 4.0 RECOMMENDED REMEDIAL ACTION

##### 4.1 Decontamination and Restoration

The recommended remedial action for this property, DOE ID No. GJ-02045-RM, 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 \$3,368.

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 Exposure Rates
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-02045-RM

926 North 5th Street

Page 1 of 3

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
1	132205	00	DS	2.8		*	Adjacent to North 5th Street
		06	DS	1.4		*	
2	135215	00	DS	<1.0		*	
3	135257	00	DS	<1.0		*	Northwest sidewalk
4	136178	00	DS	1.2		*	
5	137208	00	DS	31.7		*	West of primary structure DC = 9 inches Based on the deconvolution graph
		03	TC	15.0		*	
		06	TC	16.0		*	
		09	TC	10.8		*	
		12	TC	8.0		*	
		15	TC	6.2		*	
		18	TC	5.4		*	
		21	TC	4.8		*	
		24	TC	4.4		*	
		27	TC	4.2		*	
		30	TC	4.1		*	
		33	TC	4.0		*	
		36	TC	3.9		*	
		39	TC	4.1		*	
6	138202	00	DS	1.3		*	
7	140178	00	DS	3.4		*	Adjacent to the west sidewalk
		06	DS	1.6		*	
8	144178	00	DS	<1.0		*	
9	144195	00	DS	1.1		*	
10	144202	00	DS	2.6		*	
11	144205	00	DS	3.5		*	West sidewalk
12	144212	00	DS	3.1		*	West sidewalk
13	144217	00	DS	2.0		*	
14	144222	00	DS	2.8		*	West sidewalk

## Radium Concentrations at Exterior Locations

DOE ID #GJ-02045-RM

926 North 5th Street

Page 2 of 3

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
15	144226	00	DS	1.4		*	
16	144235	00	DS	<1.0		*	West sidewalk
17	144246	00	DS	4.2		*	West sidewalk
18	145255	00	DS	<1.0		*	
19	150178	00	DS	3.5		*	East of west sidewalk
		06	DS	5.5		*	
		12	DS	2.5		*	
20	157178	00	DS	2.3		*	
21	165256	00	DS	<1.0		*	North sidewalk
22	180252	00	DS	1.6		*	South of north sidewalk
		06	DS	2.5		*	
23	180256	00	DS	8.1		*	North sidewalk
24	186194	00	DS	1.9		*	Gas line
		18	DS	1.1		*	On gas line
25	192194	00	DS	1.3		*	Water line
26	222198	00	DS	1.3		*	Sewer line
27	230256	00	DS	21.2		*	Sidewalk
		03	TC	29.5		*	Through core in
		06	TC	35.0		*	sidewalk
		09	TC	23.0		*	Northwest of
		12	TC	15.3		*	primary structure
		15	TC	10.8		*	DC = 12 inches
		18	TC	8.1		*	Based on the
		21	TC	6.6		*	deconvolution graph
		24	TC	6.0		*	
		27	TC	5.5		*	
		30	TC	5.1		*	
		33	TC	4.8		*	
		36	TC	4.4		*	
		39	TC	4.3		*	
		42	TC	4.1		*	
		45	TC	4.1		*	

## Radium Concentrations at Exterior Locations

DOE ID #GJ-02045-RM

926 North 5th Street

Page 3 of 3

Loc #	Grid Location	Depth (in.)	Meas. Type	In Situ Ra-226 (pCi/g)		Chem Ra-226 (pCi/g)	Comments
				Tot. Ct	Spectr.		
27	230256	48	TC	4.1		*	
		51	TC	4.2		*	
		54	TC	4.2		*	
		57	TC	3.9		*	
28	235259	00	DS	2.0		*	
		06	DS	1.7		*	
29	239265	00	DS	1.5		*	
30	248263	00	DS	13.7		*	North of north sidewalk
		06	DS	2.0		*	
31	250200	00	DS	2.2		*	Background DC = 0 inches
		03	TC	3.7		*	
		06	TC	3.8		*	
		09	TC	3.9		*	
		12	TC	4.0		*	
		15	TC	4.0		*	
		18	TC	4.0		*	
		21	TC	4.0		*	
		24	TC	4.0		*	
		27	TC	4.0		*	
		30	TC	3.8		*	
		33	TC	3.8		*	
		36	TC	3.8		*	
32	254255	00	DS	<1.0		*	
33	254264	00	DS	4.0		*	
		06	DS	1.1		*	
34	259265	00	DS	1.5		*	

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 = MJH

Table 3.2

## Summary of Interior Gamma Exposure Rates

DOE ID No. GJ-02045-RM

926 North 5th Street

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)
Basement	*	*	*	*	14-16	*

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



Table 4.1  
Area and Volume Calculations  
DOE ID No. GJ-02045-RM

Page 1 of 1

<u>AREA</u>	<u>CALCULATIONS(ft)</u>	<u>SF</u>	<u>DEPTH(ft)</u>	<u>CF</u>	<u>CUBIC YARDS</u>
EXTERIOR					
Concrete					
A	5 x 26 =	130			
	5 x 10 =	50			
	5 x 76 =	380			
		560	x 0.3 =	168	
	Volume of Concrete			= 168	= 168/27 = 6
Contaminated Fill					
A	5 x 26 =	130			
	5 x 10 =	50			
	5 x 76 =	380			
		560	x 0.7 =	392	
B	8 x 14 =	112	x 0.5 =	56	
C	6 x 8 =	48	x 0.8 =	38	
D	10 x 9 =	90			
	Mirus Area C =	(48)			
		42	x 0.5 =	21	
E	3 x 5 =	15	x 1.0 =	15	
F	4 x 5 =	20	x 0.5 =	10	
	Volume of Fill			= 532	= 532/27 = 20
	TOTAL VOLUME - EXTERIOR				= 26

See Appendix Figure 3.3 For Areas

EXTERIOR

Remove/replace concrete sidewalks 560 sf @ \$3/sf	\$ 1,680
Remove identified residual radioactive material 20 cy @ \$14.50/cy	290
Replace areas with compacted roadbase 15 cy @ \$11.50/cy	173
Replace areas with topsoil 5 cy @ \$9.50/cy	48
	<hr/>
TOTAL EXTERIOR	\$ 2,191
TOTAL INTERIOR	0
ACCESS CONTROL	100
	<hr/>
SUBTOTAL	\$ 2,291
CONTINGENCY @ 5%	115
	<hr/>
SUBTOTAL	\$ 2,406
CONTRACTOR OVERHEAD & PROFIT @ 40%	962
	<hr/>
GRAND TOTAL	\$ 3,368

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RR081485  
REA02045/REA-618/LMR



FIGURE 2.1  
VICINITY MAP



N 5TH STREET

BELEFORD AVENUE

2.0' V GUTTER

GRASS

PLAT DIST=1250'

DIRT/WEEDS

SIDEWALK

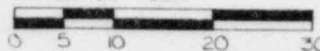
ONE STORY  
FRAME HOUSE

GARAGE

PLAT DIST=750'


N 3/5 OF LOTS 1705, INC BLK 16, GRAND JCT.  
MESA COUNTY, COLORADO

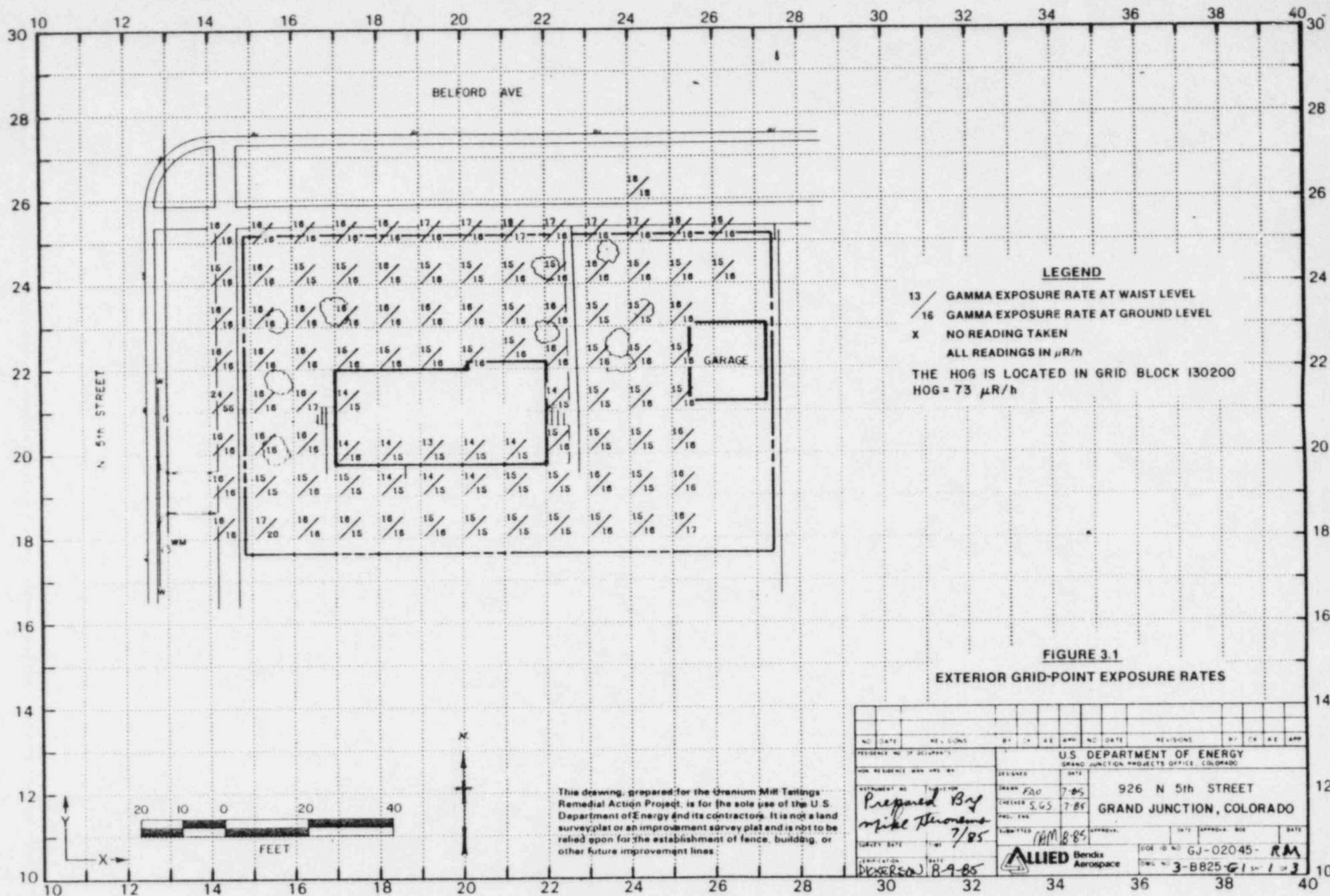
SCALE IN FEET



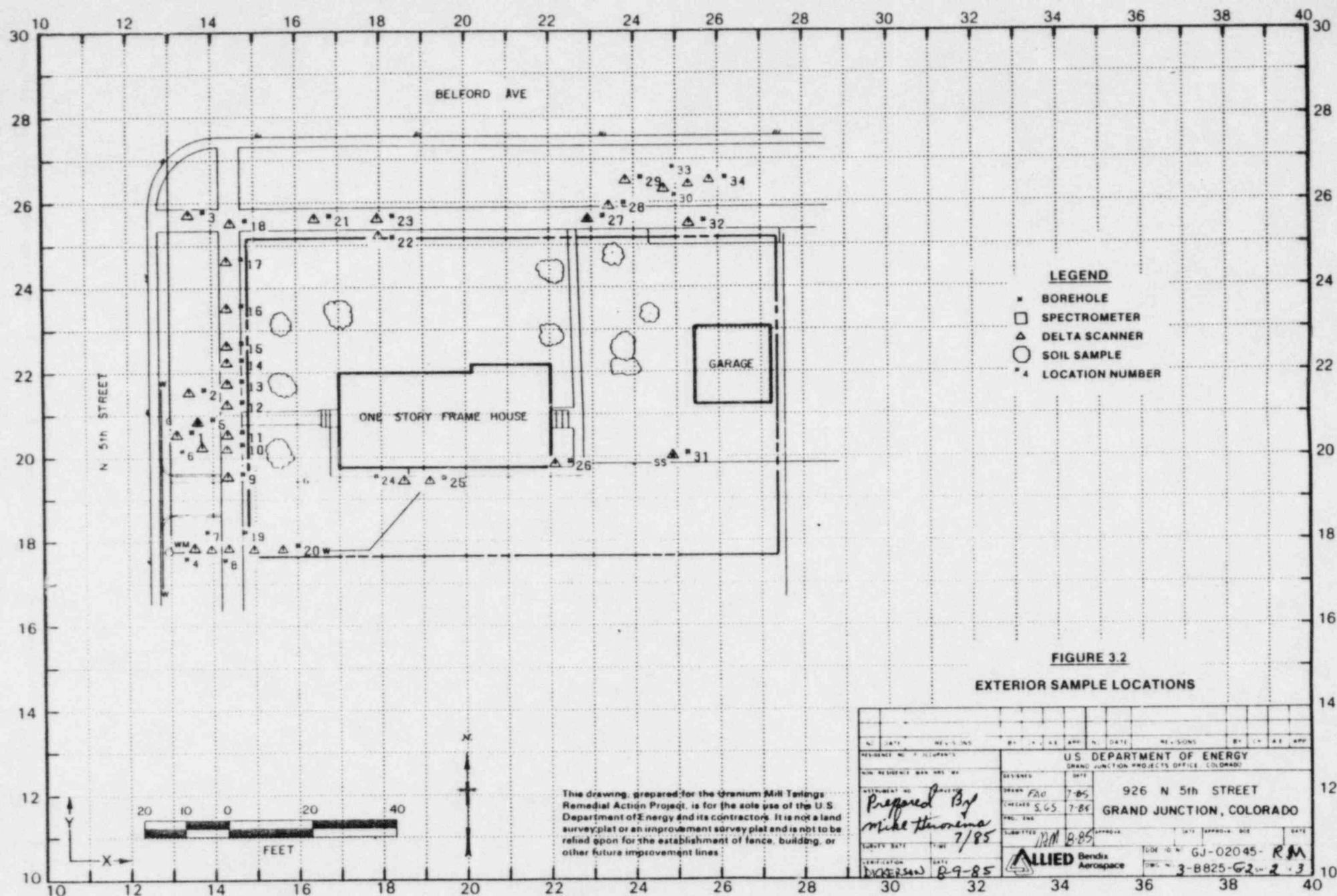
This drawing, prepared for the Uranium Mill Tailings Remedial Action Project, is for the sole use of the U.S. Department of Energy and its contractors. It is not a land survey plat or an improvement survey plat and is not to be relied upon for the establishment of fence, building, or other future improvement lines.

FIGURE 2.2 SITE PLAN

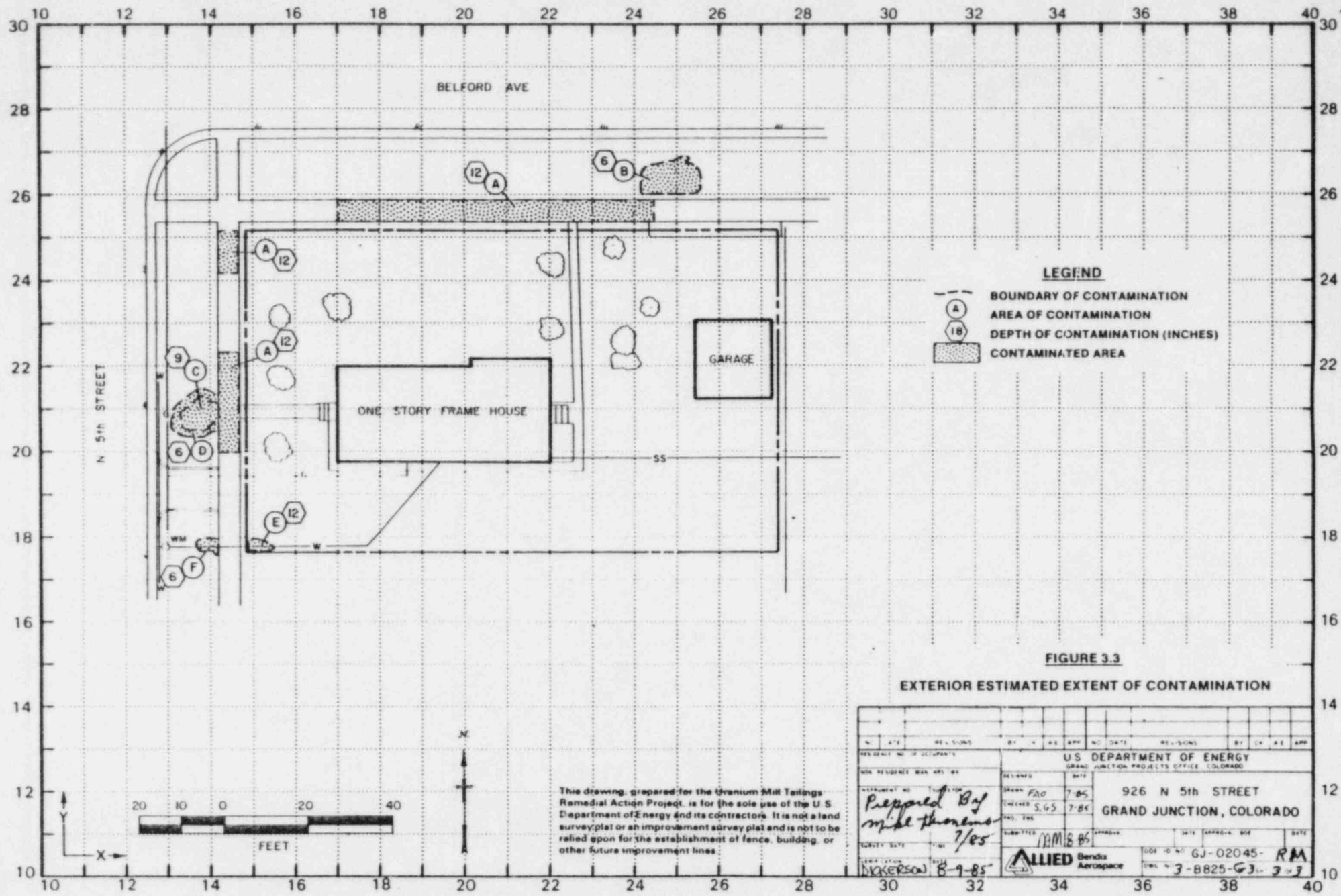
U.S. DEPARTMENT OF ENERGY		DOE ID NO.
GRAND JUNCTION PROJECT OFFICE, COLORADO		GJ-02045-RM
ADDRESS 926 N. 5TH STREET		 Allied Energy Services Reside: Field Engineering & Construction Grand Junction Operations
GRAND JUNCTION COLORADO		
SURV. RLB/7-15-85	DRAFT PL - 5 35	CKV/7-14-85
DRAWING NO. 3-CRCS-F1	SHEET 1 OF 1	











**LEGEND**

- BOUNDARY OF CONTAMINATION
- AREA OF CONTAMINATION
- 12 DEPTH OF CONTAMINATION (INCHES)
- CONTAMINATED AREA

**FIGURE 3.3**

**EXTERIOR ESTIMATED EXTENT OF CONTAMINATION**

NO. DATE REV. SIGNED BY X K S APP NO. DATE REV. SIGNED BY X K S APP		U.S. DEPARTMENT OF ENERGY GRAND JUNCTION PROJECTS OFFICE COLORADO	
RESIDENT NO. OF OCCUPANTS NON-RESIDENTIAL MAN. HRS. BY		926 N 5th STREET GRAND JUNCTION, COLORADO	
DRAWING NO. LOCATION PREPARED BY Mike Thompson 7/85		DRAWN FAO 7-85 CHECKED S.G.S. 7-85 PROJ. ENG.	
SUBMITTER MAM 8-85		DATE APPROVAL DATE	
APPROVAL DATE		DATE	
PROJECT NO. 8-9-85		LOG # GJ-02045- RM	
ALLIED Bendix Aerospace		INC. 3-B825-GJ- 3-7	

3/85

DOE ID NO. GJ-02045-ZM Date 7-30-85

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

Official Survey Report

Property Address 926 North 5th Street  
Property Owner John Zellner  
Address of Owner (if different from above) 473 West Scenic Drive  
Report Prepared By Mike Heronema

I. PRESENCE/ABSENCE OF RESIDUAL RADIOACTIVE MATERIALS

1      No evidence of residual radioactive material on surveyed property.

1 X Residual radioactive materials found at the following locations:

1 X 1 In open areas.

1 X 1 Under or around exterior improvements.

1      1 Under or around a typically nonoccupied structure.

1      1 Under or around a typically occupied structure.

II. RESULTS OF RADIOLOGIC ASSESSMENT

1      1 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.

1 X 1 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/CDH  
J. Themelis, Mgr. UMTRA Proj. Off.

HIG = 16 uR/h  
EOG = 73 uR/h

ALLIED Bendix  
Aerospace

Bendix Field Engineering Corporation  
Grand Junction Operations  
Grand Junction, Colorado

Date: July 22, 1985  
To: Files  
From: Mike Heronema  
Subject: Team Leader Notes - GJ-02045-R11

Address: 926 North 5th Street

Owner: John Zellner

Tenants: L. Riviera and Tash

Occupancy: Four

Team Members

M. Heronema (Team Leader)	S. Southern
L. Kula	V. Young
R. Wilkins	N. Wallace

Instruments

See Equipment Summary sheet

All utilities were investigated with no apparent contamination. The boreholes for the water, sewer, and foundation were investigated with the downhole scintillometer.

No access to the garage was possible because the keys were lost, per L. Riviera (tenant). No elevated readings were found in this area.

An approximate 3-foot spillover on the south adjacent city easement was noted as being contaminated. The address of this spillover is 922 North 5th Street, which is owned by H.U.D. The investigation of this spillover proved to be negative.

Team Leader Notes  
Mike Heronema  
GJ-02045-RJA  
July 22, 1985  
Page 2

Spillover consent forms are not required per C. Kelleher.

Instrument C-4068 was not post-calibrated until 25 July 1985. It was in the Electronic Laboratory (E-Lab) for a check, no adjustments were necessary.

All team members were frisked before eating, drinking, and smoking in a clean designated area, and prior to leaving the property.

This survey confirms Colorado Department of Health (CDH) and Oak Ridge National Laboratory (ORNL) inclusion data.

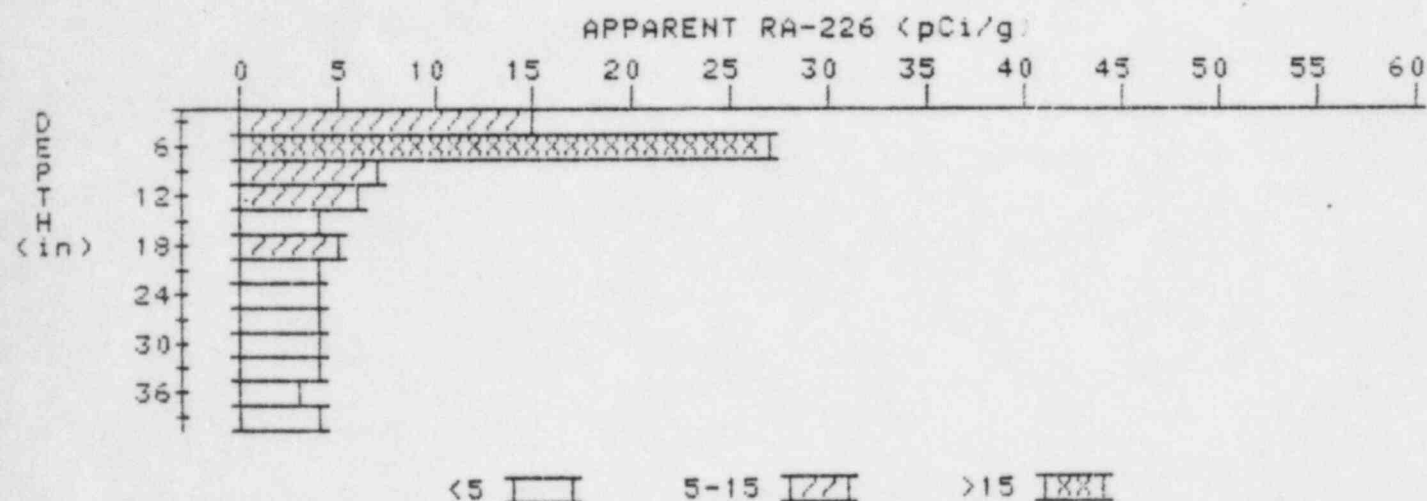
# APPARENT RADIUM-226 CONCENTRATION DECONVOLUTION GRAPH

5

PROPERTY NUMBER: GJ-02045-RM

HOLE NUMBER: 5

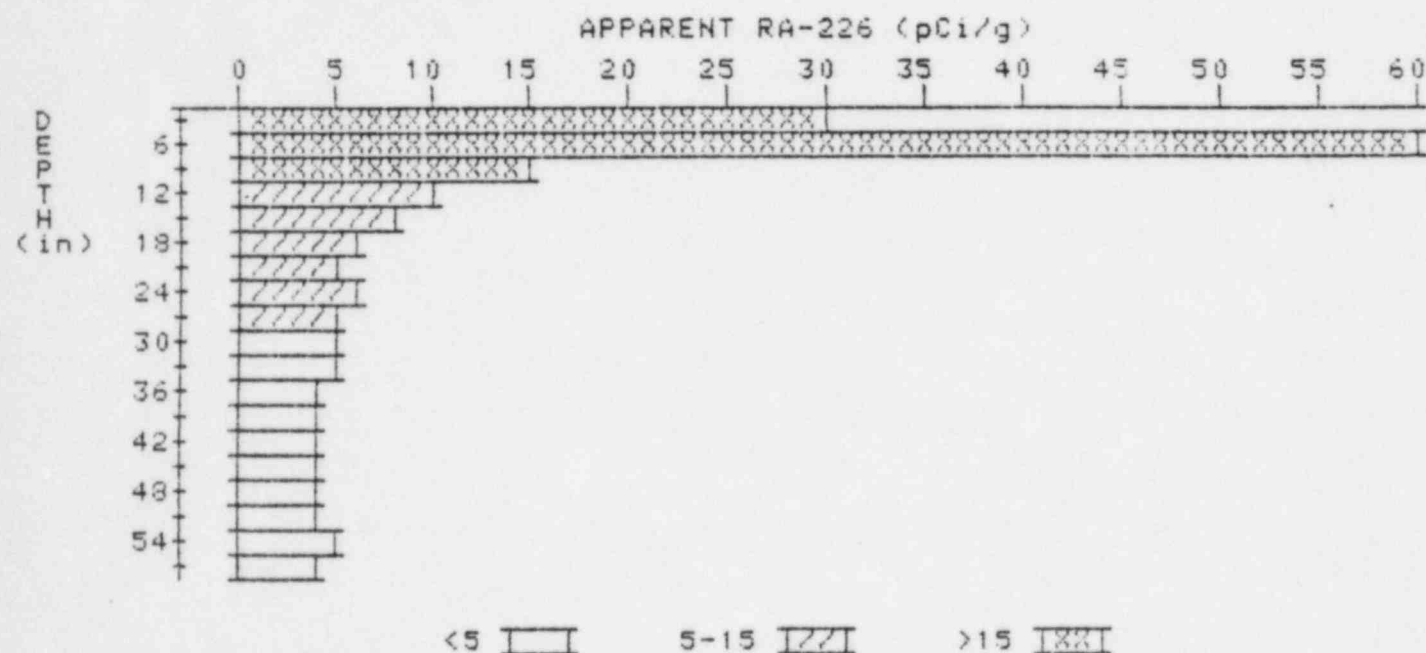
LOCATION: 137208



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	15.0	15.0
6	16.0	27.0
9	10.8	6.5
12	8.0	6.2
15	6.2	4.4
18	5.4	5.0
21	4.8	4.4
24	4.4	4.0
27	4.2	4.0
30	4.1	4.1
33	4.0	4.0
36	3.9	3.4
39	4.1	4.1

# APPARENT RADIUM-226 CONCENTRATION 27 DECONVOLUTION GRAPH

PROPERTY NUMBER: GJ-02045-RM  
HOLE NUMBER: 27  
LOCATION: 230256



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	29.5	29.5
6	35.0	66.1
9	23.0	15.4
12	15.3	9.6
15	10.8	7.6
18	8.1	6.0
21	6.6	5.0
24	6.0	5.8
27	5.5	5.3
30	5.1	4.9
33	4.8	5.0
36	4.4	3.9
39	4.3	4.5
42	4.1	3.7
45	4.1	4.1
48	4.1	3.9
51	4.2	4.4
54	4.2	4.7



57

3.9

3.9

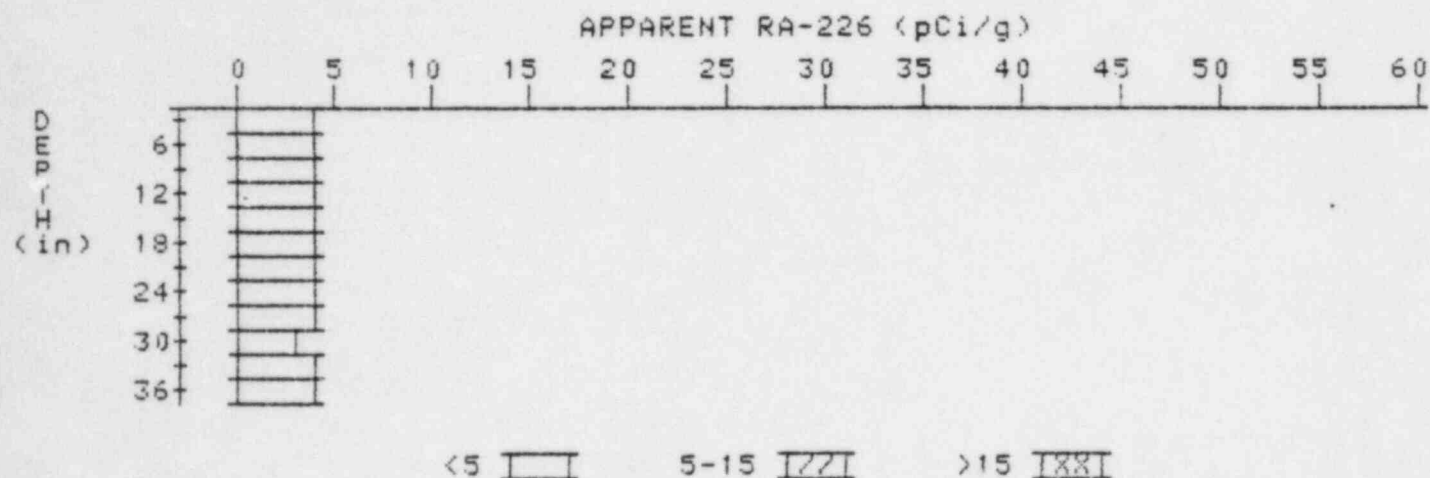
# APPARENT RADIUM-226 CONCENTRATION 31

## DECONVOLUTION GRAPH

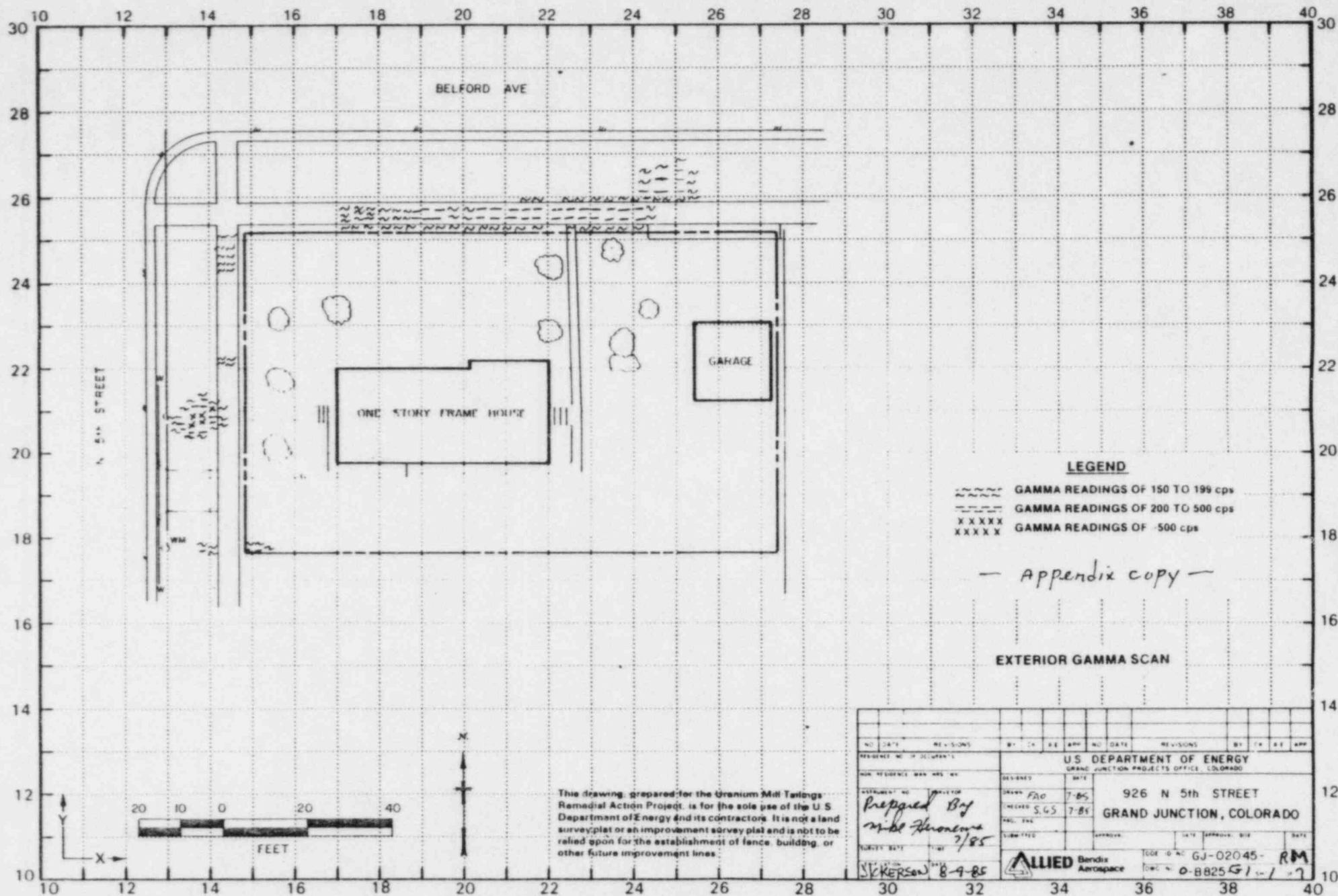
PROPERTY NUMBER: GJ-02045-R1A

HOLE NUMBER: 31

LOCATION: 250200



Depth (in)	Apparent Radium-226 (pCi/g) Undeconvolved	Apparent Radium-226 (pCi/g) Deconvolved
3	3.7	3.7
6	3.8	3.8
9	3.9	3.9
12	4.0	4.2
15	4.0	4.0
18	4.0	4.0
21	4.0	4.0
24	4.0	4.0
27	4.0	4.4
30	3.8	3.4
33	3.8	3.8
36	3.8	3.8



This drawing, prepared for the Uranium Mill Tailings Remedial Action Project, is for the sole use of the U.S. Department of Energy and its contractors. It is not a land survey plat or an improvement survey plat and is not to be relied upon for the establishment of fence, building, or other future improvement lines.

NO. DATE		REV. NO.		BY		CHK		DATE		REV. NO.		BY		CHK		DATE	
REQUEST NO. 11 JULY 85 FOR RESIDENCE 926 N 5TH ST.										U.S. DEPARTMENT OF ENERGY GRAND JUNCTION PROJECTS OFFICE, COLORADO							
DESIGNED BY: <i>Prepared By</i> CHECKED BY: <i>W. H. Thompson</i> DATE: 7/85										926 N 5TH STREET GRAND JUNCTION, COLORADO							
DRAWN: F.A.O. CHECKED: S.G.S. DATE: 7-85										TOLERANCE: 1/8"							
SUBMITTED BY: <i>SKK</i> DATE: 8-9-85										APPROVED BY: <i>RM</i> DATE: 8-9-85							
ALLIED Bendix Aerospace										TOLERANCE: GJ-02045- SPEC. NO. 0-BB25G1-1-1							