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Trans. No. MK-3050-SLC-0224Contract No. 3050Date May 8, 1985

PROJECT: UMTRA

CLIENT: U.S. DEPARTMENT OF ENERGY

TO: <u>U.S. Department of Energy</u>	APPROVED FOR CONSTRUCTION/FABRICATION	A
<u>5301 Central, NE, Suite 1700</u>	INFORMATION ONLY	B
<u>Albuquerque, NM 87108</u>	APPROVAL ACTION REQUESTED	C
ATT: <u>Mr. Mark Matthews</u>	DISAPPROVAL-RESUBMIT	D
	APPROVAL WITH COMMENTS	E

REMARKS The Final REA with Final Design for SL-017 is attached herewith  
and is distributed as noted below.

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BY:

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NAME &amp; TITLE

DATE REC'D. 5/13/85Reg. mail 5/18/85

DEPARTMENT OF ENERGY  
ALBUQUERQUE OPERATIONS OFFICE  
CONTRACT NO. DE-AC04-83AL18796

# **Radiological and Engineering Assessment**

Vicinity Property No. SLC 017

Remedial Actions  
Contractor  
for the  
Uranium Mill Tailings  
Remedial Actions  
Project

Vicinity Property No. SLC 017



FINAL  
THE RADIOLOGICAL AND ENGINEERING ASSESSMENT  
AND FINAL DESIGN

FOR  
SALT LAKE CITY PROPERTY

SL-017

May 8, 1985

PREPARED FOR  
URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT OFFICE  
UNITED STATES DEPARTMENT OF ENERGY

PREPARED BY  
MORRISON-KNUDSEN COMPANY, INC.

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- A. Survey Data Logs



1.0 Executive Summary

1.1 Introduction

Property SL-017 is a private residence located at 2980 South 2700 East, Salt Lake City, Utah.

1.2 Evaluation and Recommendation

1.2.1 Residual Radioactive Material Involvement

The area under the carport and concrete driveway is contaminated.

1.2.2 Recommended Remedial Action Option

The recommended option is to remove the contaminated material and restore the property.

1.2.3 Estimated Costs

The estimated remedial action cost is \$16,400.00

1.2.4 Schedule

The estimated remedial action duration is 20 to 30 days.

## 2.0 ENGINEERING FIELD SURVEY

### 2.1 Property Description

#### 2.1.1 Property Use and Occupancy

Property SL-017 is a private residence located at 2980 S. 2700 E. and owned by Nat M. Taggart. The map in Figure 2.1 illustrates the property's vicinity location.

#### 2.1.2 Legal Description

The legal description as recorded with the Salt Lake County Recorder's Office in Deed Book No. 4784, Page 1244 follows:

"Lot 19 North Millcreek Heights Subdivision."

#### 2.1.3 Bordering Properties

The lot is zoned R-1-8, single family residential zone, located less than 5 miles east of the Old Vitro mill tailings site. The property is bounded on the north by 2980 S. Street; on the east by 2700 East Street; on the south by public alleyway; and on the west by a single family residential lot.

### 2.2 Existing Facilities and Structures

#### 2.2.1 Structures

There is a single family residential house with a full basement, an attached covered carport, and a small prefabricated metal shed located on the property.

The main floor of the wood framed house is at ground level. The northerly part of the house is constructed of wood siding while the southerly end of the house, which was converted from a garage, has a brick finish. The north end of the house is constructed over a full concrete basement. A family room is constructed on the connected garage slab. There is one outside concrete stair entry to the basement at the southwest corner of the house and one interior stair access at the south end of the house from the converted garage area. There is a fireplace in the south end of the basement.

The carport is a flat roof wood framed structure attached to the south end of the house over a concrete slab. The back end of the carport is a storage room with an exterior brick finish.

The yard area has a double car concrete driveway leading to the carport, sidewalk to the east entry, lawn with sprinkler system, approximately 1-1/2 dozen trees ranging from several inches to 16 inches in diameter, shrubs around the house and along the south property line, garden plot in the southwest corner of the lot, planter attached to the east side of the house, and hedge/grapes/chain link fence along the south property line.

#### 2.2.2 Utilities

Utilities are serviced to the property as follows:

Electric power - See Site Plan Fig. 4.1.

Telephone - See Site Plan Fig. 4.1.

Water - See Site Plan Fig. 4.1.

Gas - See Site Plan Fig. 4.1.

Sewer - See Site Plan Fig. 4.1.

#### 2.2.3 Site Plan and Survey Data

See Figure 4.1 for a site plan of the property. Property survey data and photos are presented in Table 2.1 and Figures 2.2, 2.3, and 2.4.

Table 2.1

PROPERTY SURVEY DATA

GENERAL:

Site Location: Salt Lake City, Utah  
Property Address: 2980 S. 2700 E.  
Owner's Name: Nat Taggart Address: Same  
Lot No.: 19 Property Type: Residential  
Occupancy Group: Adults: 2 Children: -0-  
Survey Completed By: Russ Livengood, Jim Powers Date: 22 March 84  
Property Description - Exterior:

Dwelling: Sq. Ft.: \_\_\_\_\_  
Levels: Two - Basement and Main Floor  
Construction Type: Frame with Al and Brick Veneer - Old Garage  
Converted to Family Room  
Foundation: Half Basement - Concrete

Walls

Garage: Carport with Storage Shed West End  
Storage Bldg: Prefab: \_\_\_\_\_  
Other: Green Brick Wall with Slab Floor, Wood Doors and Roof  
Improvement Additions: Carport Porches: \_\_\_\_\_  
to Dwellings: Deck: Concrete Porch (Wood)  
Patio: \_\_\_\_\_

Other: \_\_\_\_\_  
Driveway: Concrete: X Paved: \_\_\_\_\_  
Gravel: \_\_\_\_\_ Other: \_\_\_\_\_  
Sidewalks: Concrete/Paved: Concrete - Along 2980 S. Street  
Other: \_\_\_\_\_  
Fences/Gates: Wood: \_\_\_\_\_ Other: \_\_\_\_\_  
Chain Link: Southwest Corner of Property; Chain Link on Concrete  
Block Retaining Wall

Radiological and Engineering Assessment: Property SL-017

Table 2.1 (cont'd)

PROPERTY SURVEY DATA

Site Location: Salt Lake City, Utah

Property Address: 2980 S. 2700 E

Grounds: Lawn: Lawn with Sprinkler Irrigation System

Trees: Approximately 1-1/2 Dozen Ranging from 2-16" Diameter

Shrubs: Around House and Along South Property Line

Garden: Strawberry Planter South of Carport

Grading: Relatively Flat

Other: \_\_\_\_\_

Soil Type: \_\_\_\_\_

Existing Survey Plot: \_\_\_\_\_

Property Description - Interior:

Walls

Room	Floor	E	W	N	S	Ceiling	Comments
------	-------	---	---	---	---	---------	----------

Utilities:

Heating: Gas: \_\_\_\_\_ Electric: \_\_\_\_\_

Hot Water: \_\_\_\_\_ Other: \_\_\_\_\_

Air Cond: Gas: \_\_\_\_\_ Heat Pump: \_\_\_\_\_



Radiological and Engineering Assessment: Property SL-017

Table 2.1 (cont'd)

PROPERTY SURVEY DATA

Site Location: Salt Lake City, Utah

Property Address: 2980 S. 2700 E

Electric Line Location: See Site Plan Fig. 4.1

Gas Line Location: See Site Plan Fig. 4.1

Water Line Location: See Site Plan Fig. 4.1

Sewage Line Location: See Site Plan Fig. 4.1

Telephone Line Location: See Site Plan Fig. 4.1

Building Codes and Zoning:

<u>Codes</u>	<u>Local</u>	<u>State</u>	<u>Federal</u>
<u>Building Work</u>	<u>U.B.C.</u>		
<u>Plumbing</u>			
<u>HVAC</u>			
<u>Electrical</u>			
<u>Other</u>			

Zoning District: Salt Lake County

Present Dwelling Zoning: R-1-8

Setbacks: Front: \_\_\_\_\_

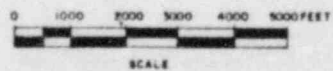
Rear: \_\_\_\_\_

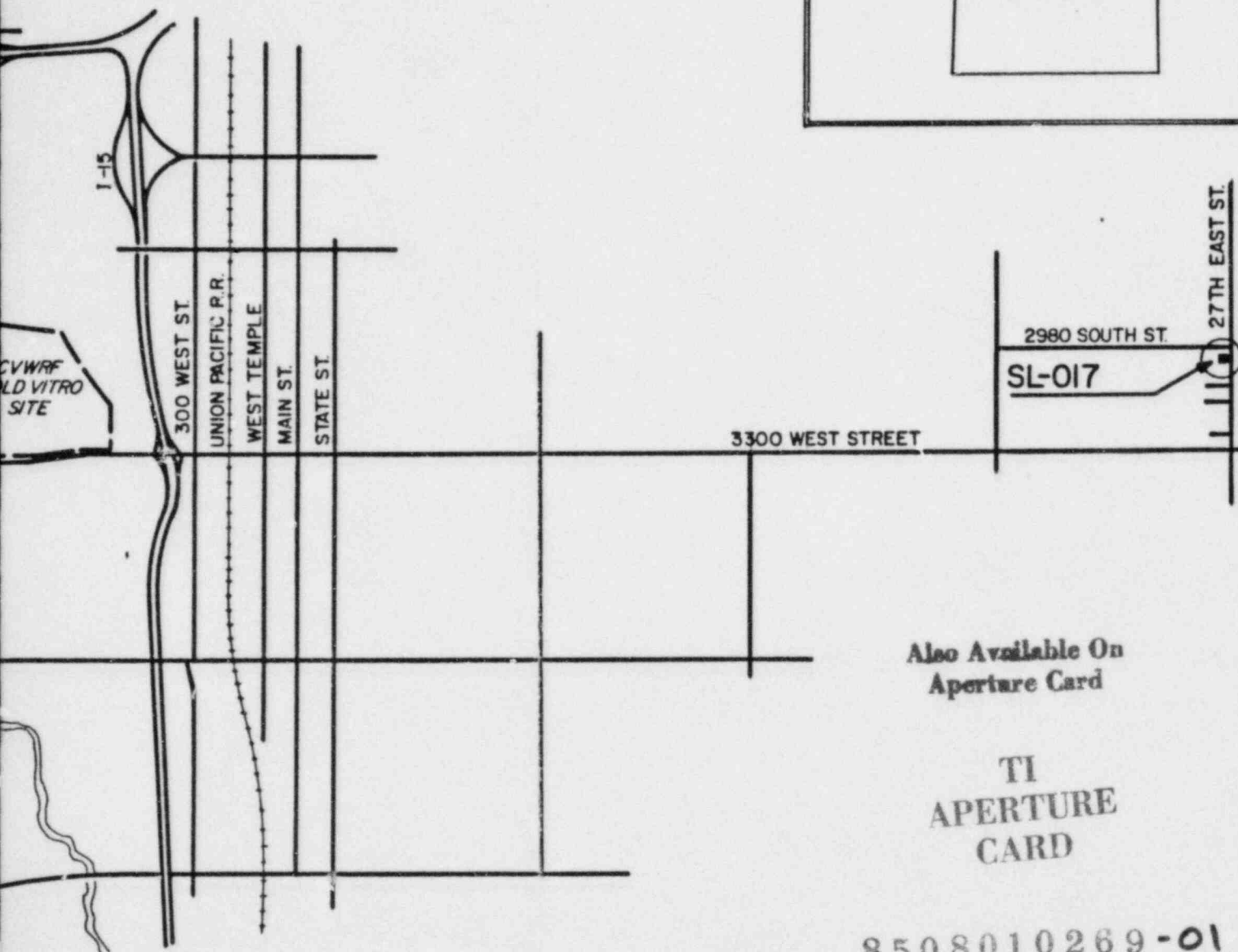
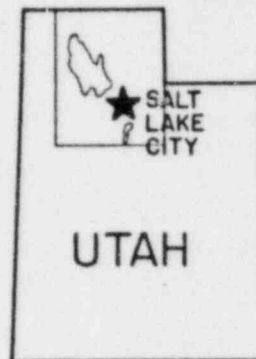
Side: \_\_\_\_\_

Other: \_\_\_\_\_

Photographs:

<u>Roll Frame</u>	<u>Description</u>	<u>Direction</u>
<u>Fig. 2.2</u>	<u>Front of House</u>	<u>North</u>
<u>Fig. 2.2</u>	<u>Front of Driveway/Carport</u>	<u>West</u>
<u>Fig. 2.3</u>	<u>House/Carport</u>	<u>West</u>
<u>Fig. 2.3</u>	<u>House/Carport</u>	<u>North</u>
<u>Fig. 2.4</u>	<u>Side House/Carport</u>	<u>West</u>
<u>Fig. 2.4</u>	<u>Rear House/Carport</u>	<u>West</u>





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NOTE:  
PROPERTY LOCATED IN SALT LAKE COUNTY.

										<p align="center"><b>U. S. DEPARTMENT OF ENERGY</b>  <b>ALBUQUERQUE, NEW MEXICO</b></p>									
										<p align="center"><b>FIGURE 2.1</b>  <b>VICINITY MAP SL-017</b></p>									
										<p align="center">SALT LAKE COUNTY, UTAH  URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT</p>									
										<p align="center">APPROVED: <b>NR</b>      DATE:      DOE PROJECT MANAGER: <b>NR</b>      DATE:      DOE PROJECT ENGINEER: <b>NR</b>      DATE:</p>									
										<p align="center">PROJECT NO. <b>DE-AC04-83AL18796</b></p>									
										<p align="center">DRAWING NO. <b>SL-017-005</b></p>									
										<p align="center">REV. <b>0</b></p>									



Front of House Looking North



Front of House, Driveway and Carport Looking West

Figure 2.2 Property Photos





House and Carport Looking West



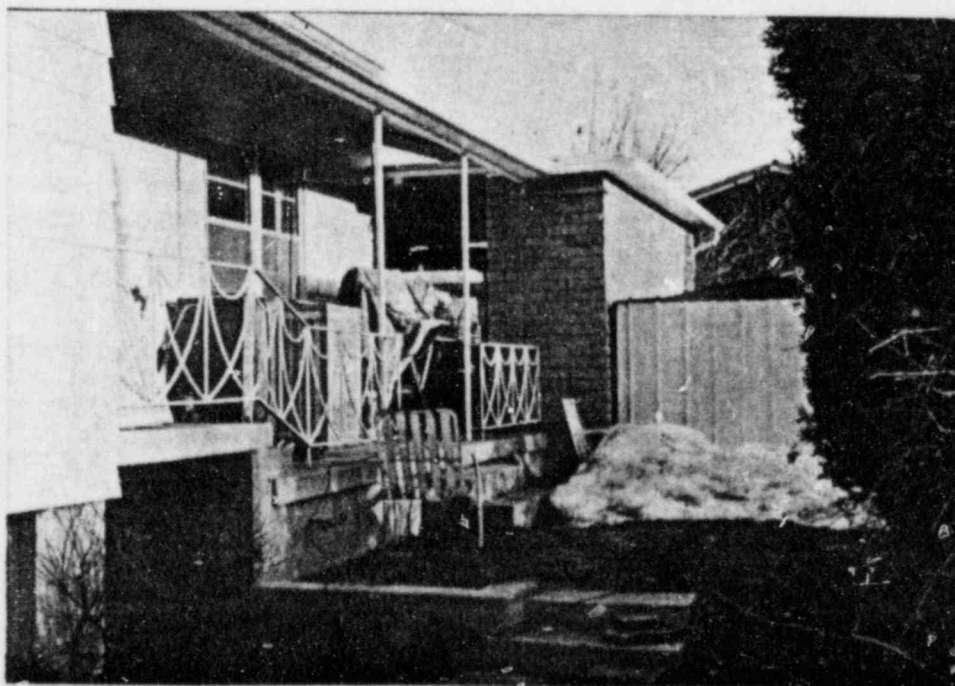
House and Carport Looking North

Figure 2.3 Property Photos





Side of House and Carport Looking West



Rear of House and Carport Looking West

Figure 2.4 Property Photos

### 3.0 RADIOLOGICAL SURVEY AND ASSESSMENT

#### 3.1 Gamma Exposure Rate Survey

##### 3.1.1 Survey Method

Outdoor and indoor gamma scans were conducted in accordance with RAC UMTRA Procedures 019A and 019B. The indoor survey was conducted in the room adjacent to the carport where the presence of contaminated materials was suspected (Radiological Survey at Salt Lake City Site, Vicinity Property SL-017, ORNL, March 1983).

##### 3.1.2 Survey Results

Outdoor surface gamma readings on the property, as shown in Table 3.1 range from 10 to 58 micro R/hr. This may be compared with the background for the Salt Lake City site of 10 micro R/hr.

Indoor readings, as shown in Figure 3.1, range from 10 to 13 micro R/hr.

#### 3.2 Borehole Survey

##### 3.2.1 Survey Method

A borehole survey was conducted in accordance with RAC UMTRA Procedure 018.

##### 3.2.2 Survey Results

Contamination was found in the hole drilled in the carport but not in the hole drilled in the porch. The location and depth of the contamination is described in Table 3.2 and is shown in Figure 3.1.

Borehole soil samples collected by ORNL during the inclusion survey indicated the presence of contamination in the driveway. Since these holes give a good characterization of this contamination and demonstrate the boundary around the carport, their locations are shown on Figure 3.1 of this assessment and the results are found in Table 3.2.

3.3 Radon/Radon Daughter Survey

No radon/radon daughter surveys were performed inside the house at the property during the present survey. Two radon daughter measurements were conducted by ORNL during the inclusion survey. One, in the main level, showed concentrations of 0.016 WL. The other was taken in the basement; the concentration was 0.024 WL. This is believed to be the result of the tailings found under the carport and driveway.

3.4 Estimated Extent of Contamination

One area of contamination was identified in the survey. This area consists of the covered carport, the concrete driveway, and a 3-foot wide strip immediately south of the driveway. The estimated depth of the contamination is 12 inches in the driveway and about 36 inches in the carport.

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Radiological and Engineering Assessment: Property SL-017

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Table 3.1  
OUTDOOR SURFACE GAMMA SURVEY  
Property SL-017

POINT	uR/hr	POINT	uR/hr
0+00	10	A+70	13
0+10	12	A+60	12
0+20	12	A+50	12
0+30	12	A+40	12
0+40	12	A+30	11
0+50	11	A+20	11
0+60	11	A+10	11
0+70	11	A+00	11
0+80	12	B+00	11
0+90	13	B+20	12
0+100	13	B+30	11
0+110	15	B+40	12
0+120	12	B+50	13
0+130	12	B+60	13
0+140	11	B+70	13
A+140	12	B+80	13
A+130	11	B+90	13
A+120	11	B+100	21
A+110	26	B+110	27
A+100	28	B+120	13
A+90	14	B+130	11
A+80	20	B+140	13

Radiological and Engineering Assessment: Property SL-017

Table 3.1 - cont'd  
OUTDCOR SURFACE GAMMA SURVEY  
Property SL-017

POINT	uR/hr	POINT	uR/hr
C+140	13	D+23 (Window Well)	13
C+130	11	D+93.5 (Carport)	27
C+120	13	D+100	22
C+110	14	D+110	20
C+100	16	D+120	13
C+90	23	D+130	13
C+80	14	D+140	13
C+70	13	E+140	13
C+60	12	E+130	13
C+50	13	E+120	13
Center of Porch	13	E+110	24
C+40	14	E+100	33
C+30	13	E+93.5	58
C+20	12	Side of House	13
C+10	12	E+20	12
C+00	11	E+10	11
D+00	11	F+0C	11
D+10	12	F+10	12
D+20	13	F+20	13



Radiological and Engineering Assessment: Property SL-017

Table 3.1 - cont'd  
OUTDOOR SURFACE GAMMA SURVEY  
Property SL-017

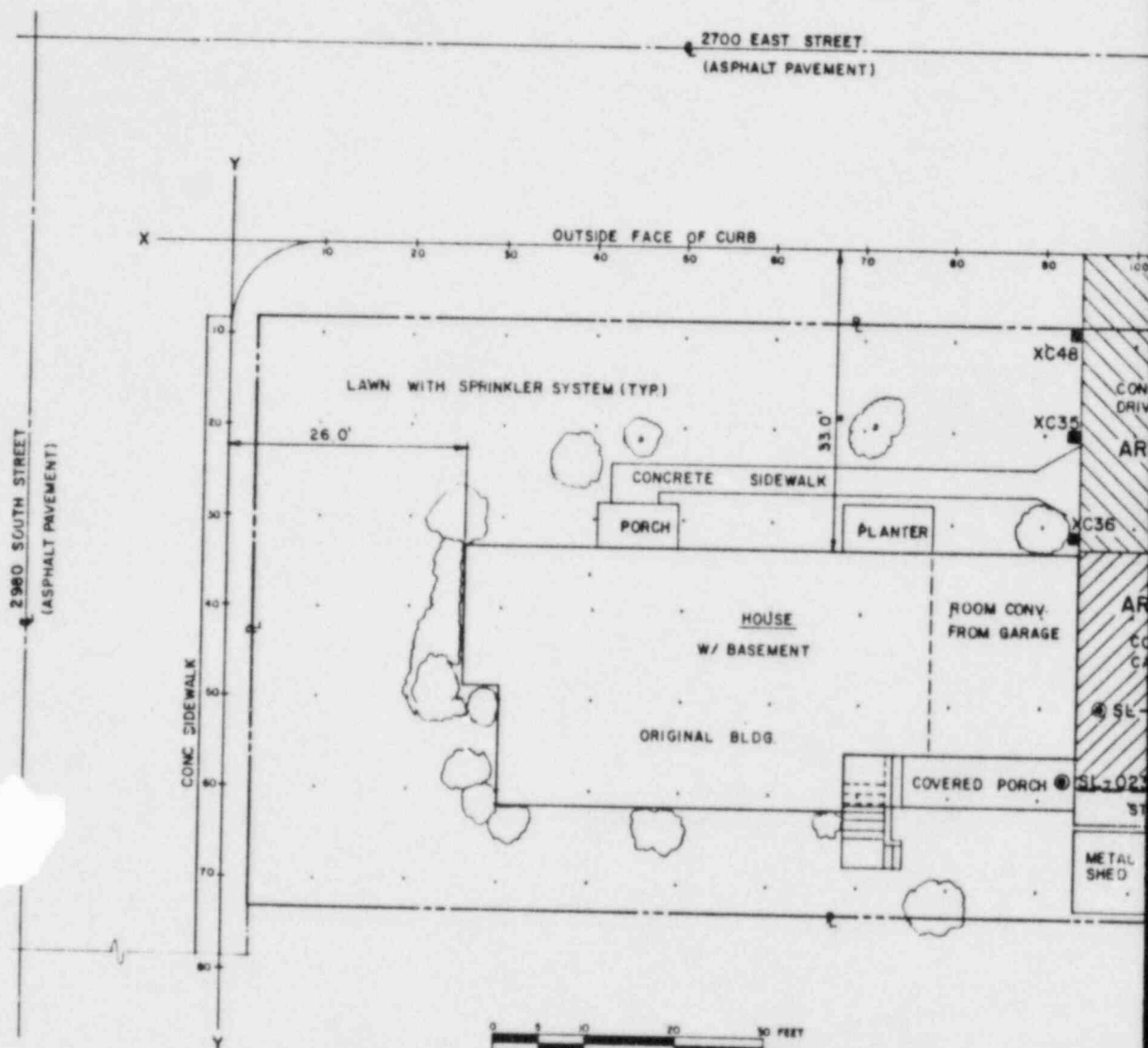
POINT	uR/hr	POINT	uR/hr
F+30	13	FG+110	20
W. side of house +40	12	G+93.5	13
W. side of house +50	12	G+90	13
W. side of house +60	12	G+80	13
W. side of house +70	14	G+70	12
W. side of house +80	14	G+60	11
W. side of house +90	15	G+50	11
W. side of house +93	34	G+40	11
W. end of carport +94	34	G+30	12
W. end of carport +100	32	G+20	12
W. end of carport +110	26	G+10	12
S.W. corner of carport	31	G+00	11
F+120	15	S.W. corner of house	11
F+130	13	Porch - A	13
F+140	13	Porch - B	11
G+140	13	Porch - C	11
F+130	13	Porch - D	11
F+120	13		
G+110	13		
G+100	13		
FG+100	18		

Radiological and Engineering Assessment: Property SL-017

Table 3.2  
BOREHOLE SURVEY  
PROPERTY SL-017

HOLE	CONTAMINATION DEPTH
A	0-36"
B	None
XC33	None
XC34	None
XC35	None
XC36	0-12"
XC37	None
XC38	None
XC39	4-20"
XC45	0-6"
XC46	0-6"
XC47	0-12"
XC48	None
XC49	0-8"

Note: All "XC" holes were augered and analyzed by ORNL during the period August 1981-March 1982 (results of the Radiological Survey at Property SL-017, ORNL, March 1983).



DEPTH OF ESTIMATED  
CONTAMINATION  
LEGEND

AREA "A"  = 12"

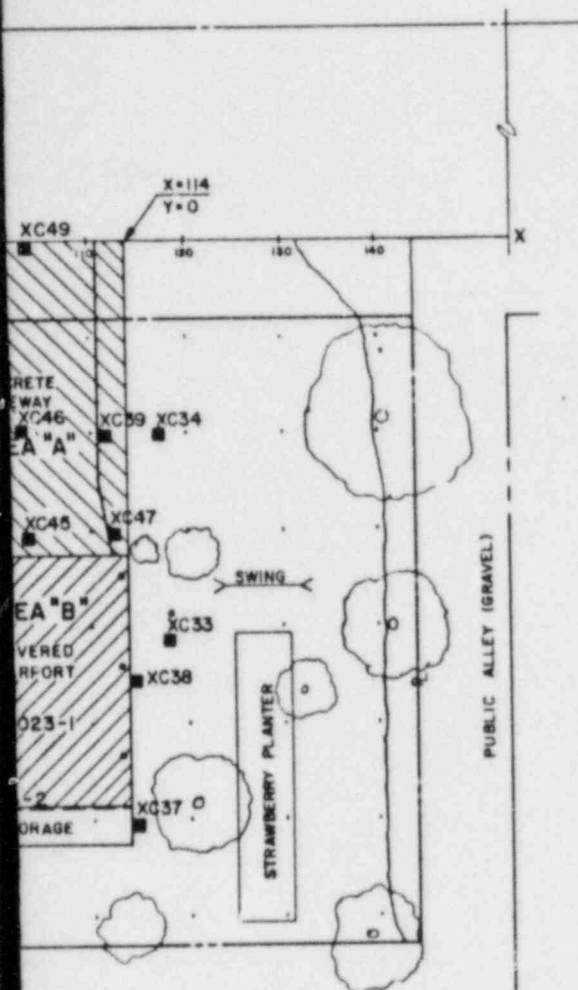
AREA "B"  = 36"

B
A
NO.

# LEGEND

SL-017-2 AUGER HOLE DESIGNATION - BY M.K. MAY 1984.

XC34 AUGER HOLE DESIGNATION - BY ORNL MARCH 1982.



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U. S. DEPARTMENT OF ENERGY ALBUQUERQUE, NEW MEXICO			
FIGURE 3.1 RADIOLOGICAL SURVEY DATA SL-017			
SALT LAKE COUNTY, UTAH URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT			
DATE	FOR PROJECT MANAGER	DATE	FOR PROJECT ENGINEER
PROJECT NO. DE-AC04-83AL18796		DRAWING NO. SL-017-010	
MORRISON KNUDSEN		REV B	

DATE	REVISIONS	BY	CHK	APP	DOE
1984	ADD ORNL BOREHOLE LOCATIONS	TLE			
1984	DRAFT REA SUBMITTAL	RR			
		BY	DOE	DOE	DOE

#### 4.0 ENGINEERING ASSESSMENT

Engineering options were formulated and evaluated based on the radiological and engineering assessment for this property. Factors forming the basis of the evaluation were: the extent and location of the contamination, construction costs, and required demolition and constructibility for the various options. Results of the evaluation are detailed below.

##### 4.1 Evaluation of Options

###### 4.1.1 Options

Two options were evaluated for property SL-017:

Option 1 - No action should be taken.

Option 2 - Decontamination of the property including retrieval of the contaminated material and restoration of the property.

This option involves mainly the decontamination of the areas under the carport and concrete driveway.

This will require demolishing the concrete slab in the carport area as well as the concrete driveway, excavating contaminated material, backfilling with clean backfill and constructing a new slab and driveway.

There is a small amount of lawn area around the area discussed above that requires excavation of contaminated material, backfilling with clean backfill, grading and sodding the disturbed lawn area.

###### 4.1.2 Costs

Estimated costs for the activities associated with Option 2 are detailed in Table 4.1. Costs include labor, insurance, material, equipment, supplies, overhead, profit, and contingency. All costs are escalated to 1985 dollars. It is anticipated that the time required for the subcontractor to complete the work will be 20 to 30 days.



4.2 Recommendation

The limited cost and amount of remedial action work precluded evaluating any more than these two options. The results of the radiological assessment concluded that contamination levels on the property exceeded EPA guidelines. Therefore, based on these guidelines, it is recommended that Option 2, decontamination of the property, be pursued. The total estimated cost for Option 2 is \$16,400.00.

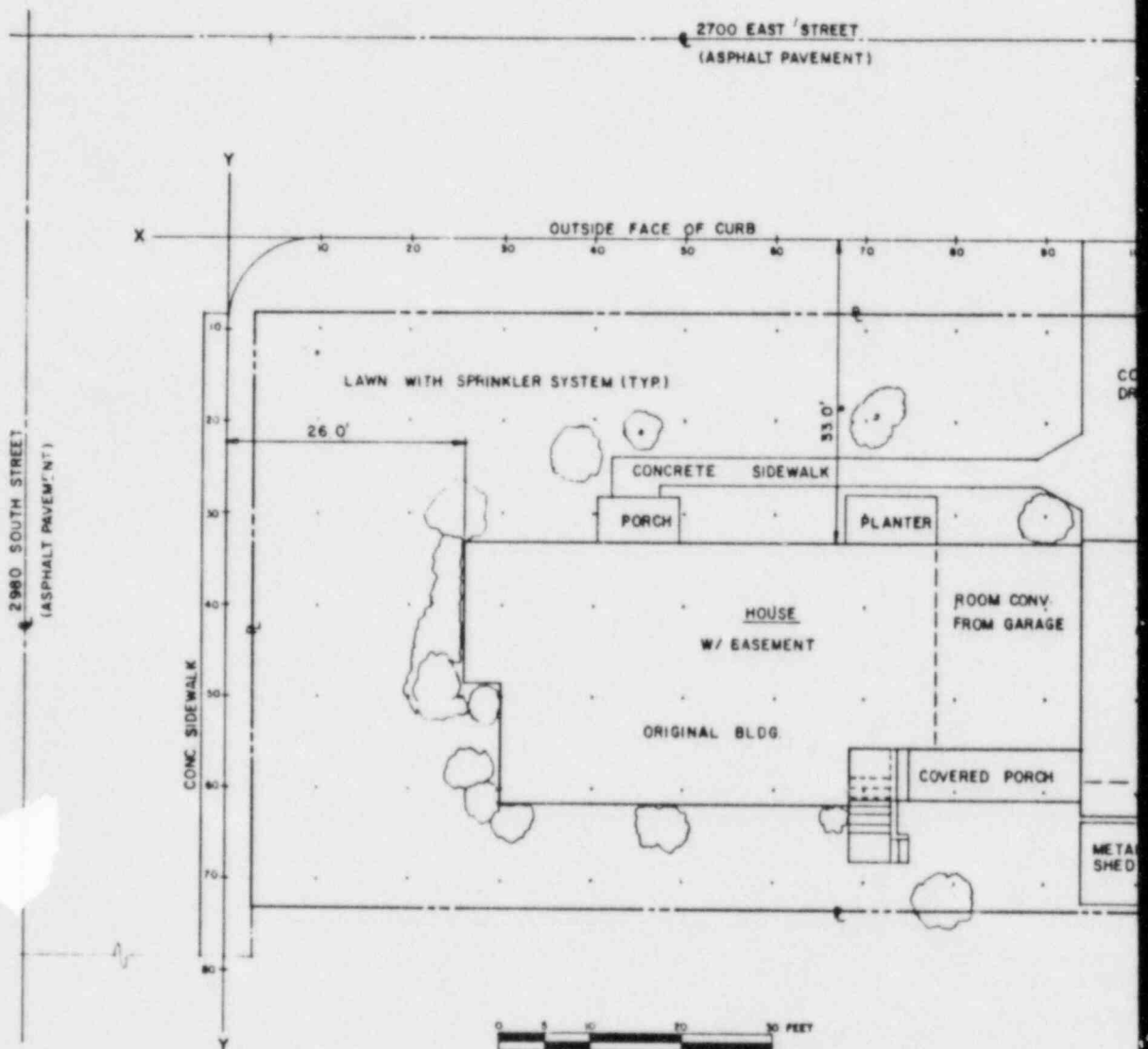
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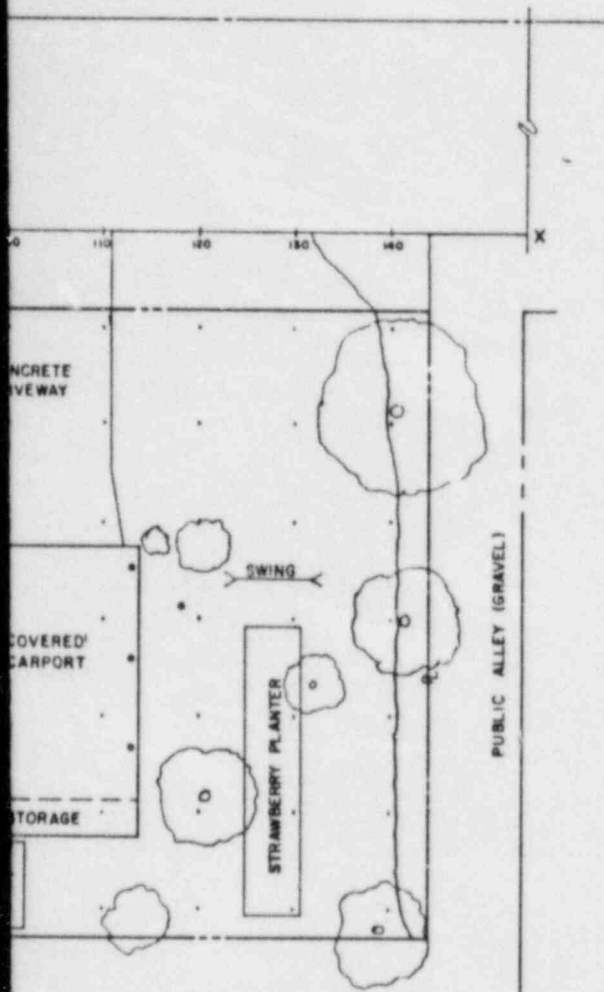
Radiological and Engineering Assessment: Property SL-017

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Table 4.1  
OPTION 2 COSTS

<u>Activity</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Estimated Cost</u>
Excavation	8.30	83 cy	689.00
Demolish Concrete	245.00	13.5 cy	3,308.00
Backfill	26.40	83 cy	2,190.00
Sod	0.20	100 sf	20.00
4" Conc. Slab	3.50	1,185 sf	<u>4,148.00</u>
Subtotal Direct			10,355.00
5% Contractor's Contingency			515.00
20% Overhead & Profit			<u>2,175.00</u>
Subtotal			13,045.00
<hr/>			
20% Engineers Contingency			2,600.00
1985 Escalation			755.00
Total			16,400.00





# LEGEND

W	WATER LINE
G	GAS LINE
GM	GAS MAIN
S	SEWER LINE
SM	SEWER MAIN
STM	STORM SEWER
E	ELECTRICAL LINE
T	TELEPHONE LINE
TV	CABLE TV
P	PROPERTY LINE
X	FENCE LINE
Q, W or E	METER
G or W	VALVE
P	PROPERTY PIN
●	POWER POLE

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DATE	REVISIONS	BY	CHKD	APPD	DATE	BY	CHKD	APPD	DATE
7/15/84	DRAFT REA SUBMITTAL	RR							

U. S. DEPARTMENT OF ENERGY ALBUQUERQUE, NEW MEXICO			
DESIGNED BY: <i>[Signature]</i> CHECKED BY: <i>[Signature]</i> REVIEWED BY: <i>[Signature]</i> RECOMMENDED BY: <i>[Signature]</i> APPROVED BY: <i>[Signature]</i>		FIGURE 4.1 SITE PLAN SL-017 SALT LAKE COUNTY, UTAH URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT	
DATE	DOE PROJECT MANAGER	DATE	DOE PROJECT ENGINEER
NR	NR	NR	NR
PROJECT NO.		PROJECT NO.	
DE-AC04-83AL18796		DE-AC04-83AL18796	
DRAWING NO.		DRAWING NO.	
SL-017-015		SL-017-015	
REV		REV	
A		A	



MORRISON  
KNUDSEN

## 5.0 TECHNICAL SPECIFICATIONS

Technical specifications applicable to this property are indexed in Table 5.1 . Specifications previously approved by the Department of Energy (DOE) are noted in the table.



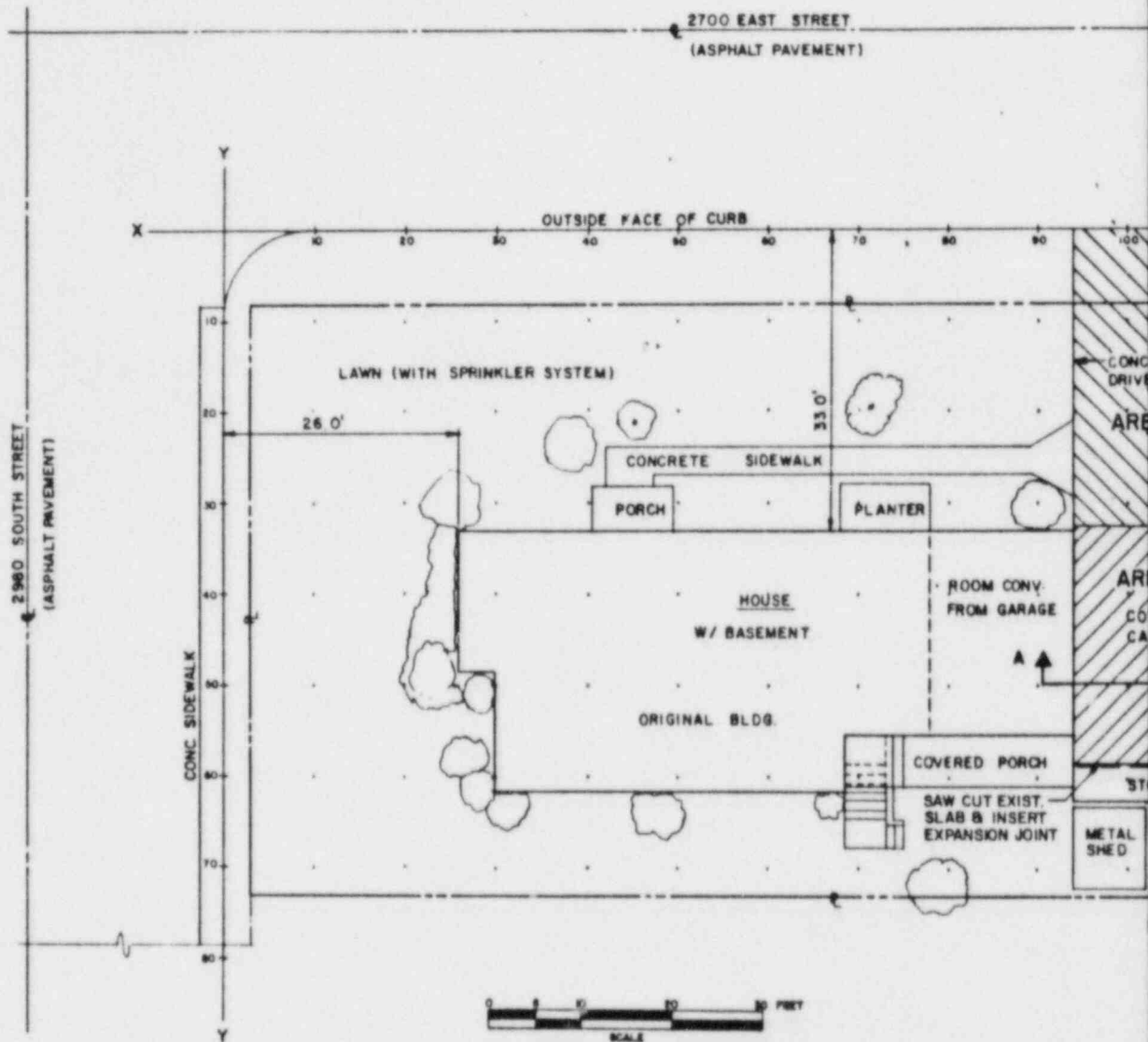
Table 5.1  
INDEX OF TECHNICAL SPECIFICATIONS

Description		Specifications Previously Approved	Specifications Requiring DOE Approval
SECTION 02050	DEMOLITION	X	
SECTION 02110	CLEARING AND GRUBBING	X	
SECTION 02130	CONTAMINATED MATERIAL REMOVAL	X	
SECTION 02150	UNDERPINNING	X	
SECTION 02200	EXCAVATION AND BACKFILL	X	
SECTION 02480	LANDSCAPING	X	
SECTION 03300	CAST-IN-PLACE CONCRETE	X	

6.0 CONSTRUCTION DRAWINGS

Listed below is an index of the construction drawings required for remedial action on this property.

<u>Drawing Number</u>	<u>Drawing Title</u>
SL-017-120	Excavation & Restoration Plan SL-017



DEPTH OF ESTIMATED  
CONTAMINATION  
LEGEND

AREA "A"  = 12"

AREA "B"  = 36"

PROTECT HOUSE  
FOUNDATION & WALL

**NOTES:**

1. THE LATEST REVISION OF THE FOLLOWING TECHNICAL SPECIFICATIONS APPLY TO THE REMEDIAL ACTION WORK REQUIRED FOR PROPERTY NO. SL-017.

SECTION 02050  
DEMOLITION

SECTION 02110  
CLEARING AND GRUBBING

SECTION 02130  
CONTAMINATED MATERIAL REMOVAL

SECTION 02180  
UNDERPINNING

SECTION 02200  
EXCAVATION AND BACKFILL

SECTION 02480  
LANDSCAPING

SECTION 03300  
CAST-IN-PLACE CONCRETE

2. UTILITY LOCATIONS ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS SHALL BE DETERMINED BY THE SUBCONTRACTOR PRIOR TO START OF CONSTRUCTION.
3. THE EXCAVATION LIMITS AND DEPTHS ARE BASED ON A LIMITED NUMBER OF BORINGS TAKEN DURING THE RADIOLOGICAL SURVEYS OF THIS PROPERTY. ADDITIONAL RADIOLOGICAL SURVEYS PERFORMED DURING REMEDIAL ACTION MAY REQUIRE MORE OR LESS EXCAVATION TO BE TAKEN FROM THE DESIGNATED AREAS. ALL CHANGES TO THE LIMITS AND DEPTHS OF EXCAVATION AS SHOWN ON THE DESIGN DRAWINGS SHALL BE AS DIRECTED BY THE CONTRACTORS REPRESENTATIVE.

Also Available On  
Aperture Card

TI  
APERTURE  
CARD

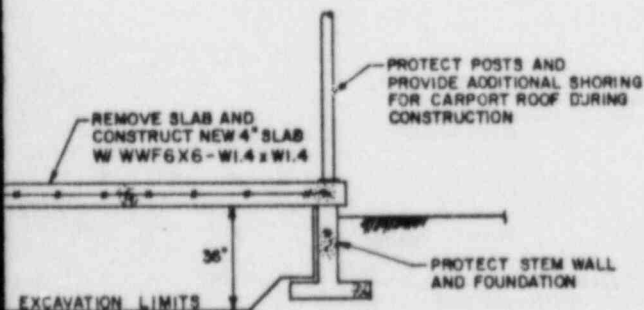
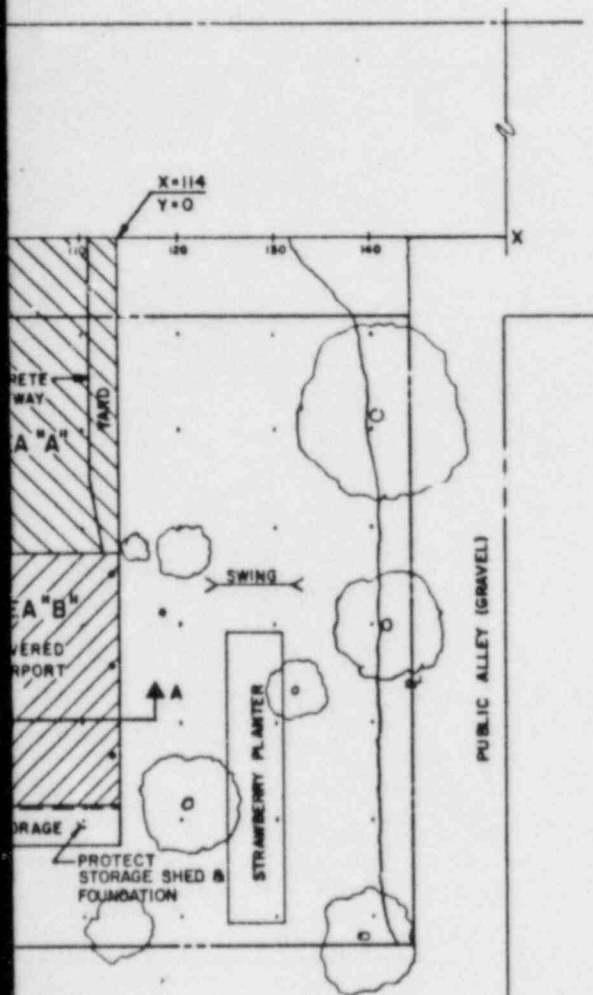
**SCOPE OF WORK**

**AREA "A"**

- DEMOLISH AND REMOVE EXISTING CONCRETE SLAB
- EXCAVATE CONTAMINATED SOIL
- PLACE AND COMPACT STRUCTURAL FILL PER SPEC.
- CONSTRUCT NEW 4 INCH THICK CONCRETE SLAB WITH 6" X 6" WWF
- BACKFILL LAWN AREA WITH COMMON FILL, TOP WITH 6 INCHES OF TOPSOIL AND SOG

**AREA "B"**

- DEMOLISH AND REMOVE EXISTING CONCRETE SLAB
- EXCAVATE CONTAMINATED SOIL
- PLACE AND COMPACT STRUCTURAL FILL PER SPEC.
- CONSTRUCT NEW 4 INCH THICK CONCRETE SLAB WITH 6" X 6" WWF



**SECTION A-A  
NTS**

**U. S. DEPARTMENT OF ENERGY  
ALBUQUERQUE, NEW MEXICO**

**EXCAVATION AND RESTORATION PLAN SL-017**

BALT LAKE COUNTY, UTAH  
URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT

DESIGNED BY  
CHECKED BY  
REVIEWED BY  
APPROVED BY

NR

NR

NR



**MORRISON  
KNUDSEN**

PROJECT NO.

DE-AC04-83AL18796

DRAWING NO.

SL-017-120

REV  
Q

DATE	REVISIONS	BY	CHK	APP	DATE

ISSUE FOR CONSTRUCTION

TLE

ST ST LOC CH S&S S&S

APPENDIX A  
SURVEY DATA LOGS



# BOREHOLE LOG

LOGGING CREW: Turner  
Nelson  
Manship  
 INSTRUMENT ID NO. 26498 Pr #015809

SHEET \_\_\_\_\_ OF \_\_\_\_\_ PAGE \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 PROPERTY ID: SL-~~453~~ 017  
 AREA: Taggart

NOTES: 1. ALL HOLES ARE 4" DIA. UNLESS OTHERWISE NOTED.  
 2. RECORD UNUSUAL CONDITIONS, SUCH AS THE PRESENCE OF WATER IN BOREHOLES AND DEPTH, CASING TYPE AND THICKNESS IF USED, CONCRETE CORES AND THICKNESS, OBSTRUCTIONS, UTILITIES, ETC., IN THE REMARKS SECTION.

HOLE ID: <u>SL-023-1(A)</u>	HOLE ID: <u>SL-023-2</u>	HOLE ID: _____	HOLE ID: _____
TIME DRILLED: _____	TIME DRILLED: _____	TIME DRILLED: _____	TIME DRILLED: _____
TIME LOGGED: _____	TIME LOGGED: _____	TIME LOGGED: _____	TIME LOGGED: _____
SOIL TYPE: _____	SOIL TYPE: _____	SOIL TYPE: _____	SOIL TYPE: _____

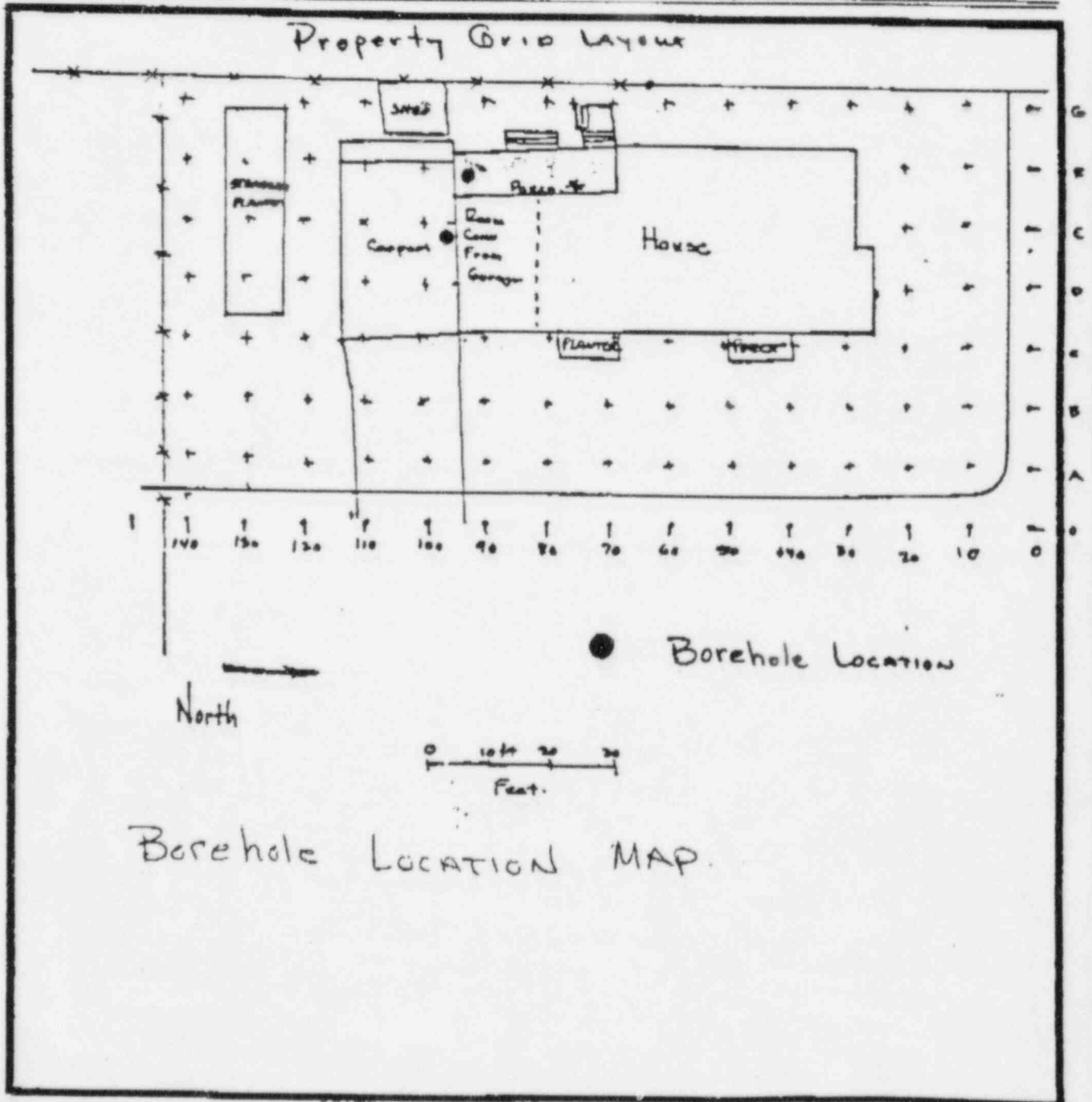
  

DEPTH	COUNTS/1MIN	DEPTH	COUNTS/1MIN	DEPTH	COUNTS/1MIN	DEPTH	COUNTS/1MIN
SURFACE	<u>7376</u>	SURFACE	<u>1209</u>	SURFACE		SURFACE	
0"		0"		0"		0"	
6"	<u>36029</u>	6"	<u>1350</u>	6"		6"	
12"	<u>49279</u>	12"	<u>1448</u>	12"		12"	
18"	<u>38676</u>	18"	<u>1450</u>	18"		18"	
24"	<u>9069</u>	24"		24"		24"	
30"	<u>5620</u>	30"		30"		30"	
36"	<u>4158</u>	36"		36"		36"	
42"	<u>3543</u>	42"		42"		42"	
48"	<u>2962</u>	48"		48"		48"	
54"	<u>2794</u>	54"		54"		54"	
60"		60"		60"		60"	
66"		66"		66"		66"	
72"		72"		72"		72"	
78"		78"		78"		78"	
84"		84"		84"		84"	
90"		90"		90"		90"	
96"		96"		96"		96"	

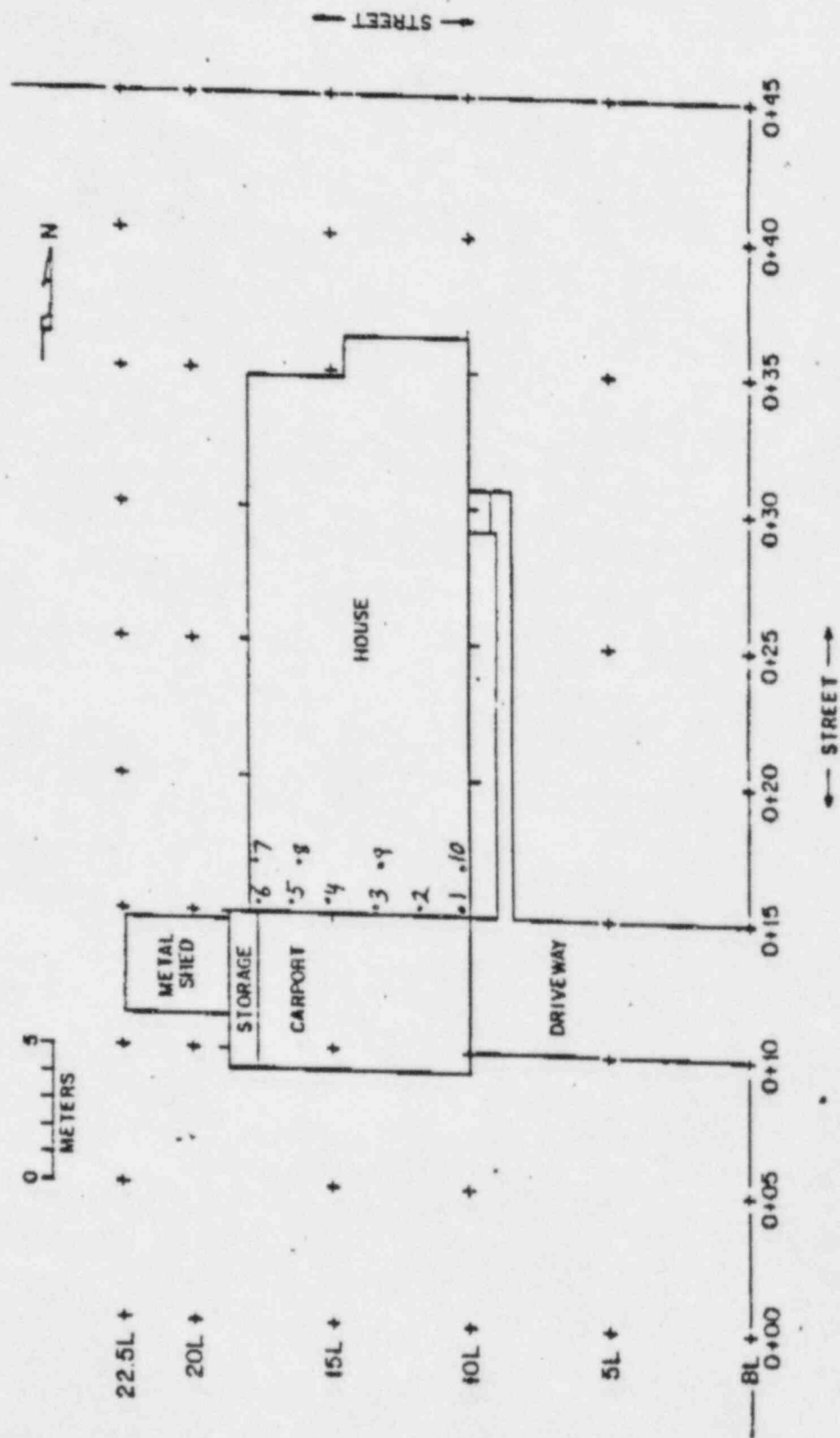
REMARKS: Hole # 1(A) located under carport area  
Hole # 2(B) " on back porch.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# PROPERTY SURVEY SKETCH

SLO-17 Sheet 1 of 1  
 SITE LOCATION TAGGART RES. 2780 S + 270<sup>th</sup> EAST SEC.  
 ADDRESS \_\_\_\_\_  
 PROPERTY TYPE Home LOT NO. \_\_\_\_\_  
 OWNER \_\_\_\_\_  
 SKETCH COMPLETED BY Ray Nelson DATE 5-18-84









MORRISON-KNUDSEN COMPANY, INC.

UMTRA PROJECT OFFICE  
P.O. BOX 9136  
ALBUQUERQUE, NEW MEXICO 87119