Permit

ENTERED

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Date: MAR 0 9 2016
Symbol: EPC-DO-16-056
LA-UR: 16-21078
Locates Action No.: N/A

RECEIVED
MAR 10 2016
NMED
Hazardous Waste Bureau

Mr. John E. Kieling
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Dear Mr. Kieling:

Subject: Transmittal of Class 1 Permit Modification Notification to Update Figures in the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit, EPA ID No. NM0890010515

The purpose of this letter is to submit a Class 1 permit modification to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit issued to the Department of Energy and Los Alamos National Security, LLC (the Permittees) in November 2010. The permit modification provides revisions to figures in Permit Attachments N, G.6, G.10, G.11, and G.14. Updates to text related to figure changes are also provided for Permit Attachments G.6, G.10, and G.11.

The proposed modifications have been prepared in accordance with the Code of Federal Regulations [CFR], Title 40 (40 CFR) § 270.42(a). This Class 1 permit modification consists solely of administrative changes in accordance with 40 CFR § 270.42, Appendix 1, Item A.1 and Permit Section 3.1(3). Permit Section 3.1(3) requires that all figures accurately reflect the location of all buildings and structures, regardless of whether they manage hazardous waste.

This permit modification package includes this transmittal letter and an enclosure with a description of changes, including replacement figures and pages of the revised text in Attachments G.6, G.10, and G.11 (LA-UR-16-21078). Accordingly, a signed certification page has also been provided.

Included herein are three hard copies and one electronic copy of this submittal. The hardcopy submittal contains pages or sections where text has been changed, rather than copies of the entire collection of Permit attachments. The electronic copy, provided only to the New Mexico Environment Department Hazardous

37489

Waste Bureau (NMED-HWB), contains a reproduction of the hardcopy in portable document format (PDF) along with all the word processing files used to create the hardcopy.

Notification of this modification will be sent to the NMED-HWB maintained LANL facility mailing list in accordance with 40 CFR § 270.42(a)(1)(ii) within ninety days of the transmittal of this permit modification.

If you have comments or questions regarding this permit modification, please contact Jordan Arnswald (DOE) at (505) 667-6764 or Mark Haagenstad (LANS) at (505) 665-2014.

Sincerely,

John P. McCann
Division Leader
Environmental Protection and Compliance Division
Los Alamos National Security, LLC

Sincerely,

Kimberly Davis Lebak
Manager
Los Alamos Field Office
U.S. Department of Energy

JPM:KDL:MPH:FDN/lm

Enclosure: 1) Class 1 Permit Modification Notification Structure Changes at Technical Area 54

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ENCLOSURE 1

Class 1 Permit Modification Structure Changes at Technical Area 54

ENV-DO-16-056

LA-UR-16-21078

Date: MAR 0 9 2016

Permit Modification Notification

This document contains a notification for a Class 1 permit modification to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (Permit) issued to the Department of Energy and the Los Alamos National Security, LLC, collectively known as the Permittees, in November 2010. All proposed changes are shown in redline strikeout for Permit Attachments G.6, G.10, and G.11. These changes, as well as the replacement figures for Attachments N, G.6, G.10, G.11, and G.14, are enclosed as Attachment 1 to this modification.

Description

The purpose of this modification submittal is to update figures in Attachments N (Figures) and G (Closure Plans); and to update portions of G.6 (Technical Area 54, Area G, Pad 1, Outdoor Container Storage Unit Closure Plan); G.10 (Technical Area 54, Area G, Pad 9 Outdoor Container Storage Unit Closure Plan); and G.11 (Technical Area 54, Area G, Pad 10 Outdoor Container Storage Unit Closure Plan) that are related to the figure changes. This modification includes the removal or relocation of structures located on permitted units but not associated with the hazardous waste management at the permitted units.

Basis

This modification has been prepared in accordance with Permit Section 3.1(3) and the Code of Federal Regulations, Title 40 §270.42 Appendix I, Item A.1. Permit Section 3.1(3) requires that the figures in Attachment N and in the closure plans in Attachment G accurately reflect the location of all buildings and structures that are not used for management of hazardous waste as a Class 1 permit modification that does not require prior approval. Additionally, all changes to the Permit required are administrative in nature, as outlined in Item A.1 of Appendix I.

Discussion of Changes

Pad 1

Figure 29 (TA-54, Area G, Pad 1) of Attachment N and Figure G.6-1 (Technical Area 54, Area G, Pad 1 Outdoor Container Storage Unit Grid Sampling Locations) of Attachment G.6 were revised to show the placement of seventeen storage structures at Area G, Pad 1. These structures, which are not "new" structures to Area G but are newly arranged at Pad 1, are not associated with hazardous waste storage activities; therefore, existing structure numbers have been removed.

Figure G.6-2 (Technical Area 54, Area G, Pad 1 Outdoor Container Storage Unit Drainage Sampling) of Attachment G.6 was revised to reflect the placement of the seventeen storage structures on Pad 1 (discussed above). To remain consistent with other figure updates, additional changes were made to this figure to show the boundaries and associated structures for Pad 3, Pad

10, and Pad 9. The structures associated with the figure change are not associated with the permitted unit, and they are not used to manage hazardous waste.

Attachment G.6 (Technical Area 54, Area G, Pad 1, Outdoor Container Storage Unit Closure Plan), Section 2.0 was revised to include a discussion of the placement of seventeen storage structures on Pad 1. The language that was added to Section 2.0 is as follows: "A total of 17 transportainers and storage sheds, which are used for the storage of tools and equipment, are also located on the permitted unit. These structures are situated on the permitted unit as support structures and, according to the Facility Operating Record, they have not been used to store hazardous waste."

Pad 10

Figure 31 (Technical Area (TA)-54, Area G, Pad 10) of Attachment N and Figure G.11-1 (Technical Area 54, Area G, Pad 10 Outdoor Container Storage Unit Sampling Grid and Additional Sampling Locations) of Attachment G.11 were revised to remove storage trailer TA54-1059, which was relocated to Pad 1 to serve as a storage structure. Other revisions to Figure 31 and Figure G.11-1 include the addition of three support structures (TA54-484 and two additional storage trailers), which were moved to the Pad to serve as storage for equipment and supplies. These structures, which are currently located on the south east corner of Pad 10, are not associated with the permitted unit and are not used to manage hazardous waste. Other changes to the figures were incorporated for the units surrounding TA-54, Area G, Pad 10 container storage unit as appropriate and described within this permit modification.

Attachment G.11 (Technical Area 54, Area G, Pad 10, Outdoor Container Storage Unit Closure Plan), Section 2.0 was revised to remove the discussion of Storage Shed TA54-1059. As mentioned above, storage shed TA54-1059 was removed from Pad 10 and relocated to Pad 1. Attachment G.11 was also revised to include a discussion of storage trailer (54-484) and the two additional support structures that were moved to the south east corner of Pad 10. The following language was added to Attachment G.11: "Additional support structures, TA54-484 and two storage trailers, serve as storage for supplies and equipment."

Pad 9

Figure 28 (Technical Area (TA)-54 Area G, Pad 9, (TWISP Domes 229, 230, 231 & 232)) of Attachment N and Figure G.10-1 (Technical Area 54, Area G, Pad 9 Outdoor Container Storage Unit) of Attachment G.10 were revised to remove storage shed 574. This structure, which was relocated to Pad 1 to serve as a storage structure, is not associated with Permit activities or the management of hazardous waste. An additional change was made to Figure G.10-1 to correct typographical errors in the figure's title. The title has been revised from "Figure G.10-1: Techincal Area G, Pad 9 Outdoor Container Storage Unit Grid Sampling and Additional

Sampling Locations" to "Figure G.10-1: Technical Area 54, Area G, Pad 9 Outdoor Container Storage Unit Grid Sampling and Additional Sampling Locations."

Attachment G.10 (Technical Area 54, Area G, Pad 9 Outdoor Container Storage Unit Closure Plan), Section 2.0 and Table G.10-6 were revised to remove the discussion of Storage Shed 574. As mentioned above, Storage Shed 574 was removed from Pad 9 and relocated to Pad 1.

Building 33

Figure 35 (Technical Area (TA)-54 Area G, Building 33) of Attachment N and Figure G.14-1 (Technical Area 54, Area G, Building 33, Indoor Container Storage Unit Grid Sampling and Additional Sampling Locations) of Attachment G.14 were revised to remove structure 377. This structure, which was relocated to Pad 1 to serve as a storage structure, is not associated with Permit activities or the management of hazardous waste.

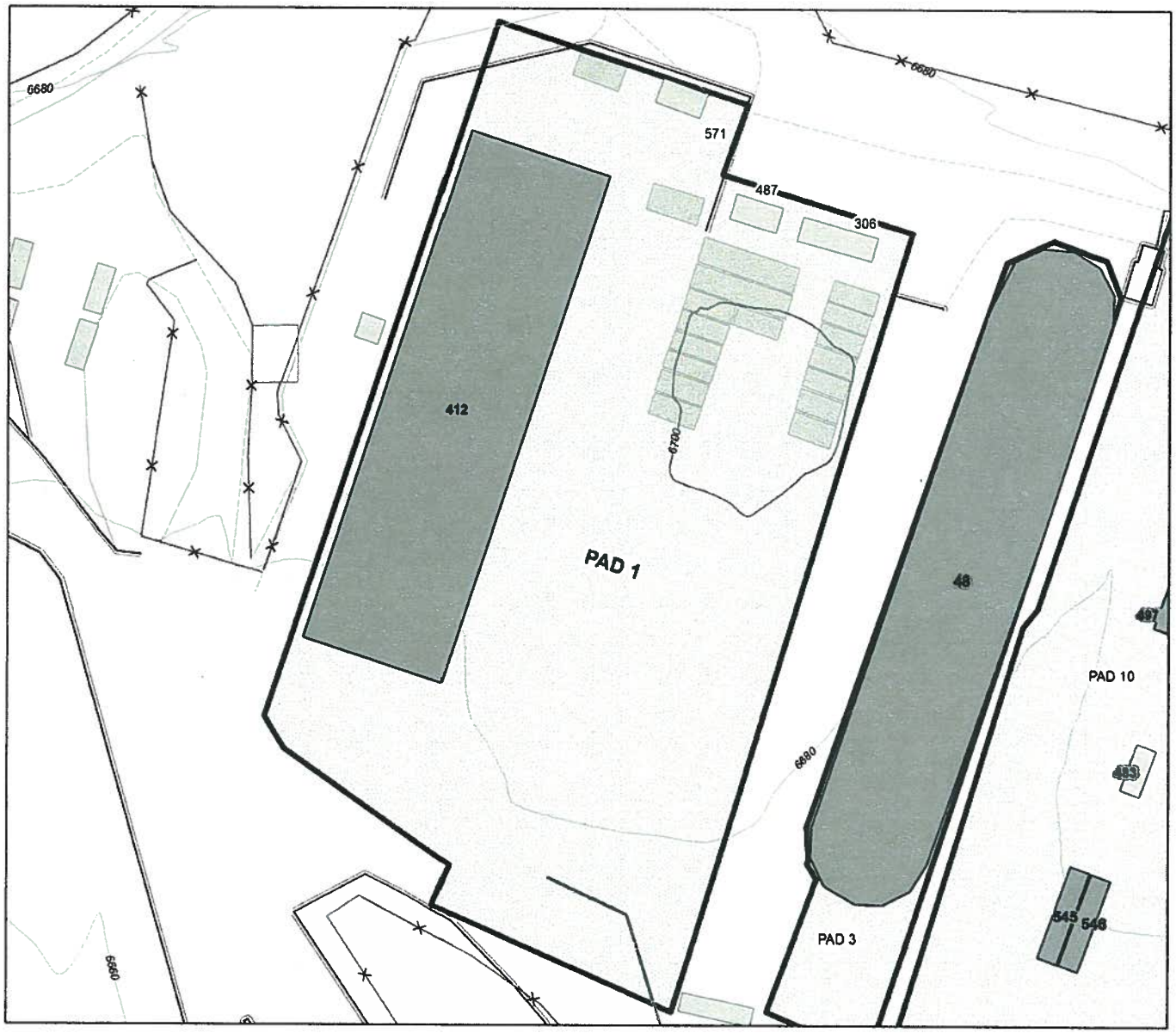
Technical Area 54, Area G, Container Storage Units

Figure 27 (Technical Area 54, Area G, Container Storage Units) of Attachment N was revised to reflect all of the changes discussed above and remain consistent with other figure updates. The changes to Figure 27 are as follows:

- On Pad 1, seventeen support structures were moved to the Pad. These structures will be used to store equipment and tools; they are not associated with the permitted unit and they will not be used to manage hazardous waste.
- On Pad 10, storage trailer TA54-1059 was removed and relocated to Pad 1. Storage trailer (54-484) and two additional support structures, which will be used to store equipment and supplies, were moved to the south east corner of Pad 10. These structures are not associated with the permitted unit and are not used to manage hazardous waste.
- On Pad 9, storage shed 574 was removed and relocated to Pad 1.
- Near Building 33, storage trailer 377 was removed and relocated to Pad 1.

Attachment 1

Pages of the replacement figures for Attachments N, G.6, G.10, G.11, and G.14 and text revisions for Attachments G.6, G.10, and G.11



Legend

Buildings/Structures
(not associated with the permitted unit)

RCRA Waste Management Units (RWMU) Category

RWMU

Structure

Fire Protection Drain Lines

Contours, 100 ft

Contours, 20 ft

Roads, paved

Roads, dirt

Fences

Feet
0 25 50 100

0 4.75 9.5 19
Meters

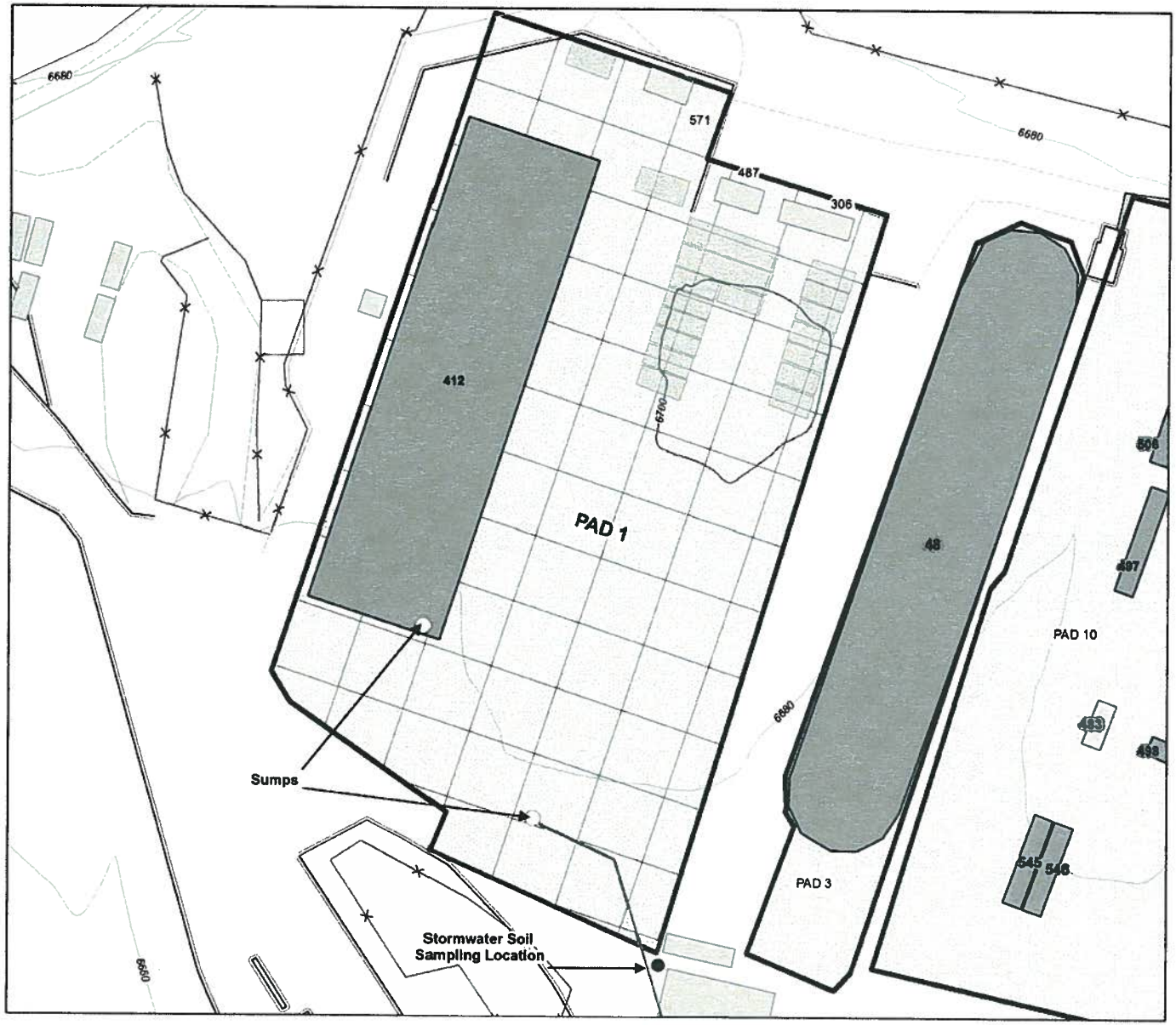
N

Map Produced by Ben Sutter, ADESH-OIO.
Date: January 11, 2016.
Map Number 16-0002-01-Pad1-General

NAD 1983 StatePlane New Mexico Central FIPS 3002 (US Feet)

DISCLAIMER: This map was created for work processes associated with the LANL Hazardous Waste Facility Permit. All other uses for this map should be confirmed with the LANL, ENV Division, Water Quality & RCRA.

Figure 29: TA-54, Area G, Pad 1



Permitted Unit Soil Sampling Grid

Legend

- Buildings/Structures (not associated with the permitted unit)
- RCRA Waste Management Units (RWMU) Category
  - RWMU
  - Structure
- Sample grid (cell size = 900 sqft)
- Additional Sampling Locations
- Sumps
- Fire Protection Drain Lines
- Contours, 100 ft
- Contours, 20 ft
- Roads, paved
- Roads, dirt
- Fences

Feet: 0 25 50 100

Meters: 0 4.75 9.5 19

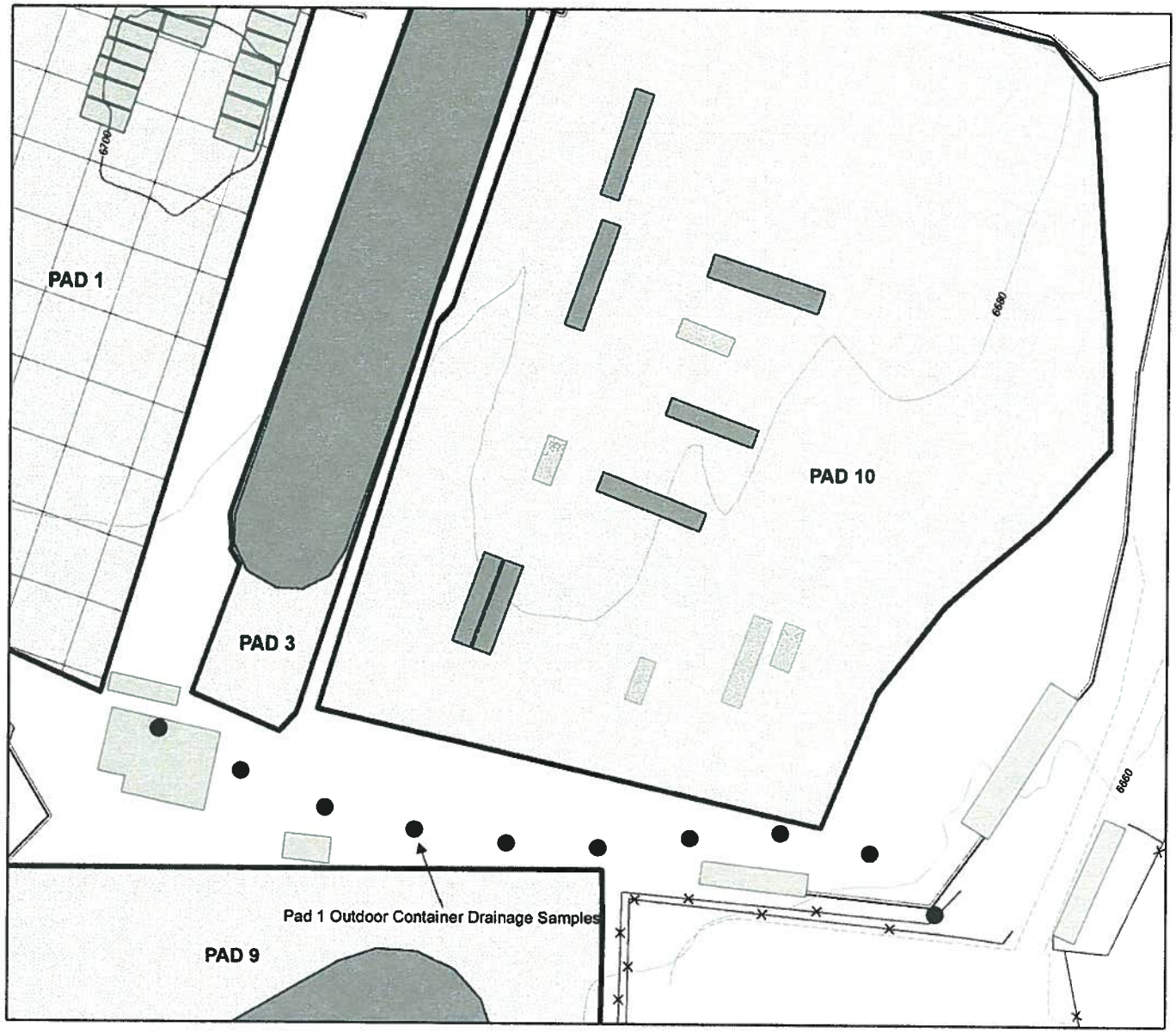
N

Map Produced by Ben Sutter, ADESH-OIO.
Date: January 12, 2016.
Map Number 16-0002-03-Pad1

NAD 1983 StatePlane New Mexico Central FIPS 3002 (US Feet)

DISCLAIMER: This map was created for work processes associated with the LANL Hazardous Waste Facility Permit. All other uses for this map should be confirmed with the LANL, ENV Division, Water Quality & RCRA.

Figure G.6-1: Technical Area 54, Area G, Pad 1 Outdoor Container Storage Unit Grid Sampling Locations



Permitted Unit Soil Sampling

Legend

- Buildings/Structures (not associated with the permitted unit)
- RCRA Waste Management Units (RWMU) Category
  - RWMU
  - Structure
- Sample grid (cell size = 900 sqft)
- Fire Protection Drain Lines
- Contours, 100 ft
- Contours, 20 ft
- Roads, paved
- Roads, dirt
- Fences
- Pad 1 Outdoor Container Drainage Samples

Feet
0 25 50 100

0 4 8 16
Meters

N

Map Produced by Ben Sutter, ADESH-OIO
Date: January 12, 2016.
Map Number 16-0002-02-Pad1-DrainageSampling

NAD 1983 StatePlane New Mexico Central FIPS 3002 (US Feet)

DISCLAIMER This map was created for work processes associated with the LANL Hazardous Waste Facility Permit. All other uses for this map should be confirmed with the LANL ENV Division, Water Quality & RCRA.

Figure G.6-2: Technical Area 54, Area G, Pad 1 Outdoor Container Storage Unit Drainage Sampling

ATTACHMENT G.6
TECHNICAL AREA 54, AREA G, PAD 1
OUTDOOR CONTAINER STORAGE UNIT
CLOSURE PLAN

1.0 INTRODUCTION

This closure plan describes the activities necessary to close the outdoor hazardous waste container storage unit at Technical Area (TA)-54, Area G, Pad 1 at the Los Alamos National Laboratory (Facility), hereinafter referred to as the permitted unit. The information provided in this closure plan addresses the closure requirements specified in Permit Part 9 and the Code of Federal Regulations (CFR), Title 40, Part 264, Subparts G and I for hazardous waste management units operated at the Facility under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act.

Until closure is complete and has been certified in accordance with Permit Section 9.5, a copy of the approved closure plan or the hazardous waste facility permit containing the plan, any approved revisions to the plan, and closure activity documentation associated with the closure will be on file with hazardous waste compliance personnel at the Facility and at the U.S. Department of Energy (DOE) Los Alamos Site Office. Prior to closure of the permitted unit, this closure plan may be amended in accordance with Permit Section 9.4.8 to provide updated sampling and analysis plans and to incorporate updated decontamination technologies. Amended closure plans shall be submitted to the New Mexico Environment Department (Department) for approval prior to implementing closure activities.

2.0 DESCRIPTION OF UNIT TO BE CLOSED

A description of the permitted unit can be found in Permit Attachment A (*Technical Area Unit Descriptions*). This section of the closure plan provides a description of the permitted unit which is located in the north-eastern portion of Area G and is comprised of an asphalt pad with the structure (Building 412, the Decontamination and Volume Reduction System (DVRS)) situated on it.

The irregularly-shaped asphalt pad is approximately 358 feet (ft) long and 213 ft wide or approximately 76,000 square feet. The pad, which is sloped 1% to 1.5% to the south and south-east for drainage, consists of a four to six inch (in) layer of asphalt over the underlying base course overlying fill (minimum six inches of tuff). The pad has one structure associated with it, Building 412 (DVRS). Storage of mixed waste occurs on the Pad and in Building 412.

Dome 226, which was decommissioned in October 2009, was located on the eastern portion of the permitted unit. The dome was approximately 286 ft long and 89 ft wide, was built of an aluminum framework of trusses covered with tension-fitted ultraviolet resistant, fire-retardant coated, polyester fabric anchored with bolts to the pad's concrete ring wall and had a surface area of about 22,300 square ft. The interior floor perimeter of the dome was surrounded with a 6-inch-high, 6-inch-wide asphalt curb and was equipped with personnel doors and a roll-up door on the south end for vehicle access. A ramp was located at the vehicle entrance to the dome, which allowed vehicles and container handling equipment to pass safely over the interior curb which prevented run-on into the dome. At the southern end of the dome was a drain connecting to the recessed sump in Pad 9's Dome 229. This fire protection drain system consists of a 10 in. line running southeast from where Dome 226 was located with secondary connecting drains from Domes 232 and 231. The purpose of this drain system was to provide additional fire water collection capacity in the event of an emergency. The sump and drain have been plugged to prevent storm water from entering the system at the drainage point. Building 412 is a one story building that is approximately 220 ft long by 60 ft wide or 13,200 square ft. This building is currently used for storage and volume reduction of bulky mixed waste. It consists of two structures: an internal primary confinement structure that houses mixed waste processing operations; and an external confinement building, which contains the primary confinement structure. The building itself provides protection from the elements and a temperature-controlled space for the internal structures and associated process equipment. There are roll-up vehicle-access loading doors on the north and south ends of the building and personnel access doors on the north, east, and south for support of operations. The floor and foundation

of the building are concrete and the floor is painted with an epoxy sealant. The concrete slab is above grade to direct potential run-on away from the building. The floor in the building is sloped to a sump that has a grating cover to provide traction and a level working surface.

The primary confinement structure is housed entirely within the building and consists of interconnected enclosures. The primary confinement is approximately 150 ft long by 50 ft wide by 16 ft high and sits directly on the sealed concrete floor. The primary confinement interlocks in a self supporting steel framework that can be assembled into multiple configurations. It is equipped with both large roll-up doors so that personnel, equipment, and material can access the primary confinement and move from one enclosure to the next. Equipment in the enclosures includes gloveboxes, dismantling tools (*e.g.*, power saws, hammers, pry bars), shearing and bailing equipment. Building 412 contains fire protection piping as well as heating and ventilation ducting.

The permitted unit has been used for the storage of both liquid and non-liquid mixed waste and has stored the following waste types: solidified inorganic solids; leached process residues; salts and cement paste; ash; dewatered aqueous sludge; chemical treatment sludge; soils; combustible debris (*e.g.*, plastics, rubber, laboratory trash, building debris); and heterogeneous debris.

Permit Part 3 (*Storage in Containers*), Permit Attachment A (*Technical Area Unit Descriptions*), Permit Attachment B (*Part A Application*), and Permit Attachment C (*Waste Analysis Plan*) include information about hazardous waste management procedures and hazardous waste constituents stored at the permitted unit.

A total of 17 transportainers and storage sheds, which are used for the storage of tools and equipment, are also located on the permitted unit. These structures are situated on the permitted unit as support structures and, according to the Facility Operating Record, they have not been used to store hazardous waste.

3.0 ESTIMATE OF MAXIMUM WASTE STORED

Approximately 1,458,500 gallons of hazardous waste has been stored at the permitted unit to date. Throughout the life of this Permit, it is estimated that an additional 1,760,000 gallons of hazardous waste will be stored.

4.0 GENERAL CLOSURE REQUIREMENTS

4.1 Closure Performance Standards

As required by Permit Section 9.2, the permitted unit will be closed to meet the following performance standards:

a. remove all hazardous waste residues and hazardous constituents; and

b. ensure contaminated media do not contain concentrations of hazardous constituents greater than the clean-up levels established in accordance with Permit Sections 11.4 and 11.5. For soils the cleanup levels shall be established based on residential use. The Permittees must also demonstrate that there is no potential to contaminate groundwater.

If the Permittees are unable to achieve either of the clean closure standards above, they must:

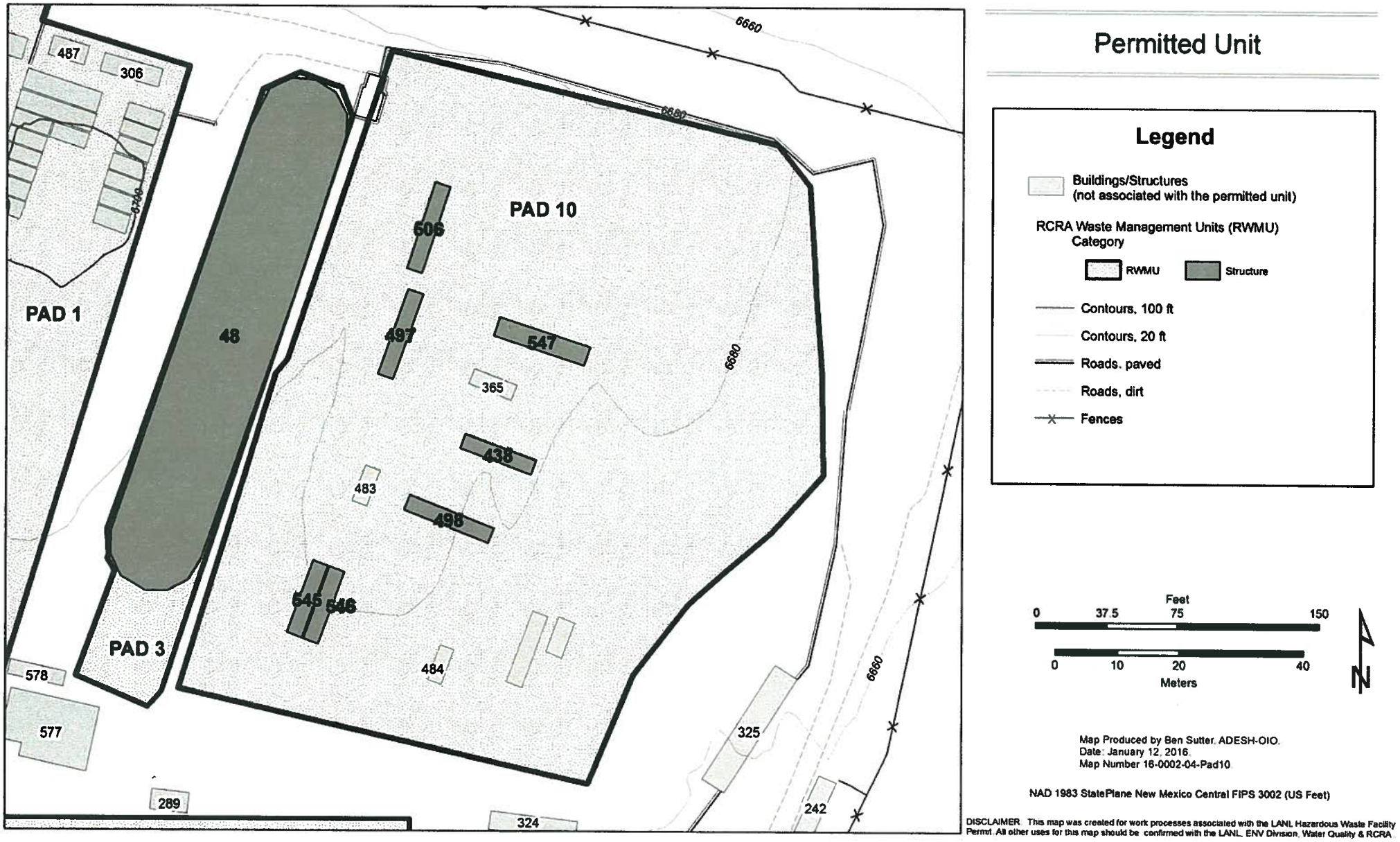


Figure 31: TA-54, Area G, Pad 10

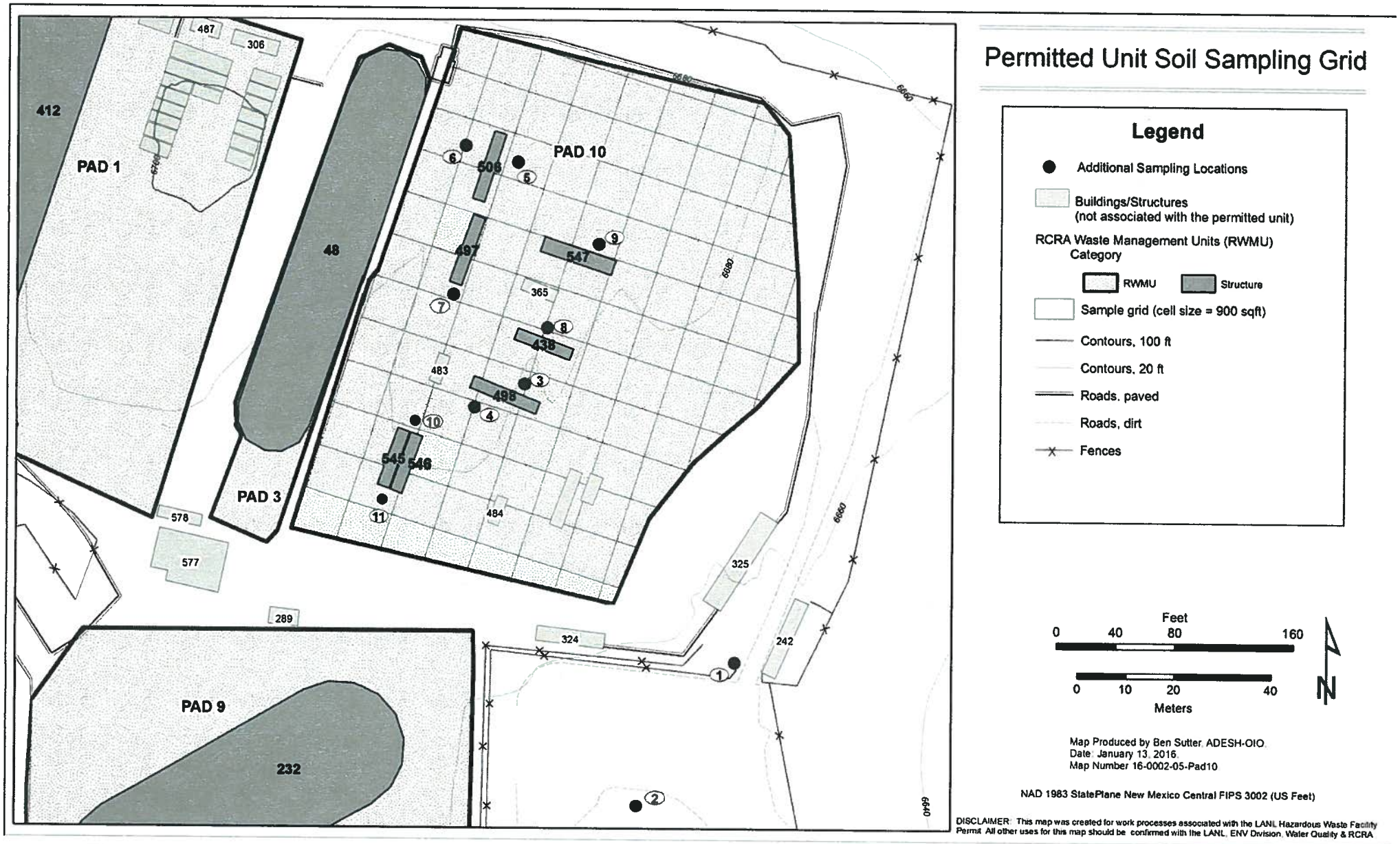


Figure G.11-1: Technical Area 54, Area G, Pad 10 Outdoor Container Storage Unit Sampling Grid and Additional Sampling Locations

ATTACHMENT G.11
TECHNICAL AREA 54, AREA G, PAD 10
OUTDOOR CONTAINER STORAGE UNIT
CLOSURE PLAN

1.0 INTRODUCTION

This closure plan describes the activities necessary to close the outdoor hazardous waste container storage unit at Technical Area (TA)-54, Area G, Pad 10 at the Los Alamos National Laboratory (Facility), hereinafter referred to as the permitted unit. The information provided in this closure plan addresses the closure requirements specified in Permit Part 9 and the Code of Federal Regulations (CFR), Title 40, Part 264, Subparts G and I for hazardous waste management units operated at the Facility under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act.

Until closure is complete and has been certified in accordance with Permit Section 9.5, a copy of the approved closure plan or the hazardous waste facility permit containing the plan, any approved revisions to the plan, and closure activity documentation associated with the closure will be on file with hazardous waste compliance personnel at the Facility and at the U.S. Department of Energy (DOE) Los Alamos Site Office. Prior to closure of the permitted unit, this closure plan may be amended in accordance with Permit Section 9.4.8, as necessary and appropriate, to provide updated sampling and analysis plans and to incorporate updated decontamination technologies. Amended closure plans shall be submitted to the New Mexico Environment Department (Department) for approval prior to implementing closure activities.

2.0 DESCRIPTION OF UNIT TO BE CLOSED

A specific description of the permitted unit can be found in Permit Attachment A (*Technical Area Unit Descriptions*). Additional features and equipment located at the permitted unit and not discussed elsewhere within the Permit are described below.

The permitted unit, which is an asphalt pad that measures 350 feet (ft) long and 250 ft wide (approximately 89,600 square ft), is located on the eastern end of Area G. The irregular-shaped, asphalt pad (Pad 10) is 4-6 inches (in.) thick and overlies approximately six inches of underlying base course and overlies about six inches of tuff fill. The permitted unit was constructed in 2003 and covers two previously existing pads (Pads 2 and 4). It is constructed with curbing on the north and partially the east sides and is sloped from approximately 1% to 1.5% to the east and south-east for drainage.

Transuranic waste characterization trailers are situated on the permitted unit and hazardous waste containers are stored near the trailers for staging associated with the waste characterization. Large portions of the permitted unit are also used for storage of feed stock empty drums for the transuranic waste characterization activities. Storage of oversized mixed wastes in transportainers and metal boxes also occurs on the permitted unit. The current hazardous waste storage activities at the permitted unit include the following structures:

TA54-0497, RTR2 - The Real-Time Radiography (RTR) system #2 is designed to provide X-ray examination of the contents of a waste drum. The unit has been located on Pad 10 in support of the DOE Carlsbad Central Characterization Project (CCP) operations.

TA54-0498, LANL HENC - The High-Efficiency Neutron Counter (HENC) is designed to provide a passive neutron and gamma measurement of transuranic waste in 55-gallon containers. The HENC supported the Transuranic Waste Characterization Project and Project 2010 and subsequently CCP operations from 2004 to the present.

TA54-0506, MCS HENC - The Canberra MCS HENC is functionally identical to the TA-54-0498 HENC and provides passive neutron and gamma assays of 55-gal waste drums.

TA 54-0547, Super High Efficiency Neutron Coincidence (SuperHENC) counter - Trailer TA-54-0547 houses a high efficiency neutron counter designed to handle large waste containers. It is designed to provide a passive neutron and gamma measurement of large transuranic waste containers like standard waste boxes. The SuperHENC will support the Facility's Transuranic Waste Characterization Project and Central Characterization Project operations beginning in 2010.

TA54-0545 and 546, Storage trailers - Heated transportainers used for waste container storage and equilibration prior to characterization.

The above structures are used for non-destructive assay (NDA) techniques associated with the radioactive characterization for the Waste Isolation Pilot Plant certification of waste containers or in support of those activities. The characterization provided by the NDA monitoring techniques does not involve opening the waste containers. The other trailers and structures provide: 1) shelter for the radioassay equipment, 2) enclosed areas to stabilize the waste containers being assayed; and 3) external containment for the waste within the structures.

The following structures are situated on the permitted unit as support structures and according to the Facility Operating Record have never stored hazardous waste:

TA54-0365, Office Building, Formerly MTGS - TA54-0365 formerly housed the MTGS. The MTGS was a gamma assay system prototype developed by the Permittees. The instrument was salvaged in 2007 and the trailer was converted to office space.

TA54-0483, Source Storage Trailer - TA54-0483 serves as a storage area for calibration sources needed by the NDA systems.

~~**TA54-1059, Storage Trailer** - TA54-1059 has been used to store miscellaneous NDA equipment, such as container turn-tables and equipment stands.~~

Additional support structures, TA54-484 and two storage trailers, serve as storage for supplies and equipment.

The permitted unit has been used for the storage of mixed waste in solid form with small quantities of liquid form waste since 2004. The hazardous waste stored at the permitted unit has been: solidified inorganic solids; leached process residues; salts and cement paste; ash; dewatered aqueous sludge; chemical treatment sludge; soils; combustible debris (*e.g.*, plastics, rubber, laboratory trash, building debris); and heterogeneous debris.

Permit Part 3 (*Storage in Containers*), Permit Attachment A (*Technical Area Unit Descriptions*), Permit Attachment B (*Part A Application*), and Permit Attachment C (*Waste Analysis Plan*) include additional information about waste management procedures and hazardous waste constituents stored at the permitted unit.

3.0 ESTIMATE OF MAXIMUM WASTE STORED

Approximately 800,000 gallons of hazardous waste has been stored at the permitted unit to date. Throughout the life of this Permit, it is estimated that an additional 1,375,000 gallons of hazardous waste will be stored at the permitted unit.

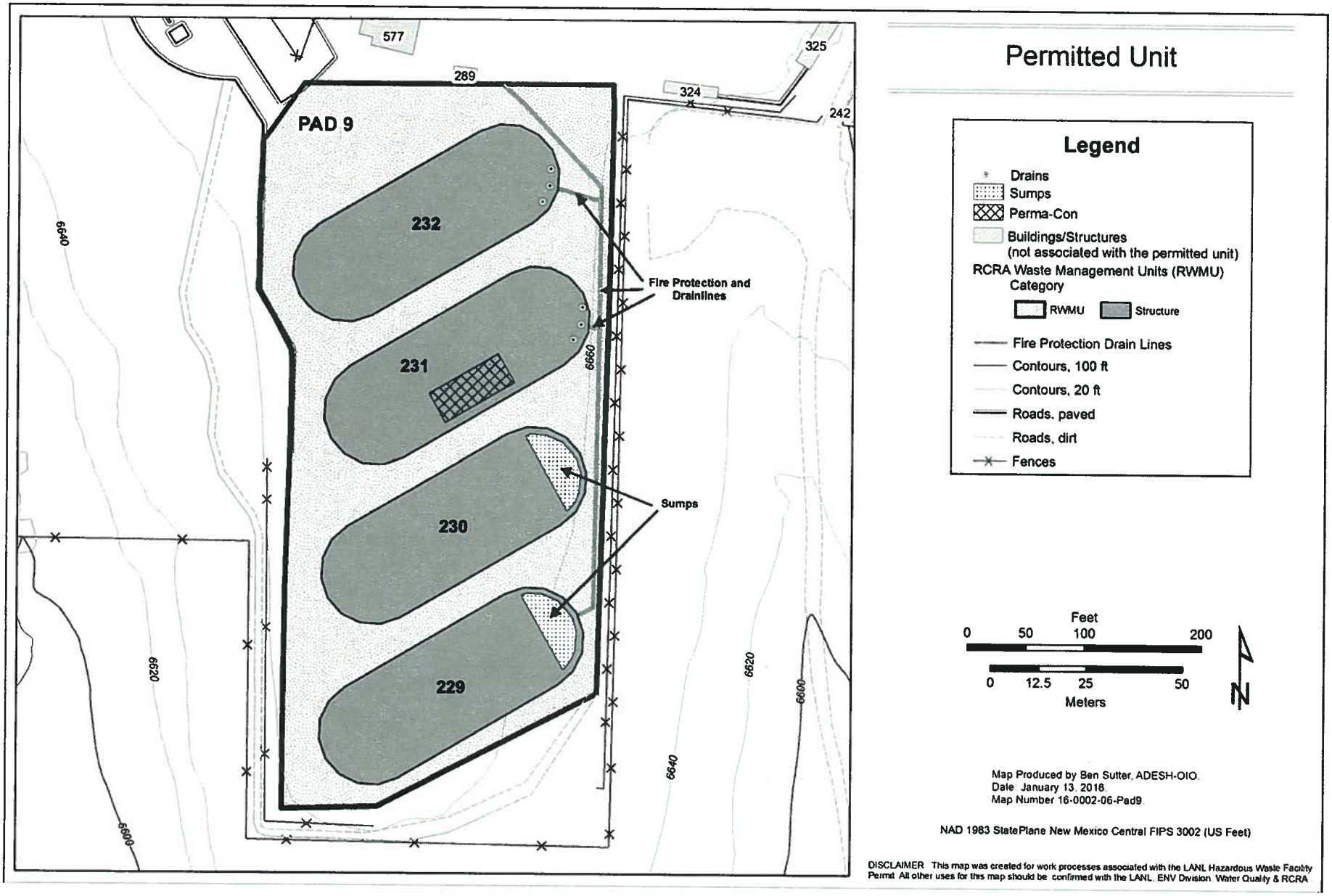


Figure 28: Technical Area (TA)-54, Area G, Pad 9 (TWISP Domes 229, 230, 231 & 232)

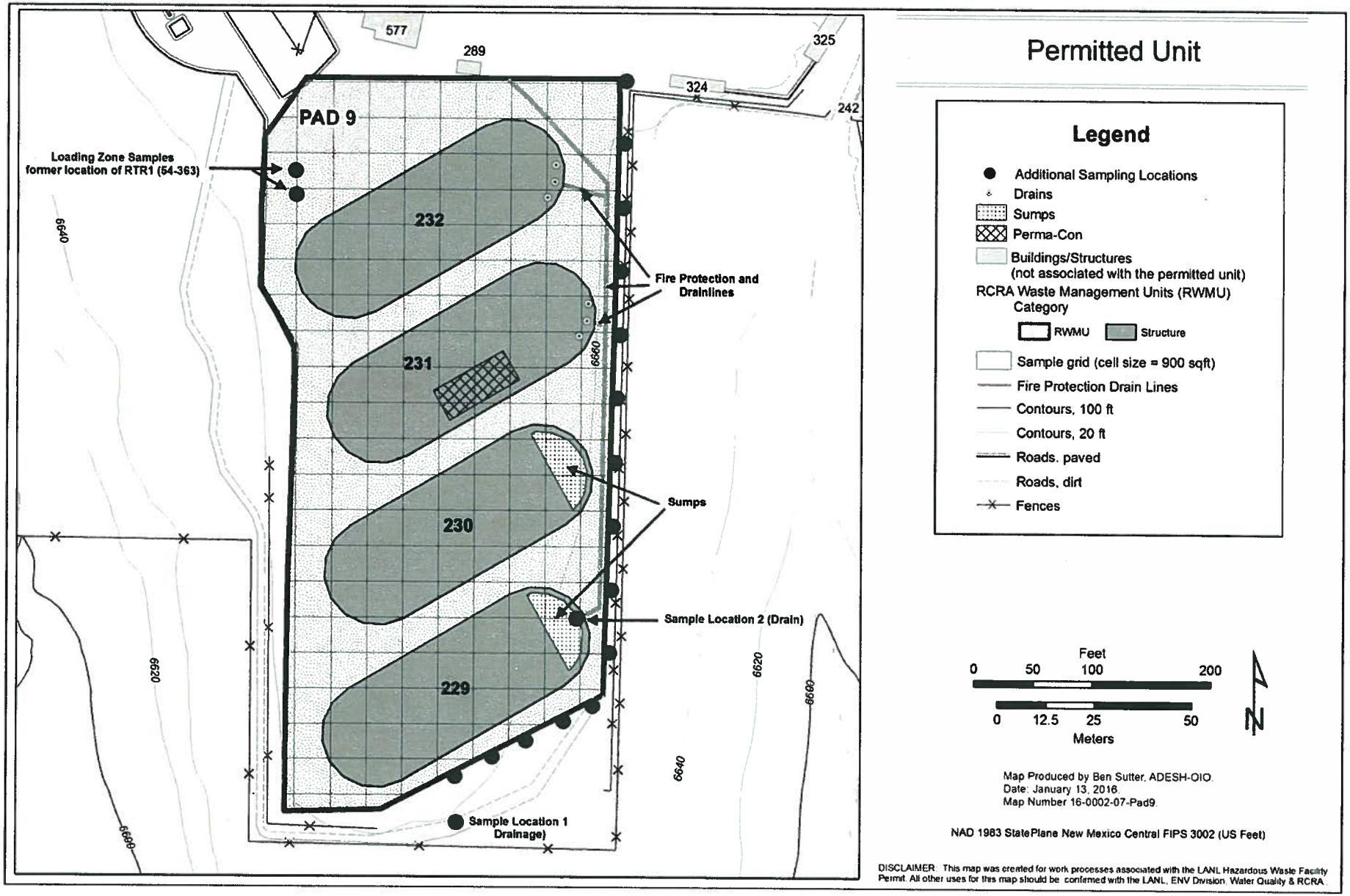


Figure G.10-1: Technical Area 54, Area G, Pad 9 Outdoor Container Storage Unit Grid Sampling and Additional Sampling Locations

ATTACHMENT G.10
TECHNICAL AREA 54, AREA G, PAD 9
OUTDOOR CONTAINER STORAGE UNIT
CLOSURE PLAN

1.0 INTRODUCTION

This closure plan describes the activities necessary to close the outdoor hazardous waste container storage unit at Technical Area (TA)-54, Area G, Pad 9 at the Los Alamos National Laboratory (Facility), hereinafter referred to as the permitted unit. The information provided in this closure plan addresses the closure requirements specified in Permit Part 9 and the Code of Federal Regulations (CFR), Title 40, Part 264, Subparts G and I for hazardous waste management units operated at the Facility under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act.

Until closure is complete and has been certified in accordance with Permit Section 9.5, a copy of the approved closure plan or the hazardous waste facility permit containing the plan, any approved revisions to the plan, and closure activity documentation associated with the closure will be on file with hazardous waste compliance personnel at the Facility and at the U.S. Department of Energy (DOE) Los Alamos Site Office. Prior to closure of the permitted unit, this closure plan may be amended in accordance with Permit Section 9.4.8 to provide updated sampling and analysis plans and to incorporate updated decontamination technologies. Amended closure plans shall be submitted to the New Mexico Environment Department (Department) for approval prior to implementing closure activities.

2.0 DESCRIPTION OF UNIT TO BE CLOSED

A specific description of the permitted unit can be found in Permit Attachment A (*Technical Area Unit Descriptions*). Additional features and equipment located at the permitted unit and not discussed elsewhere within the Permit are described below.

The permitted unit is comprised of an asphalt pad which is located in the eastern end of Area G. It was constructed in 1993, consists of a four to six inch layer of asphalt over the underlying base course overlying fill (minimum six inches of tuff), and measures 570 feet long and 275 feet wide, or approximately 158,000 square feet. It is constructed with curbing on the west and east sides and is sloped from 1% to 1.5% to the east and south-east for drainage. Rainwater flow is directed across the pad by the eastward slope and through small PVC drains spaced at 55 foot intervals in the curbing along the east side of the pad. The slope below the curbing is protected with rock and concrete. Concrete curbing also extends along the west and partially the south sides of the pad and ends at a concrete and rock drainage structure. The remainder of the south side of the pad is uncurbed. Four domes (Domes 229, 230, 231, 232), ~~and one storage shed (574)~~ are situated on it (*see* Figure G.10-1). ~~The one storage shed is not used for the storage of hazardous waste.~~

The permitted unit has stored the following waste types: solidified inorganic solids; leached process residues; salts and cement paste; ash; dewatered aqueous sludge; chemical treatment sludge; soils; combustible debris (*e.g.*, plastics, rubber, laboratory trash, building debris); and heterogeneous debris. Permit Part 3 (*Storage in Containers*), Permit Attachment A (*Technical Area Unit Descriptions*), Permit Attachment B (*Part A Application*), and Permit Attachment C (*Waste Analysis Plan*) include information regarding waste management procedures and hazardous waste constituents stored at the permitted unit.

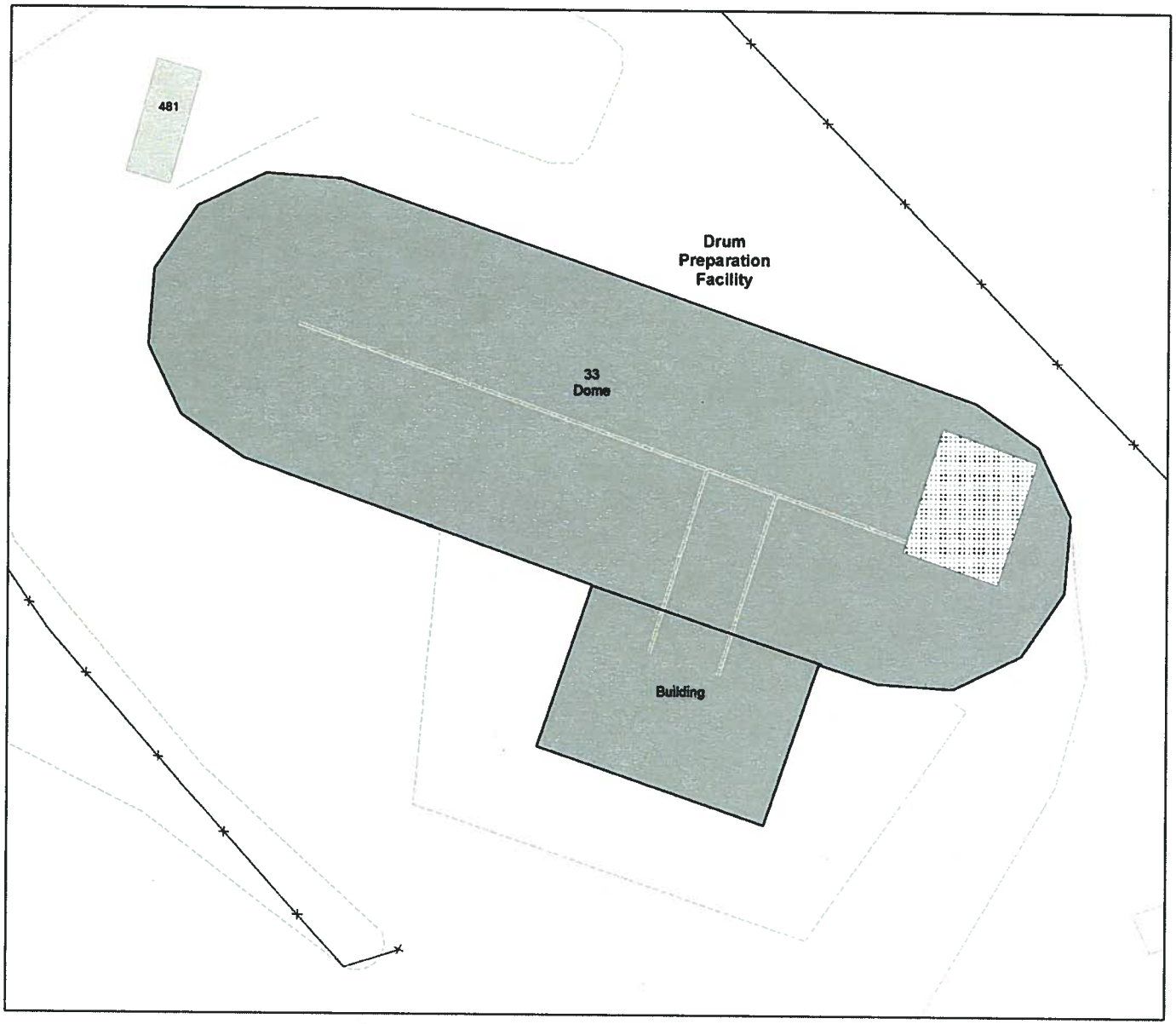
2.1 Permitted Unit Domes

The four storage domes at the permitted unit have been used for the storage of hazardous waste in both liquid and solid form since 1994. The domes (an aluminum framework of trusses covered with tension-fitted ultraviolet resistant, fire-retardant coated, polyester fabric) are 246 feet long by 89 feet wide and cover a surface area of approximately 20,400 square feet each. The base of each dome is secured with anchor bolts to a concrete ring wall that surrounds the interior floor perimeter and provides run-on and

Table G.10-6

List of Equipment at the Technical Area 54, Area G, Pad 9 Outdoor Container Storage Unit

Equipment	Decontamination	Disposal
PermaCon® in Dome 231 and associated equipment	X	
~~Two storage sheds~~	~~X~~	
Equipment and spill kit cabinets	X	
Air pallets	X	
Container pallets	X	X
Communication equipment	X	X
Access barriers and chains	X	X



Legend

- Sumps*
- Buildings/Structures (not associated with the permitted unit)

RCRA Waste Management Units (RWMU) Category

- RWMU
- Structure

- Drain Lines*
- Contours, 100 ft
- Contours, 20 ft
- Roads, paved
- Roads, dirt
- Fences

*Location and size are approximate

Feet
0 12.5 25 50
0 4.25 8.5 17
Meters

N

Map Produced by Ben Sutter, ADESH-OIO
Date: February 4, 2016
Map Number 16-0002-08-Building33_2

NAD 1983 StatePlane New Mexico Central FIPS 3002 (US Feet)

DISCLAIMER: This map was created for work processes associated with the LANL Hazardous Waste Facility Permit. All other uses for this map should be confirmed with the LANL ENV Division, Water Quality & RCRA

Figure 35
Technical Area (TA)-54, Area G, Building 33

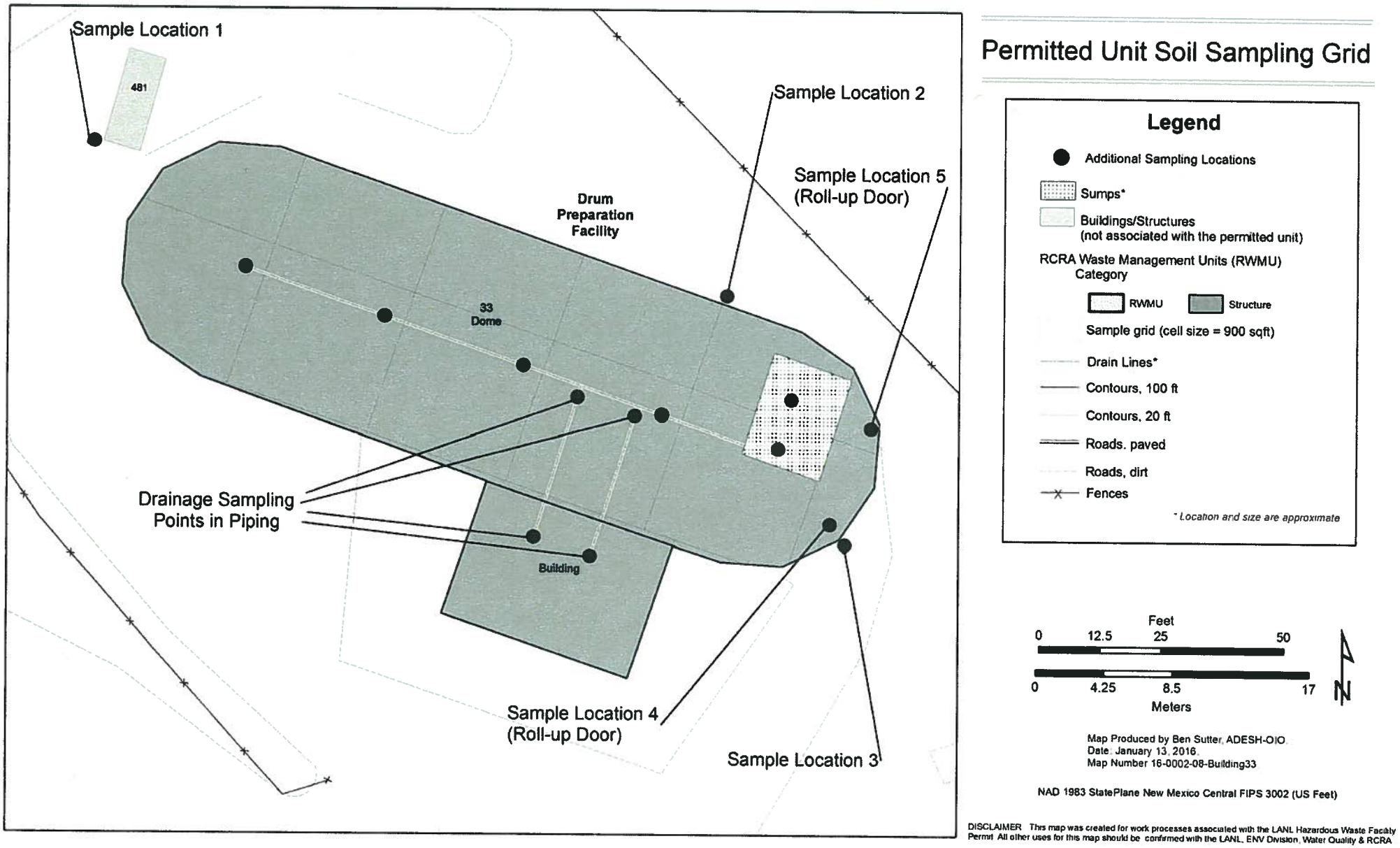


Figure G.14-1: Technical Area 54, Area G, Building 33, Indoor Container Storage Unit Grid Sampling and Additional Sampling Locations

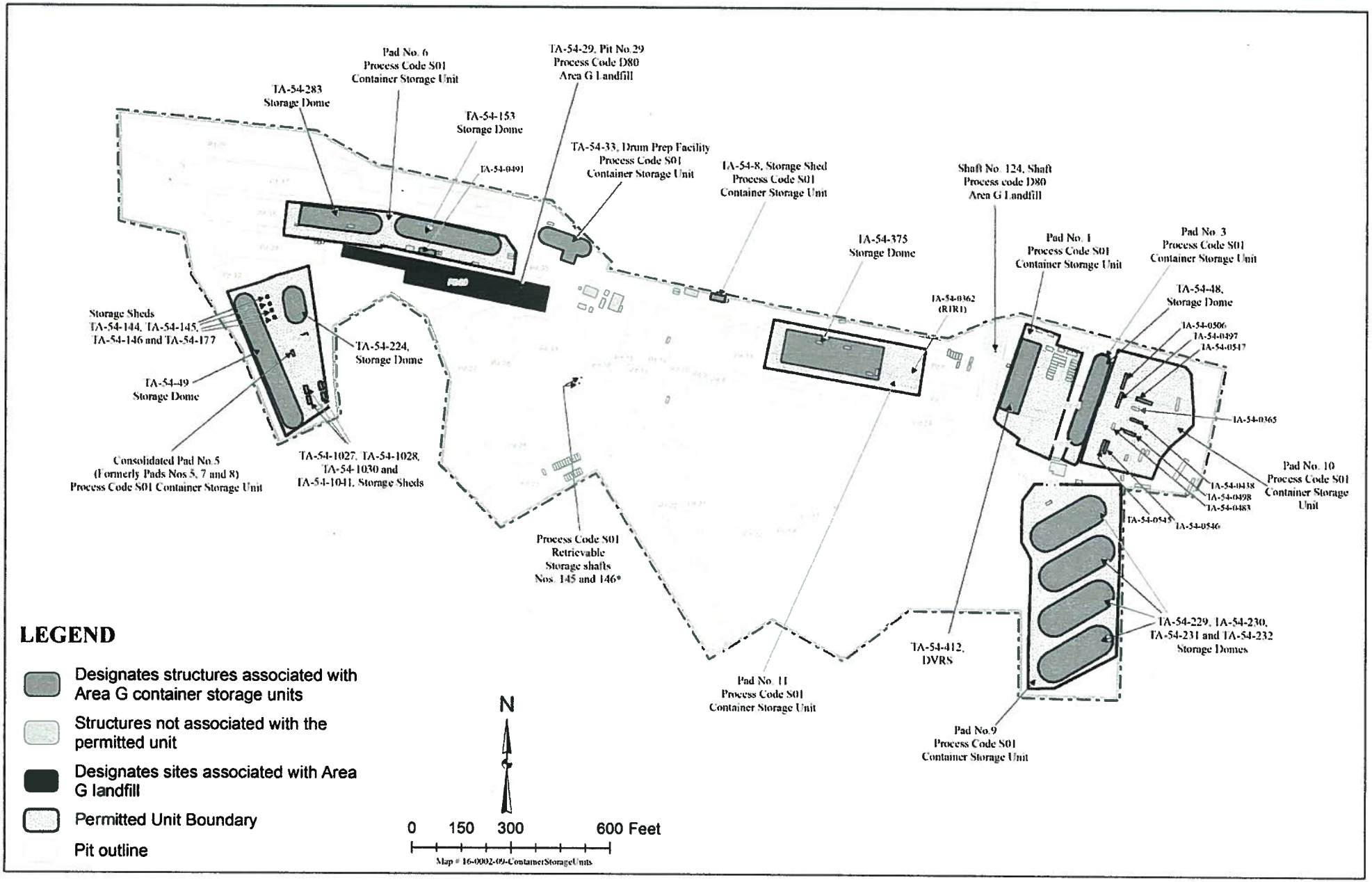


Figure 27: Technical Area 54, Area G, Container Storage Units

Attachment 2

Certification

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3-7-2016

John P. McCann
Acting Division Leader
Environmental Protection and Compliance Division
Los Alamos National Security, LLC

Date Signed

3/9/16

Kimberly Davis Lebak
Manager, Los Alamos Field Office
National Nuclear Security Administration
U.S. Department of Energy
Owner/Operator

Date Signed