DUGWAY PERMIT

MODULE VII

ATTACHMENT 2

HWMU 7
POST-CLOSURE PLAN

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LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

CFR	Code of Federal Regulations
DPG	Dugway Proving Ground
DSHW	Division of Solid and Hazardous Waste
ft	feet
FW	Foster Wheeler Environmental Corporation
GB	isopropyl methylphosphonofloridate
H	mustard
HWMU	Hazardous Waste Management Unit
MWH	MWH Americas, Inc.
PCP	Post-Closure Plan
SWMU	Solid Waste Management Unit
TSDF	Treatment, Storage, and Disposal Facility
UAC	Utah Administrative Code
UDEQ	Utah Department of Environmental Quality
USGS	United States Geological Survey
VX	methyl-phosphonothiolate

1.0. INTRODUCTION

The objectives of this Post-Closure Plan (PCP) are to ensure that Dugway Proving Ground (DPG or Dugway) complies with the Post-Closure Permit issued by the State of Utah in accordance with Title 40 Code of Federal Regulations (CFR) §265.117, with respect to post-closure inspection requirements and tracking and inspections to ensure industrial site use. To meet this objective, this PCP provides detailed information regarding the location, regulatory criteria, and post-closure inspections at Hazardous Waste Management Unit (HWMU) 7. Post-closure requirements will continue for a minimum of 30 years after closure of HWMU 7. The post-closure care period may be extended or shortened, as deemed necessary (40 CFR §265.117(a)(2)).

Technical personnel conducting post-closure activities will be qualified personnel capable of performing the duties identified in this PCP.

In accordance with 40 CFR §270.28 and Utah Administrative Code (UAC) R315-3-2.19, the post-closure permit is required to include specific information for a closed facility. As applicable to HWMU 7, the information requirements include:

1. General description of the facility,
2. Description of security procedures,
3. Copy of general inspection schedule,
4. Preparedness and Prevention Plan,
5. Facility location information (including seismic and flood plain considerations),
6. Closure Plan or Closure Proposal,
7. Certificate of Closure,
8. Topographic map, with specific scale,
9. Summary of groundwater monitoring data, and
10. Identification of uppermost aquifer and interconnected aquifers.

Table 1-1 provides the regulatory citations for the general information requirements and the specific locations in the Attachments or in the PCP where the specific information is presented.

Table 1-1 (Page 1 of 2): Summary of HWMU 7 Post-Closure Information Requirements Under 40 CFR §270.14 and UAC R315-3-2.19 and R315-3-2.5.

Regulation Citation	Requirement Description	Location Requirement is Addressed
40 CFR §270.14(b)(1) UAC R315-3.2.5(b)(1)	General Description of the Facility	Post-Closure Permit, Attachment 1
40 CFR §270.14(b)(4) UAC R315-3.2.5(b)(4)	Description of Security Procedures	Section 3.0
40 CFR §270.14(b)(5) UAC R315-3.2.5(b)(5)	General Inspection Schedule	Section 7.0, Module VII Table VII-3, and Module VII Form A
40 CFR §270.14(b)(6) UAC R315-3.2.5(b)(6)	Preparedness and Prevention	Section 4.0
40 CFR §§270.14(b)(11)(i-ii, v) UAC R315-3.2.5(b)(11) (i-ii, v)	Facility Location Information Applicable seismic standard	Post-Closure Permit, Attachment 1.0 Section 5.0
40 CFR §§270.14(b)(11) (iii-v) UAC R315-3.2.5(b)(11) (iii-v)	Facility Location Information 100-year floodplain	Post-Closure Permit, Attachment 1.0 Section 6.0
40 CFR §270.14(b)(14) UAC R315-3.2.5(b)(14)	Closure Certification and Notification	Appendix A
40 CFR §270.14(b)(16) UAC R315-3.2.5(b)(16)	Post-Closure Cost Estimate	Federal Facilities are exempt from this requirement
40 CFR §270.14(b)(18) UAC R315-3.2.5(b)(18)	Proof of Financial Coverage	Federal Facilities are exempt from this requirement
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19) (i)	Topographic Map Map Scale and Date	Figure 2-2 (1 inch = 2,000 feet [ft])
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19) (ii)	Topographic Map 100-year floodplain area	HWMU 7 is not located within a verified 100-year floodplain area; Figure 2-2
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19) (iii)	Topographic Map Surface waters including intermittent streams	There are no surface waters or intermittent streams within the HWMU 7 area. Figure 2-2
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19) (iv)	Topographic Map Surrounding land uses	HWMU 7 is within a military base. There are no nearby residents in the vicinity of HWMU 7. Figure 2-2
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19) (v)	Topographic Map A wind rose (i.e., prevailing windspeed and direction)	There are no residential populations in the vicinity of HWMU 7. The closest residential area is English Village (approximately 35 miles away). A wind rose is not deemed necessary for HWMU 7.
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19) (vi)	Topographic Map Orientation of Map, North Arrow	Figure 2-2

Table 1-1 (continued-Page 2 of 2): Summary of HWMU 7 Post-Closure Information Requirements Under 40 CFR §270.14 and UAC R315-3-2.19 and R315-3.2.5

Regulation Citation	Requirement Description	Location Requirement is Addressed
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19)(vii)	Topographic Map Legal boundaries of the hazardous waste management facility.	Due to the remote location of HWMU 7, legal boundaries were not established. Figure 2-3
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19)(viii)	Topographic Map Access control, fence, gates	Access control shall be maintained by DPG Base Security due to the remote location of HWMU 7, Figure 2-4
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19)(ix)	Topographic Map Injection and withdrawal wells	There are no injection, withdrawal, or monitoring wells in the vicinity of HWMU 7. Figure2-3
40 CFR §270.14(b)(19) UAC R315-3.2.5(b)(19)(xi)	Topographic Map Barriers for drainage or flood control	There are no drainage barriers or flood control structures on or in the vicinity of HWMU 7. Post-Closure Permit, Figure 2-4
40 CFR §270.14(c) UAC R315-3.2.5(c)(1)	Groundwater Monitoring Information Summary of Groundwater Data	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(2)	Groundwater Monitoring Information Identification of uppermost aquifer	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(3)	Groundwater Monitoring Information Delineation of the Waste Management Area	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(4)	Groundwater Monitoring Information Extent of Plume	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(5)	Groundwater Monitoring Information Detailed Plans/Engineering Report for Proposed Groundwater Program	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(6)(i)	Groundwater Monitoring Information Proposed List of Parameters	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(6)(ii)	Groundwater Monitoring Information Proposed Groundwater Monitoring System	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(6)(iii)	Groundwater Monitoring Information Background Values	Not applicable. No post-closure groundwater monitoring required at HWMU 7.
40 CFR §270.14(c) UAC R315-3.2.5(c)(6)(iv)	Groundwater Monitoring Information A description of the Proposed Sampling	Not applicable. No post-closure groundwater monitoring required at HWMU 7.

2.0. HWMU 7 DESCRIPTION

The following provides a general description of HWMU 7, also known as the Brine Vats West of Granite Peak, at DPG. A general description of the DPG installation can be found in Attachment 1.

2.1. Location and History

HWMU 7 is located in the central portion of DPG, just west of Mica Road Figures 2-1, and 2-2. The portion of the installation west of Granite Peak is used primarily as a test range, but in the past has been used for munitions disposal, decontamination, and other demilitarization activities. The nearest operating technical facilities are the Air Force 777 area, located approximately five miles north of HWMU 7, and the Baker Area located approximately 12 miles east of Granite Peak. A topographic map centered on HWMU 7 is presented as Figure 2-4.

HWMU 7, which operated from 1975 to 1990, consisted of a concrete pad and adjacent earthen ramp. When in operation, the concrete pad supported 20 large, open brine vats that were used for evaporation of wastewater from testing program that took place in the West Desert and at the Tower Grid.

The vats, each approximately 30 ft long and 10 ft in diameter, were fabricated from steel missile silos that had been cut in half radially and mounted on concrete cradles anchored to the concrete pad. The concrete pad, which was constructed in sections in 1975, was approximately 72 ft by 140 ft and was surrounded by an eight by 24-inch wall.

When the vats were in operation, the pad was encircled by an unimproved dirt road that tied into the earthen seven ft high ramp at the southern end of the pad. The general layout of the site is presented in Figure 2-3. The ramp was constructed of native soil derived from a shallow borrow pit excavation 150 ft southeast of the ramp. The brine vats, including brine residues and concrete cradles were removed in 1990 at which time the 24-inch wall on the north side of the pad was pulled down and scattered to the north of the pad.

2.2. Past Operations

Wastewater brought to HWMU 7 included brines and decontamination solutions. Spent brines from neutralization of isopropyl methylphosphonofluoridate (GB or Sarin) were brought to the unit from the West Granite Peak Holding Area (HWMU 192), and brines from the neutralization of GB, O-ethyl-S- (2-iisopropylaminoethyl) methyl phosphonothiolate (VX), and mustard (H) were transported from the Tower Grid Holding Area (HWMU 17). GB was neutralized using heated sodium hydroxide solution; VX and mustard (H) were neutralized using calcium hypochlorite or high-test hypochlorite. Wastewater was also transported to the unit from the Ditto Decontamination Pad (HWMU 38).

The brines were brought to HWMU 7 by trailer-mounted trucks. The solutions were pumped from the trucks into vats at ground level, not gravity fed from trucks parked on the ramp. Based on the available site data, no agent neutralization activities took place at HWMU 7 and no rocket propellant was treated or managed at the unit. The brines evaporated at HWMU 7 contained sodium aluminate, sodium fluoride, sodium isopropyl methyl phosphonate, and excess sodium hydroxide.

During a February 1995 site inspection, a partially buried, open 55-gallon drum was observed in the ground in an upright position in the area east of the concrete pad. Because of its proximity to the pad, the drum may have been associated with the operation or removal action at HWMU 7.

HWMU 7 was one of the 27 sites listed at DPG under the Utah Department of Environmental Quality - Division of Solid and Hazardous Waste (UDEQ-DSHW) Stipulation and Consent Order No. 8909884 (dated September 19, 1990). This Consent Order directed DPG to determine whether hazardous waste management occurred at these sites. This Stipulation and Consent Order was amended in December 22, 1993 and identified HWMU 7 among the sites to be closed.

2.3. Previous Investigations Documentation

The detailed results of previous material, soil, and groundwater sampling, and closure information including the risk assessment are available, for HWMU 7, in the DSHW public documents listed below in Table 2-1.

Table 2-1: Pertinent UDSHW Library Documents Detailing HWMU 7 Investigations

Document Title	Received Date	UDSHW Library No.
Foster Wheeler Environmental Corporation (FW), 1998. Dugway Proving Ground Closure Plan, Module 3, HWMU 7, Final. May. (FW, 1998)	6/24/98	DPG00104
MWH, 2001. Final Interim Measures Implementation Plan for the Environmental Restoration of HWMU 7, Dugway Proving Ground, Dugway, Utah. July. (MWH, 2001)	8/10/01	DPG00231
MWH Americas, Inc. Final Closure Certification for Hazardous Waste Management Unit 7, Dugway Proving Ground, Dugway, Utah. June. 2003 (MWH, 2003)	8/22/03	DPG00366

2.4. Closure Activities

Utah has specific regulations governing the closure and post-closure requirements for interim status/non-notifier hazardous waste treatment, storage and disposal facilities (TSDFs) (UAC R315-7-14; 40 CFR §265.111 by reference). Based on the work performed at HWMU 7 and the risk evaluations presented in the Final Closure Report, the requirements for industrial site use described in R315-101 and Consent Order have been achieved.

The Certification of Closure (Appendix A) certifies that HWMU 7 meets the closure performance standards under UAC R315-7-14 and R315-101 and 40 CFR §265.111 (subpart G) adopted by reference, as follows: (1) minimizes the need for further maintenance, (2) controls, minimizes or eliminates, to extent necessary to protect human health and environment, post closure escape of hazardous waste,

hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere, and (3) complies with closure requirements of this subpart and other applicable requirements. To satisfy the first standard, all wastes have been removed at HWMU 7. All associated structures have been removed or have been approved to remain. No waste remains at HWMU 7 and closure of HWMU 7 has been completed, but low concentrations of contamination remain in soil requiring industrial rather than unrestricted site use.

Approval for the HWMU 7 Final Closure Report (IT, 2003) was received in a letter dated September 15, 2003, from Mr. Dennis R. Downs, Utah Solid and Hazardous Waste Control Board. The Certification of Closure (Appendix A) was verified by the Executive Secretary of the Utah Solid and Hazardous Waste Control Board on October 2, 2003. Appendix A includes a copy of the HWMU 7, Closure Certification signed and stamped by a Utah-licensed Professional Engineer.

The remedial activities performed at HWMU 7 are described in detail in the Final Closure Report.

2.5. Human Health and Ecological Risk Assessment

Human health and ecological risk assessments were conducted and indicated that the remaining residual soil contamination does not pose an unacceptable risk as defined in UAC R315-101. Since the waste has been removed, there is not any potential for escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, surface waters, or to the atmosphere. The cancer risk is less than 1E-04 and the Hazard Index is less than 1.0.

The human and ecological risk assessments are also presented in the *Final Closure Certification for Hazardous Waste Management Unit 7, Dugway Proving Ground, Dugway, Utah. June,* (MWH Americas, Inc. (MWH), 2003)

2.6. Surface Water and Groundwater

The natural drainage of surface water is to the west-southwest based on the topography of the area. There are no distinct natural drainage features evident on the ground at HWMU 7.

Based on the nature and extent of the contamination and removal of all waste as described in the closure report, Post Closure groundwater monitoring is not required at this site.

2.7 Closure Notifications

Federal facilities are exempt from submitting notifications to the local zoning authority as required by 40 CFR §§264.116 and 264.119, which are incorporated by reference in UAC R315-8-7.

3.0. SECURITY REQUIREMENTS

The Permittee shall comply with the following security conditions as applicable to HWMU 7:

1. HWMU 7 is located within a federal, military installation (DPG). As such, the installation is restricted for the common population. DPG's Base Security (Range Control) shall monitor access to HWMU 7.

2. Warnings signs shall not be required, throughout the post-closure care period on the condition that DPG's Base Security (Range Control) continues to monitor access to HWMU 7. DPG shall report to the DSHW any decrease of DPG's Base Security, which could affect the security conditions as applicable to HWMU 7.

3. All security facilities shall be inspected throughout the post-closure care period. The security facilities to be inspected and the frequency of inspection are listed in Table 3.

4. Damaged security facilities shall be noted in the inspection checklist. Repairs shall be completed as soon as practicable after the problem is discovered, in compliance with UAC R3l5-8-2.6(c).

4.0. PREPAREDNESS AND PREVENTION MEASURES

As all wastes and the former appurtenances, including the evaporation vats, concrete cradles and pad, and earthen ramp have been removed from HWMU 7. The DPG Emergency Response and Contingency Plan of this Permit, where applicable to this site, shall be used to announce and respond to emergency conditions.

At a minimum the site inspector should have a radio or phone and a First Aid kit available during inspections.

5.0. SEISMIC STANDARD

HWMU 7 is not located within 200 ft of any active faults. Although Utah is tectonically active, most of the earthquake activity occurs about 55 miles to the east along the Wasatch Range Foothills.

A geologic map completed in a study (1988) by the United States Geological Survey (USGS), *Map of Fault Scarps Formed on Unconsolidated Sediments, Tooele 1°x2° Quadrangle, Northwestern Utah. (Compiled by T.P. Bamhard and R. L. Dodge)*, was used to determine the distribution, relative age, and amount and extent of surface rupture on Quaternary fault scarps, in the area of HWMU 7.

The conclusions of the USGS (1988), study concluded that morphologic and geologic data collected along the fault scarps in the area indicate that all were formed during the later Pleistocene era and there isn't any clear evidence of Holocene surface faulting. Several faults inferred on geophysical evidence are located at DPG; however, there is no evidence of displacement during Holocene time.

6.0. FLOODPLAIN STANDARD

HWMU 7 is not located within a 100-year verified floodplain. The National Flood Insurance Rate Map, identifying the boundary of the 100-year flood, does not include DPG. These are no permanent streams or other surface water bodies on DPG.

Surface water from precipitation flows through well-established drainage channels into the flat plain and evaporates. Like other arid regions, DPG is subject to flash flooding following high-precipitation events. Flash floods have occurred only four times in the history of the installation, in 1944, 1952, 1973, and

1983. The major area affected during flash floods has been the Government Creek drainage channel, which has overflowed and caused minor inundation of roads at Ditto Technical Center.

7.0. POST-CLOSURE INSPECTIONS & REPORTS

7.1. Introduction

This section summarizes the inspections (Table 7-1) and reporting requirements (Table 7-2) for HWMU 7 during the post-closure period. HWMU 7 has been closed under a continued industrial use scenario, which prohibits residential use in the areas formerly occupied by the site. To ensure that the area is not reused or developed for residential purposes, annual site inspections and a biannual report shall be required.

7.2 Annual Inspections

General site inspections of the former HWMU 7 site shall be conducted annually before November 1st, to ensure that the former evaporation pad and earthen ramp area remains under industrial use and to verify the Dugway Dig Permit process as described in Module VII.I has been followed. The frequency of inspections can be modified in accordance with UAC R315-3-4. The specific general post-closure annual site inspection checklist required for HWMU 7 is referenced in Table VII-3 of Module VII and provided in Module VII as Form A (General Post-Closure Site Inspection Checklist, Industrial Closure/Industrial Use Sites). Completed inspection form(s) shall be filed with the DPG Environmental Office. The site shall be visually inspected to ensure the following conditions are maintained at the site:

1. There is no evidence of land use other than for industrial purposes within the former site boundary.

2. That DPG's Base Security (Range Control) continues to monitor access to HWMU 7.

Table 7-1, summarizes the Post-Closure Inspection Schedule for HWMU 7, and lists the items to be inspected and potential problems. Inspection personnel shall note any problems found and shall inform appropriate DPG representatives.

Table 7-1: HWMU 7 Post-Closure Inspection and Monitoring Schedule.

Inspection/Monitoring Item	Method of Documentation	Frequency of Inspection
1) Land use for industrial purposes only. 2) DPG's Base Security (Range Control) continues to monitor access to HWMU 7.	General Post-Closure Site Inspection Checklist for Industrial Use Sites (Module VII, Form A)	Annual inspections shall be conducted no later than November 1st, of each year.

7.3. Inspection Follow-up

Copies of completed site inspection checklists (Module VII, Form A) shall be forwarded to the DPG Environmental Office. The Point-of-Contact for the DPG Environmental Office is as follows:

Environmental Programs Compliance Representative
Dugway Proving Ground Environmental Program Office
Dugway Proving Ground, UT 84022
Telephone: (435) 831-3560

The DPG Environmental Office shall notify the appropriate personnel to implement corrective action as needed.

Corrective action shall be initiated as soon as practical after identifying the problem, or as directed by DPG. If the corrective action requires substantial effort, a technical plan shall be prepared to summarize the problem, the potential impacts, the proposed plan for action, and the time frame in which corrective action shall be implemented as required under this Permit. This plan shall be approved by the Executive Secretary and shall be submitted within 30 days of DPG's decision to implement corrective action.

7.4. Annual Post-Closure Groundwater Report

Post-closure groundwater monitoring is not required at HWMU 7; therefore, HWMU 7 will not be included in the DPG Annual Post-Closure Groundwater Report, in accordance with the requirements of 40 CFR §265.94(a)(2), for HWMUs and Solid Waste Management Units (SWMUs) undergoing post-closure groundwater monitoring.

7.5. Non-Compliance Reporting

The conditions at HWMU 7 are such that the impact to human health and the environment is very unlikely. All wastes and associated structures have been removed from the site. Hazardous wastes are no longer managed or maintained at the site. Nonetheless, if there is any type of non-compliance with any condition of this Permit, notifications shall be submitted per Permit Conditions VII.C.5.

7.6. Biennial Post-Closure Report

In accordance with UAC R315-3-3.1(l)((9), a Biennial Post-Closure Report shall be prepared for all DPG closed HWMUs and SWMUs undergoing post-closure care. Post Closure Reports shall be submitted to DSHW no later then March 1st, of the following year that the report is due. The first Post-Closure reporting year is 2006 for HWMU 7. After this initial period, reporting years shall change to odd numbered years, with subsequent biennial reports due by March 1st of even numbered years, beginning in 2008. Specifically for HWMU 7, the Biennial Post-Closure Report shall include, at a minimum, the following:

1. General site description and conditions; and
2. Inspection records.

Table 7-2: Summary Table of Required Submittals.

Required Submittals	Frequency and Submittal Date
1. Biennial Post-Closure Report	Post Closure Reports shall be submitted to the DSHW no later than March 1st, of the following year that the report is due. Reporting years are even numbered years beginning with 2006 and odd numbered years beginning 2007 for the duration of the Post-Closure Monitoring Period.
2. Anticipated Non-Compliance (VII.C.5.)	30 days advance notice of any change, which may result in non-compliance.
3. 24-hour Notification on information concerning the non-compliance, which may endanger public drinking water supplies or human health or the environment (VII.C.5.).	Orally within 24 hours of discovery noncompliance.
4. Five-day written notification on information concerning the non-compliance, which may endanger public drinking water supplies or human health or the environment. The Executive Secretary may waive the 5-day notice, in favor of a 15-day notice (VII.C.5.)	Within 5 days of discovery
5. Written notification on information concerning the non-compliance, which does not endanger human health or the environment (VII.C.5.).	Submitted with the Biannual Post Closure Report are submitted.

8.0. POST-CLOSURE CERTIFICATION

No later than 60 days after post-closure activities are completed and approved by the Executive Secretary, DPG shall submit a certification to the Board, signed by DPG and an independent professional engineer registered in the State of Utah, stating why post-closure care is no longer needed.

REFERENCES

Dugway RCRA Part B Permit

Foster Wheeler Environmental Corporation (FW), 1998. *Dugway Proving Ground Closure Plan, Module 3, HWMU 7, Final.* May.

MWH Americas, Inc. (MWH), 2003. *Final Closure Certification for Hazardous Waste Management Unit 7, Dugway Proving Ground, Dugway, Utah*. June.

MWH, 2001. *Final Interim Measures Implementation Plan for the Environmental Restoration of HWMU 7, Dugway Proving Ground, Dugway, Utah.* July.

Utah Administrative Code (UAC), Utah Hazardous Waste Management Rules, R315-7 to R315-14, R315-50, and R315-101.

DUGWAY PERMIT

MODULE VII

ATTACHMENT 1

APPENDIX A

HWMU 7

CERTIFICATION OF CLOSURE

CERTIFICATE OF CLOSURE
HWMU 7
Dugway Proving Ground, Utah

This Closure Certification for Hazardous Waste Management Unit (HWMU) 7 at Dugway Proving Ground, Utah has been prepared by MWH Americas, Inc. (MWH) in accordance with the state approved *Final Interim Measures Implementation Plan for the Environmental Restoration of HWMU 7*, and the closure requirements specified in the Utah Administrative Code (UAC) 315-3, 315-7-14, 315-302-3, and the pertinent sections of 40 Code of Federal Regulations 265 for closure of HWMU 7. The requirements of UAC 315-101 form the basis for the risk-based criteria in the closure of HWMU 7.

The signature and seal certify that a licensed professional has reviewed the Closure Certification Report in accordance with the above referenced regulatory requirements.

Michael P. Gronseth, P.E.
Project Manager
Utah License No. 367619

08 SEPTEMBER 2003
Date

LICENSED PROFESSIONAL ENGINEER
No. 367619
MICHAEL
PAUL
GRONSETH
STATE OF UTAH

DUGWAY PERMIT

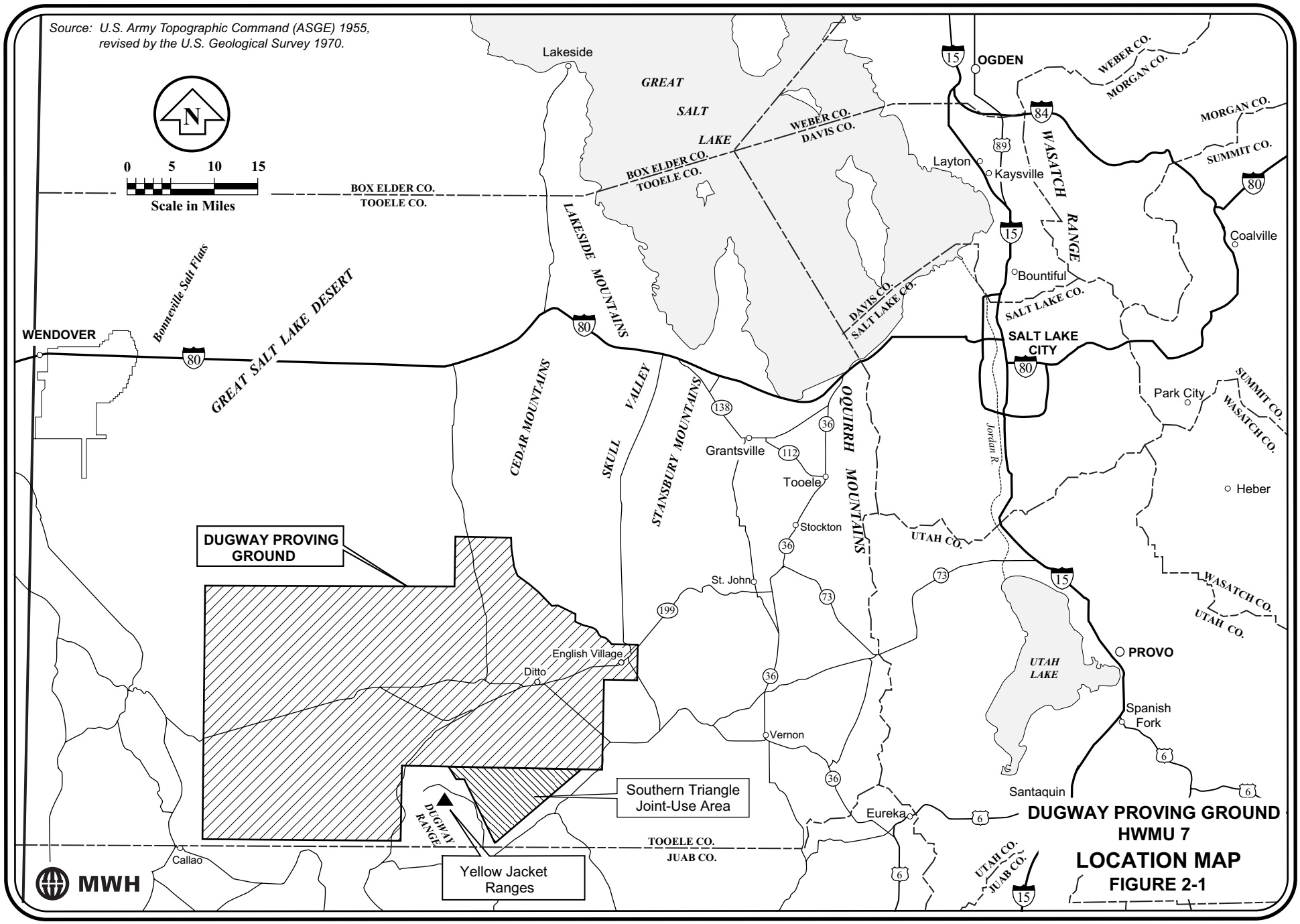
MODULE VII

ATTACHMENT 2

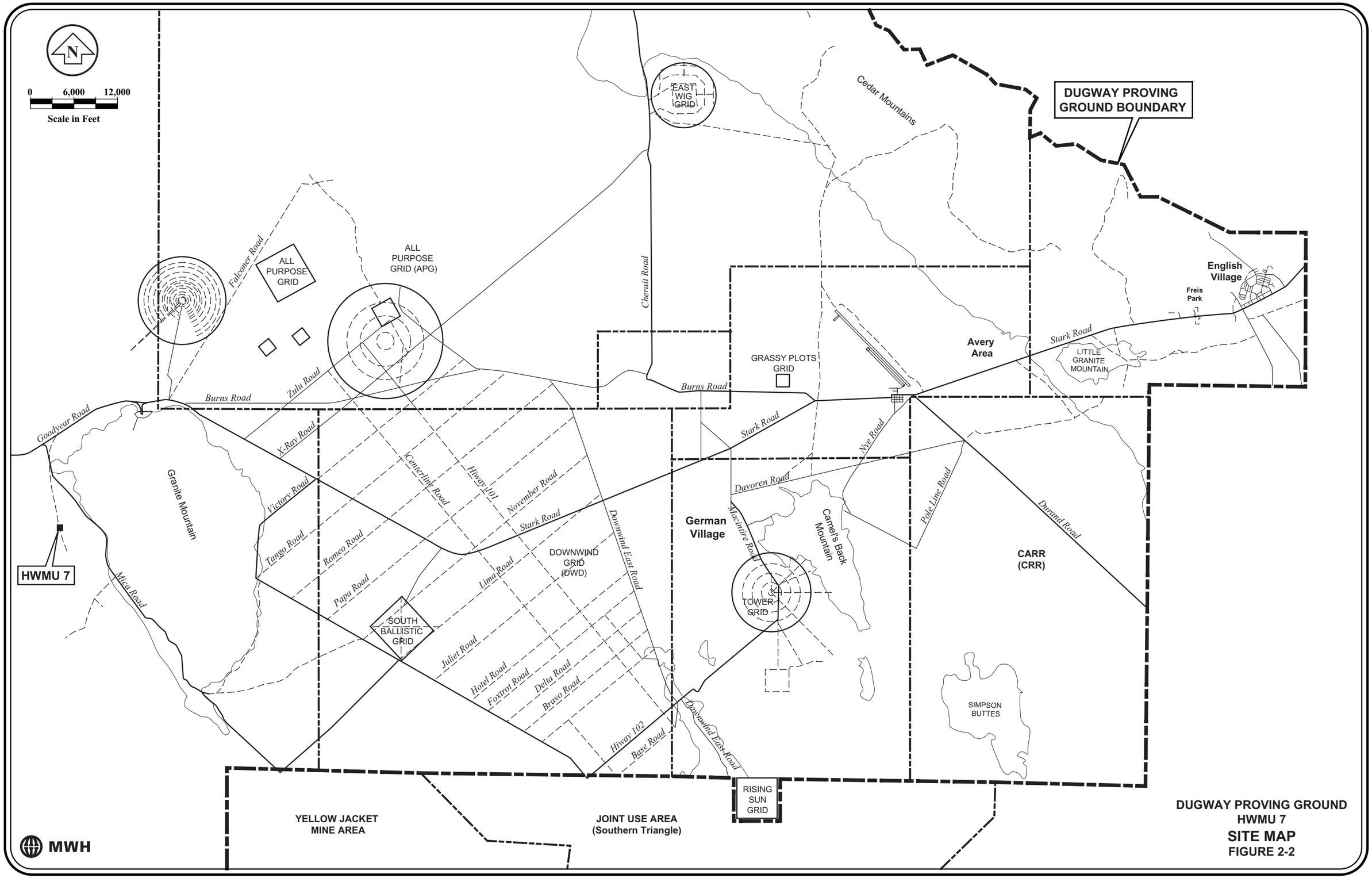
HWMU 7

FIGURES

PROJECT NO. 1450008.041802 10/18/02 SLC

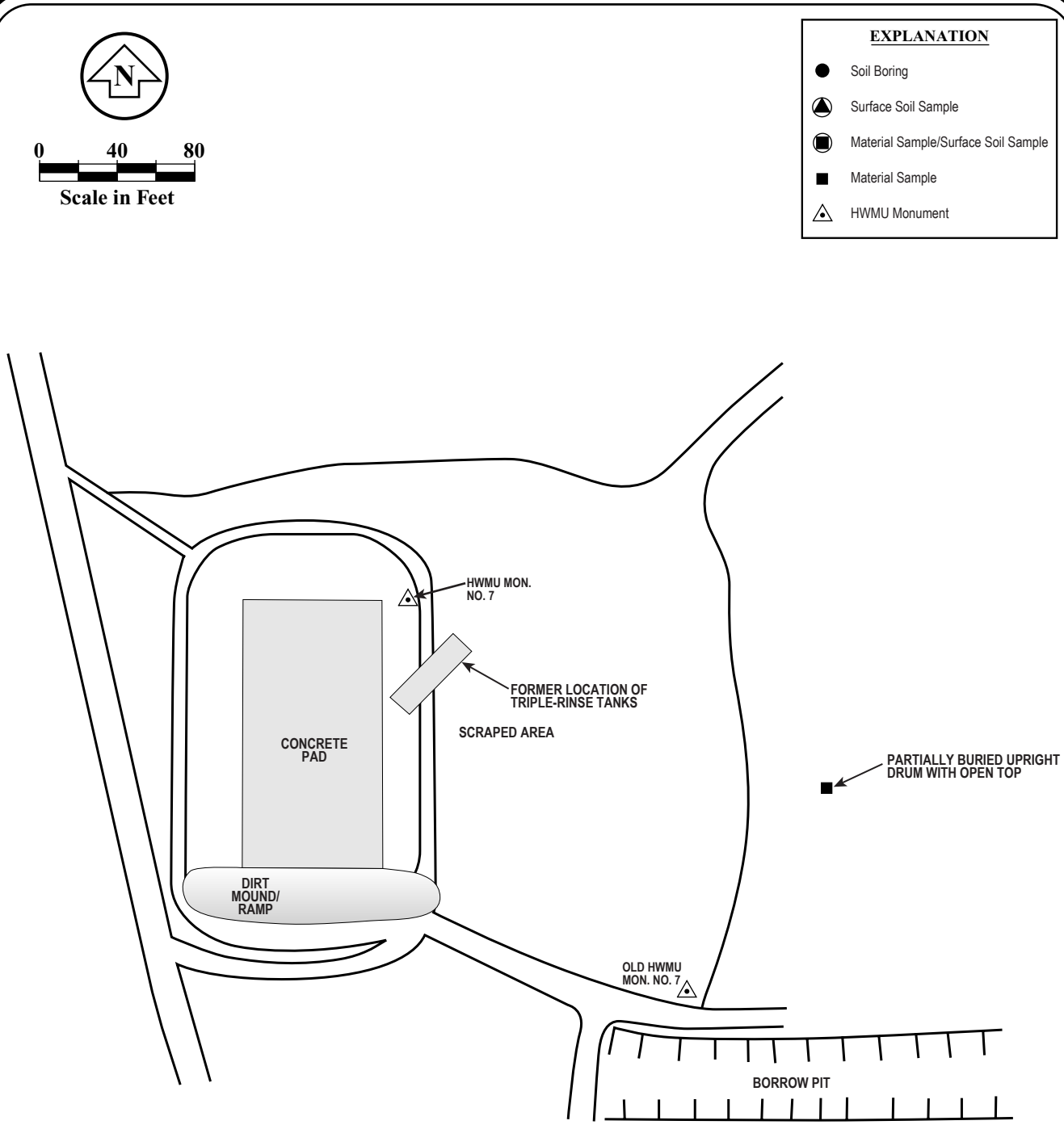


DUGWAY PROVING GROUND
HWMU 7
LOCATION MAP
FIGURE 2-1



PROJECT NO. 1450008.041802 10/17/03 SLC

DUGWAY PROVING GROUND
HWMU 7
SITE MAP
FIGURE 2-2

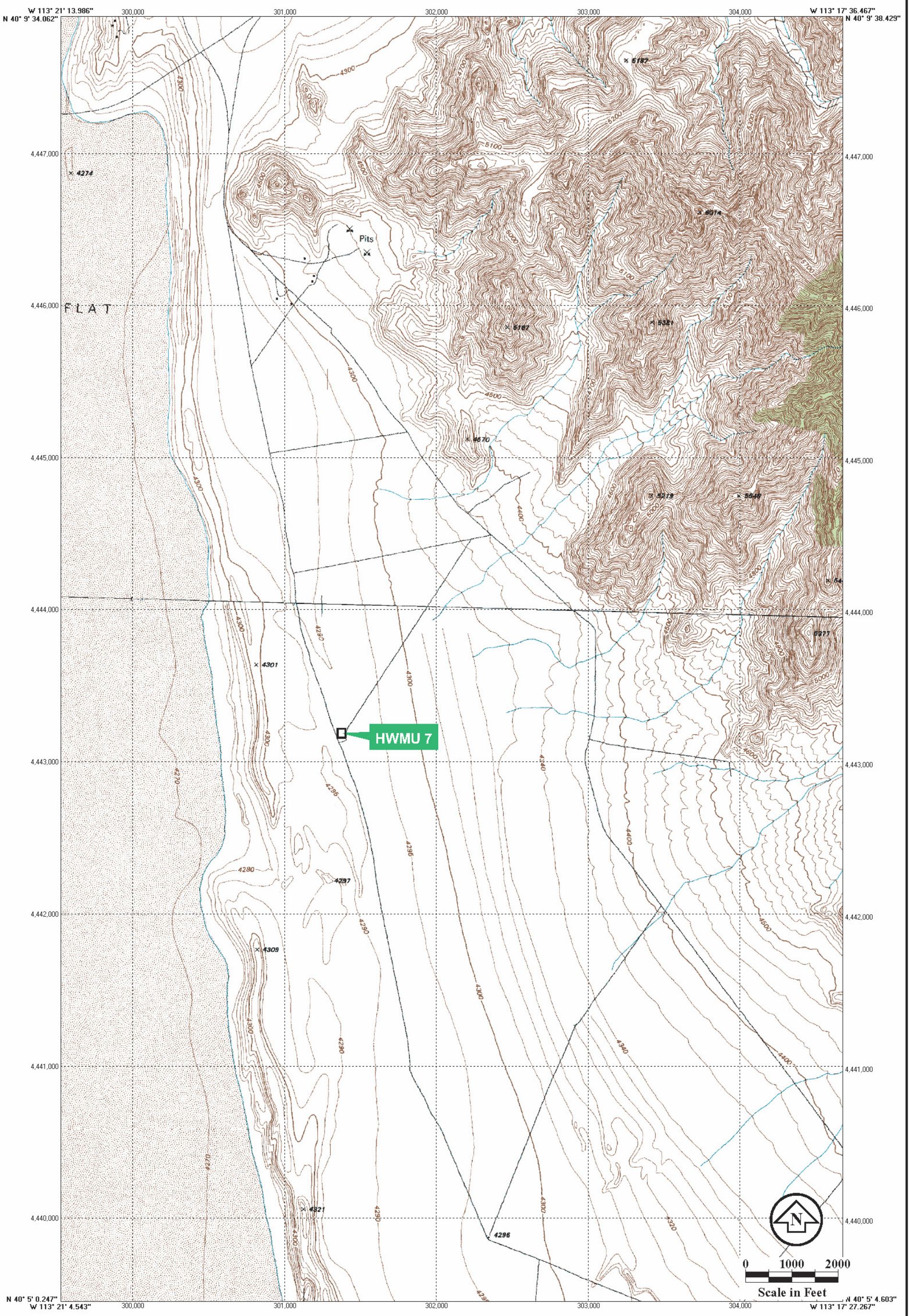


PROJECT NO. 1450008.041802.ai 07/23/02 SLC

MWH

DUGWAY PROVING GROUND
HWMU 7
SITE LAYOUT
FIGURE 2-3

PROJECT NO. *1450008.041802.ai 10/10/03 SLC*



1927 North American Datum: 1,000-meter UTM grid zone 12 Map Compiles from USGS Quadrangles: Granite Peak, Granite Peak SE, UT

0 ¼ ½ 1 2 Miles

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 10,000 Feet

1,000 Meters 500 0 ½ 1 2 Kilometers

MWH

DUGWAY PROVING GROUND
HWMU 7
TOPOGRAPHIC MAP
FIGURE 2.4