

**OPERATIONAL RANGE PHASE I
QUALITATIVE ASSESSMENT REPORT
PIÑON CANYON MANEUVER SITE
LAS ANIMAS COUNTY, COLORADO**

MARCH 2008

Prepared for:

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EXECUTIVE SUMMARY

PURPOSE:

This qualitative assessment, hereinafter referred to as Phase I Assessment, evaluates Piñon Canyon Maneuver Site's (Piñon Canyon) operational range area to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. The Phase I Assessment results in the categorization of operational ranges as appropriate, as follows:

- **Referred – Refer to Appropriate Cleanup Program:** ranges with compelling evidence (e.g., sampling data) to indicate the presence of an off-range release that potentially poses an unacceptable risk to human health or the environment;
- **Inconclusive – Phase II Quantitative Assessment Required:** ranges where existing information either is insufficient to make a source-receptor interaction determination or indicates the potential for such interaction to be occurring; or
- **Unlikely – Five-Year Review¹:** ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions that could present an unacceptable risk to human health or the environment.

SUMMARY OF FINDINGS:

An Operational Range Inventory Sustainment update was submitted to the United States Army Environmental Center in January 2006 (ARID-GEO) (2006). ARID-GEO 2006 identified 38 operational range areas at Piñon Canyon encompassing a total of 223,428 acres. One new operational range was identified during the site visit to Piñon Canyon. This range was not assessed as part of this Phase I Qualitative Assessment, but will be assessed during the five-year review.

To facilitate the qualitative analysis, MCOC sources, potential migration pathways from a range, and potential off-range human and/or ecological receptors associated with the ranges at Piñon Canyon were evaluated. Each range was then placed into one descriptive group that meets the criteria for the Unlikely category.

The 38 operational ranges at Piñon Canyon that were included in the qualitative assessment have been placed into the following category.

- **Unlikely** – 38 ranges consisting of small arms ranges and training areas totaling 223,428 acres (ARID-GEO 2006)

These findings are summarized in **Table ES-1**.

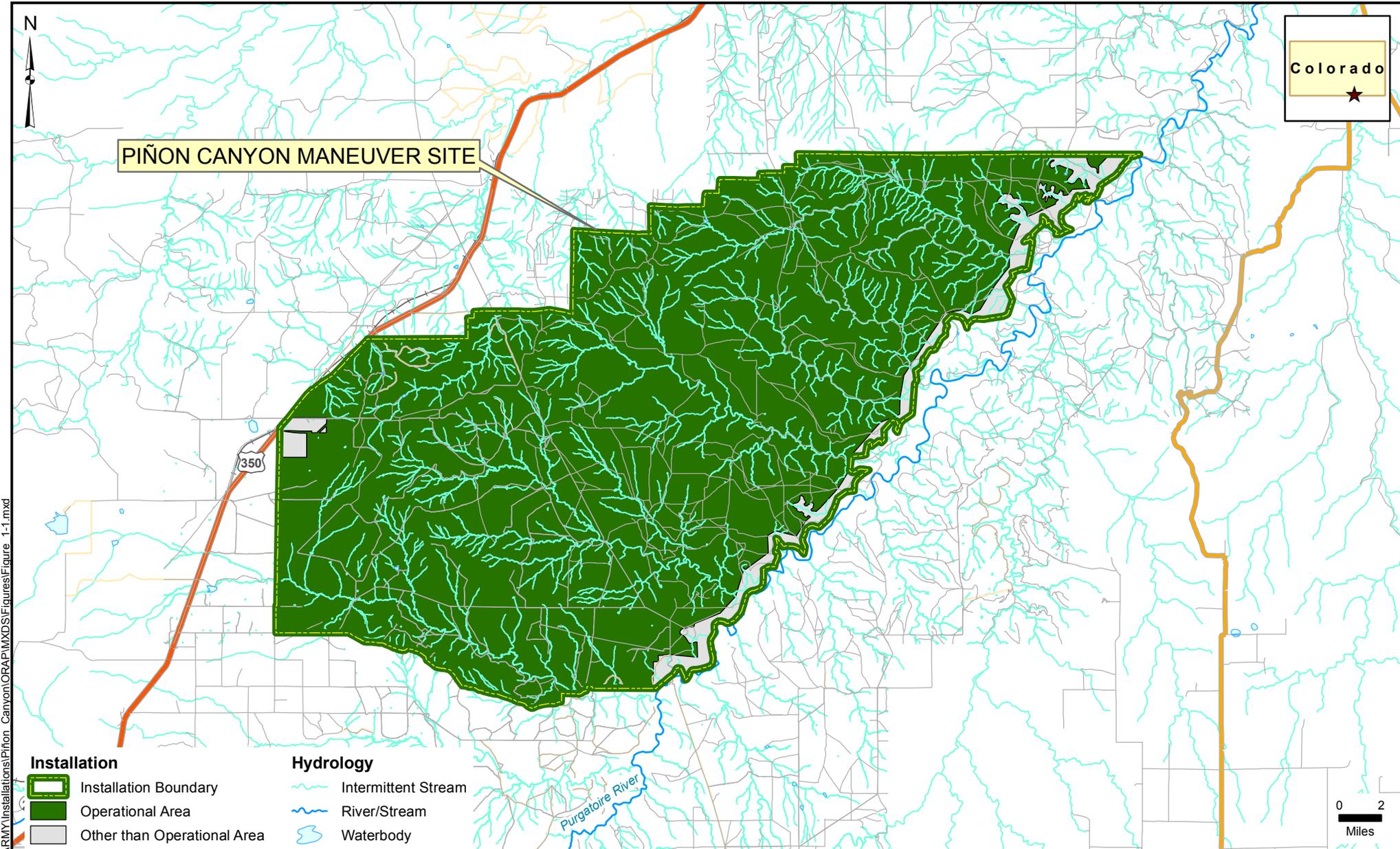
¹ All operational ranges must be periodically re-evaluated to determine if there is a release or substantial threat of release of MCOC from an operational range to an off-range area. Range groups categorized as Unlikely are to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., changes in range operations, site conditions, regulatory changes) occur that affect determinations made during the Phase I Assessment.

Table ES-1: Summary of Findings, Conclusions, and Recommendations for Piñon Canyon

Category	Group Identification	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Recommendations (Future Steps)
Unlikely	Limited source	38 operational ranges; 223,428 acres	Limited source – limited or no military munitions use	Not evaluated	Not evaluated	Not evaluated	Re-evaluate during the five-year review.

ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Geodatabase
CSM	Conceptual Site Model
DECAM	Directorate of Environmental Compliance and Management
DoD	Department of Defense
DODI	Department of Defense Instruction
DOE	Department of Energy
DZ	Drop Zone
DPTMS	Directorate of Plans, Training, Mobilization and Security
FY	Fiscal Year
GIS	Geographic Information System
gpm	Gallons Per Minute
ITAM	Integrated Training Area Management
LS	Limited Source
MC	Munitions Constituents
MCOC	Munitions Constituents of Concern
mm	Millimeters
N/A	Not Applicable
ORAP	Operational Range Assessment Program
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facilities Management Support System
TA	Training Areas
TNT	Trinitrotoluene
U.S.	United States
USAEC	United States Army Environmental Center
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency



- Installation**
- Installation Boundary
 - Operational Area
 - Other than Operational Area
- Hydrology**
- Intermittent Stream
 - River/Stream
 - Waterbody

0 2
Miles



**Operational Range Phase 1 Qualitative Assessment
Piñon Canyon Maneuver Site, CO**

**Figure 1-1
Installation Location**

Data Sources:
 AEC, ARID-GEO, 2005
 ESRI, StreetMap USA, 2005
 Piñon Canyon, CO 2006
 Date: October 2006
 Prepared By: Malcolm Pirnie, Inc.
 Prepared For: U.S. Army
 Contract: W912DR-05-D-0004

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