

***Long-Term Stewardship
Fiscal Year 2003
Well Maintenance Report***

**Idaho
Completion
Project**

Bechtel BWXT Idaho, LLC

September 2004

ICP/EXT-04-00545
Project No. 23037
Revision 0

Long-Term Stewardship Fiscal Year 2003 Well Maintenance Report

September 2004

**Idaho Completion Project
Idaho Falls, Idaho 83415**

**Prepared for the
U.S. Department of Energy
Assistant Secretary for Environmental Management
Under DOE Idaho Operations Office
Contract DE-AC07-99ID13727**

ABSTRACT

This document presents the well maintenance activities conducted by Long-Term Stewardship at the Idaho National Engineering and Environmental Laboratory during the fiscal year 2003. During fiscal year 2003, 57 wells received maintenance. Maintenance activities included, but were not limited to, the replacement of pumps, risers, wiring, and concrete pads and the standardization of electrical plugs.

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ACRONYMS

ARA	Auxiliary Reactor Area
bls	below land surface
CFA	Central Facilities Area
FY	fiscal year
HDR	Hydrologic Data Repository
hp	horsepower
ID	identification
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
NRF	Naval Reactor Facility
PBF	Power Burst Facility
RWMC	Radioactive Waste Management Complex
TAN	Test Area North
TRA	Test Reactor Area
USGS	United States Geological Survey
WGS	Waste Generator Services

Long-Term Stewardship Fiscal Year 2003 Well Maintenance Report

1. INTRODUCTION

This report summarizes site-wide well maintenance activities completed by the Well Services Group under the Long-Term Stewardship Project during fiscal year (FY) 2003 at the Idaho National Engineering and Environmental Laboratory (INEEL).

Well maintenance activities included replacing pumps, discharge and access pipe, and electrical cables; standardizing down-hole equipment; redeveloping boreholes; removing down-hole obstructions; abandoning nonfunctional boreholes; repairing, replacing, and installing concrete pads, impingement posts, and wellhead boxes; and collecting borehole deviation and video logs. Well abandonment work at M10S was also performed. Wells were maintained on a site-wide basis, both inside and outside of the INEEL facility fence lines.

1.1 Background

The INEEL, formerly the National Reactor Testing Station, occupies 890 mi² of the northwest portion of the Eastern Snake River Plain and is located approximately 42 mi west of the city of Idaho Falls (Figure 1-1). The United States Atomic Energy Commission, now the Department of Energy, established the National Reactor Testing Station in 1949 as a site to build and test a variety of nuclear facilities. The INEEL has stored transuranic radionuclides and radioactive low-level waste since 1952.

During the operational history of the INEEL, approximately 1,200 wells have been drilled to monitor the vadose zone and groundwater. The well maintenance program was established to detect and control deterioration of well system structures; repair damaged components; clean out well screens and boreholes; standardize well completion components; and collect video, geophysical, and borehole deviation logs, as necessary.

1.2 Scope

The *Well Maintenance Work-off Schedule for Fiscal Years 2003, 2004, and 2005* (INEEL 2003) listed 55 wells on its maintenance schedule for FY 2003. Because of maintenance issues that required completion before wells could be sampled, however, the Well Services Group maintained 57 wells during FY 2003. Throughout the fiscal year, wells requiring maintenance to allow sampling activities were given priority. These wells were added to the scope and maintained as part of the routine maintenance activities. Several wells scheduled for maintenance were not maintained, because additional wells required priority maintenance. Section 3 identifies the deviations from the work-off schedule.

Well maintenance activities included installing pumps, replacing pipe and pumps, removing borehole obstructions, redeveloping the borehole, abandoning wells, and repairing broken wellhead boxes and caps. Each well has been assigned an identification (ID) number and an official well name, but various projects have modified the names of many of the wells for project purposes, resulting in some confusion regarding well names. This document identifies the official well name, the most common alias, and the ID number for each well. Wells having a different common name than official name will be identified in this report by the official well name followed by the common name in parentheses.

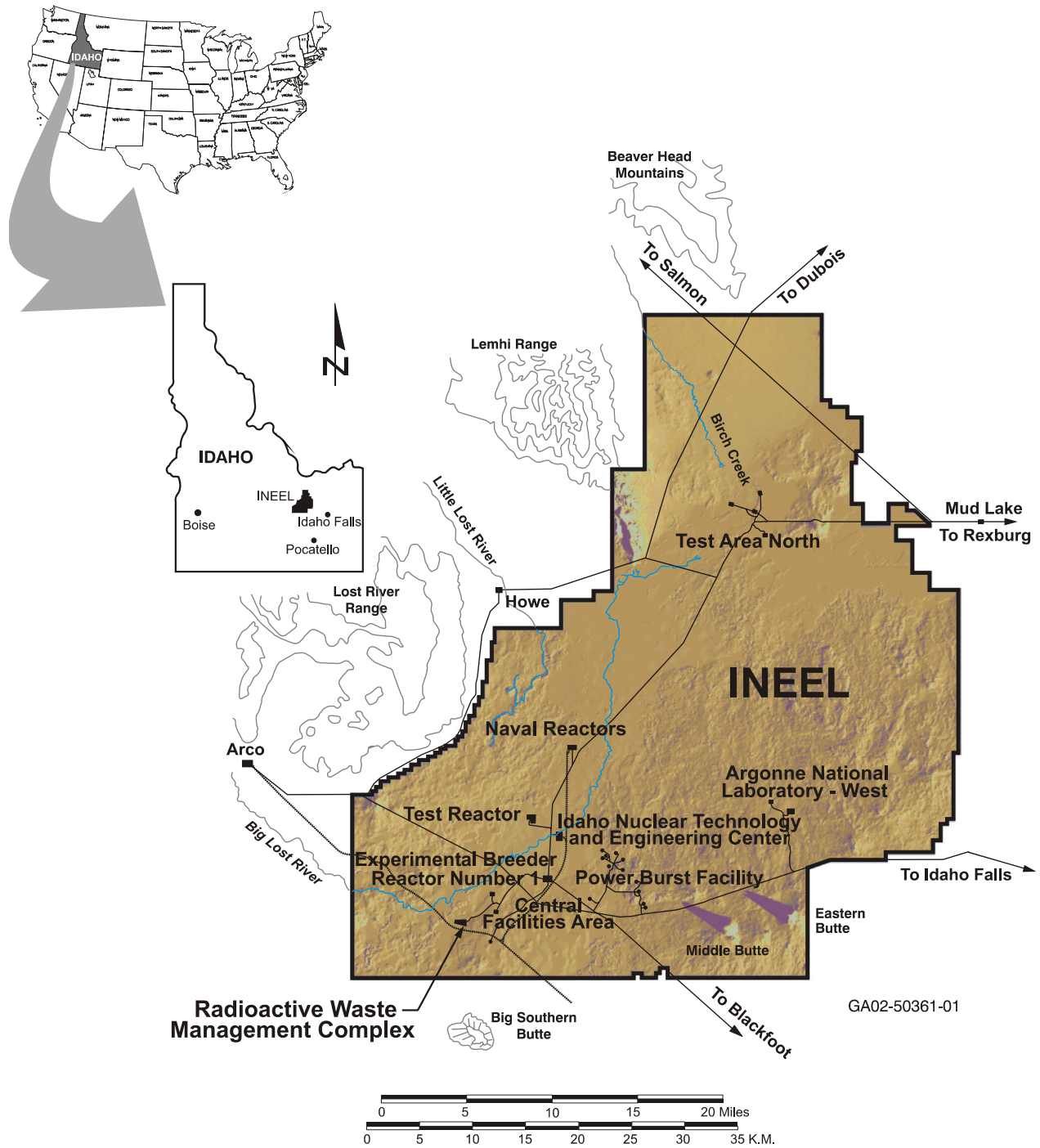


Figure 1-1. Map of the INEEL and its major facilities.