

18.0 Spook, Wyoming, Disposal Site

18.1 Compliance Summary

The Spook, Wyoming, Disposal Site, inspected on June 3, 2003, was in excellent condition. Reseeded areas have healthy and well-established grasses, forbs, and sagebrush, and there is no evidence of overgrazing even though the site is not fenced. Most previously identified rills and gullies have stabilized; rock was placed at the knickpoint of the only active gully to retard erosion. Ground water monitoring is not required at this site. No requirements for maintenance or a follow-up or contingency inspection were identified.

18.2 Compliance Requirements

Requirements for the long-term surveillance and maintenance of the Spook, Wyoming, Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I disposal site are specified in the *Long-Term Surveillance Plan for the Spook, Wyoming, Disposal Site* (DOE/AL/350215.000, Rev. 0, U.S. Department of Energy [DOE], Albuquerque Operations Office, January 1993) and in procedures established by the DOE office at Grand Junction to comply with requirements of Title 10 *Code of Federal Regulations* Part 40.27 (10 CFR 40.27). These requirements are listed in Table 18–1.

Table 18–1. License Requirements for the Spook, Wyoming, Disposal Site

Requirement	Long-Term Surveillance Plan	This Report
Annual Inspection and Report	Section 6.0	Section 18.3.1
Follow-up or Contingency Inspections	Section 7.0	Section 18.3.2
Routine Maintenance and Repairs	Section 8.0	Section 18.3.3
Ground Water Monitoring	Section 5.2	Section 18.3.4
Corrective Action	Section 9.0	Section 18.3.5

18.3 Compliance Review

18.3.1 Annual Inspection and Report

The site, located in north central Converse County, Wyoming, was inspected on June 3, 2003. Results of the inspection are described below. Features and the photograph locations (PLs) mentioned in this report are shown on Figure 18–1. The number in the left margin of this report refers to items summarized in the Executive Summary table.

18.3.1.1 Specific Site Surveillance Features

Access Road, Gate, and Signs—The road to the site is graded and hard packed. North of the Dry Fork of the Cheyenne River, the road narrows to an unsurfaced dirt track that is overgrown with grass. The road was passable but may be difficult to traverse in wet weather. DOE holds perpetual easements for the access road between County Road 31 and the site. Access to the Bear Creek UMTRCA Title II disposal site will be via this road.

Although there is an unlocked gate in the stock fence along the access road, the site itself is open range (unfenced). The site has one entrance sign and 10 perimeter signs set on posts along the site boundary. Three perimeter signs have bullet holes and perimeter sign P7 is slightly bent and the paint is cracked; these signs are still legible and the other signs were in excellent condition.

Site Markers and Monuments—The site has two site markers, eight boundary monuments, and three survey monuments. The concrete base of site marker SMK-1 is cracked and spalling but the granite marker is in excellent condition. Wind has scoured soil from beneath the surface concrete collar around boundary monument BM-6 but this will not compromise the integrity of the monument (PL-1). The other marker and monuments were undisturbed and in excellent condition.

Monitor Wells—Ground water monitoring is not required at this site.

18.3.1.2 Transects

To ensure a thorough and efficient inspection, the site was divided into three areas referred to as transects: (1) the disposal site; (2) the site perimeter; and (3) the outlying area.

Disposal Site—The Spook site is unique among Title I sites in that the tailings were placed in the bottom of an open pit mine and covered with an engineered cover and 40 to 60 feet of clean fill and topsoil. None of the observations and concerns routinely associated with above-grade disposal cells, such as quality of the riprap, stability of side slopes, or the presence of deep-rooted plants, apply to this site.

The surface of the site was in excellent condition. There was no evidence of settling over the back-filled open pit mine. The reseeded areas have healthy and well-established grasses and forbs. Sagebrush is establishing in the reseeded areas and, overall, the vegetation is indistinguishable from that growing naturally on the surrounding hills and valleys. The site perimeter is not fenced, and the adjacent landowner, Hornbuckle Ranch, manages the grazing on DOE property; there was no evidence of overgrazing.

18A Most erosion features observed during previous inspections have stabilized, as indicated by vegetation growing in the rills and gullies. Only one gully, near perimeter sign P4, appeared active; the inspectors placed some rocks at the knickpoint to help control the erosion (PL-2).

A water supply well, completed in an aquifer unaffected by regional uranium mineralization, remains at the site on DOE property. The well and the ground water it intercepts belong to DOE, but the adjacent landowner, Hornbuckle Ranch, historically has used the well for irrigation and for watering livestock. The electricity meter has been removed and there have been no indications that the well has been used since inspections began. DOE executed an agreement establishing DOE ownership of the well and providing Hornbuckle Ranch access to the well and use of the ground water at no cost or liability to DOE.

A power line and three transformers on a platform remain on site for power to the water supply well. The Pacific Power and Light Company holds a right-of-way agreement that survived the change of ownership to DOE.

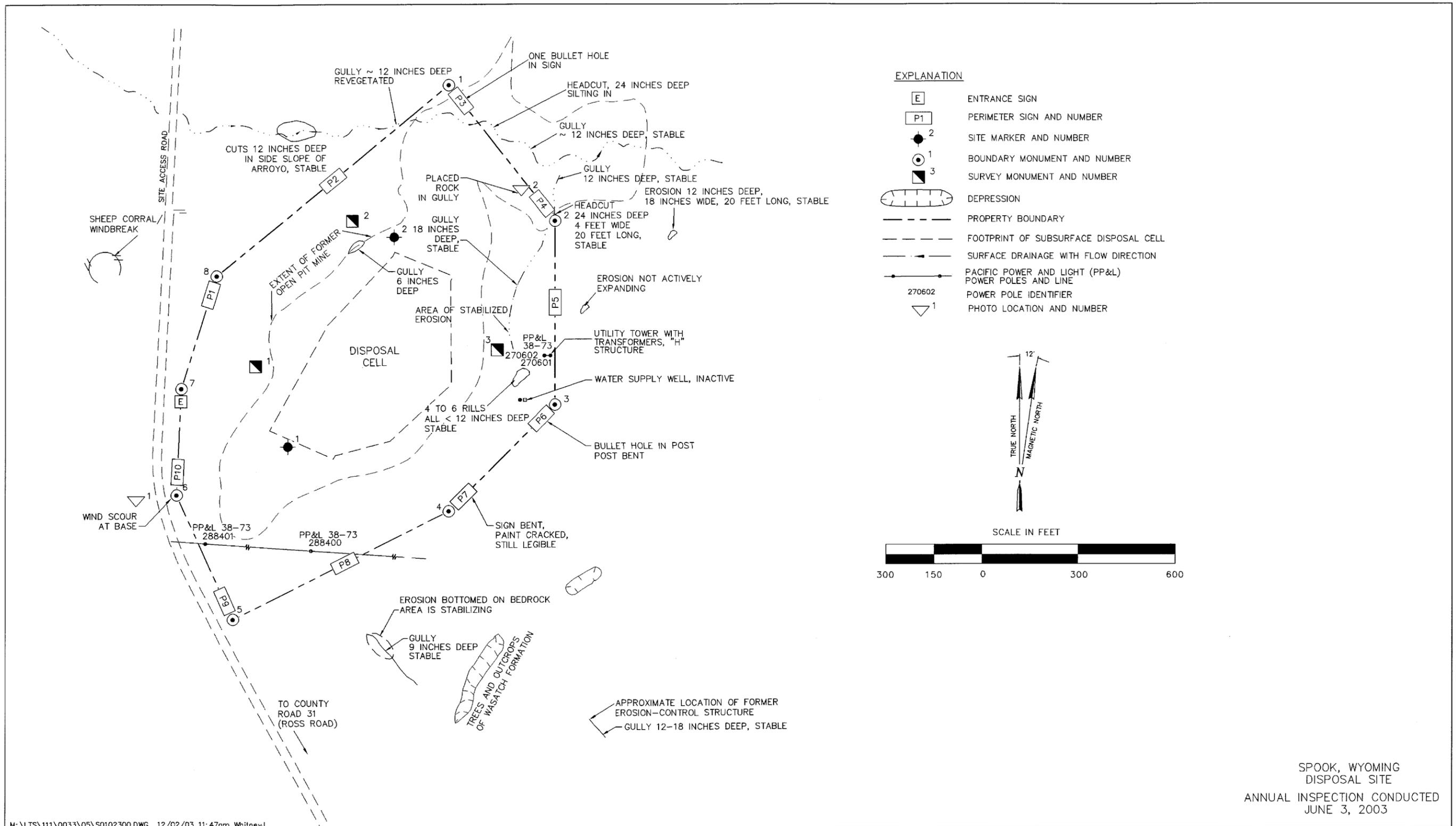


Figure 18-1. 2003 Annual Compliance Drawing for the Spook, Wyoming, Disposal Site

Site Perimeter—The site perimeter was in excellent condition. No erosion or other disturbance was observed. If there were no perimeter signs along the boundary, the perimeter of the site would be indistinguishable from the open range beyond.

Outlying Area—The area outward for a distance of about 0.25 mile from the site boundary was visually inspected. No disturbance, change in land use, or other features of possible concern were observed. Formerly active areas of erosion northeast and southeast of the site continue to be filling in with sediment and revegetating naturally.

18.3.2 Follow-Up or Contingency Inspections

No follow-up or contingency inspections were required in 2003.

18.3.3 Routine Maintenance and Repairs

Other than placing rock at the knickpoint of a gully to retard erosion, no maintenance was required in 2003.

18.3.4 Ground Water Monitoring

Ground water at this site is contaminated as a result of widespread, naturally occurring uranium mineralization. The ground water is of limited use and cannot be cleaned up by methods reasonably employed in public water systems. Supplemental standards have been applied, and ground water monitoring is not required.

18.3.5 Corrective Action

Corrective action is action taken to correct out-of-compliance or hazardous conditions that create a potential health and safety problem or that may affect the integrity of the disposal cell or compliance with 40 CFR 192.

No corrective action was required in 2003.

18.3.6 Photographs

Table 18–2. Photographs Taken at the Spook, Wyoming, Disposal Site

Photograph Location Number	Azimuth	Description
PL-1	90	Wind erosion around the concrete collar of boundary monument BM-6.
PL-2	180	Rocks placed at a gully knickpoint near perimeter sign P4.



SPK 6/2003. PL-1. Wind erosion around the concrete collar of boundary monument BM-6.



SPK 6/2003. PL-2. Rocks placed at a gully knickpoint near perimeter sign P4.

End of current section