

Wednesday November 3, 1999 13:14 -- From '304 754 6709' -- Page 10

NOV-03-1999 09:59 AM ROD BARTGIS

304 754 6709

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The Nature Conservancy (Dolly Sods North)
Tract No. 911NN (Phase II)

Special Certificate of Use and Consent
Potential for Tort Liability

I, James F. Page, do hereby state and certify as follows:

(1) That I am the Supervisor of the Monongahela National Forest, USDA, Forest Service, in West Virginia, and as such am the line officer responsible for management and administration of said forest; and,

(2) That I am familiar with a tract of land situated within the boundaries of the Monongahela National Forest known as the "Dolly Sods North tract", Phase II, which tract contains 2,467.4 acres of land and is proposed for acquisition by the United States for National Forest purposes in an amount of \$2,000,000.00 dollars; and,

(3) That the proposed acquisition referred to in the paragraph above is planned to be funded by use of \$2,000,000.00 dollars from the Land and Water Conservation Fund of 1965 (78 Stat. 897) and to proceed under the acquisition authority set forth in the Weeks Forestry Act of 1911, as amended (16 U.S.C. 515); and,

(4) That I am aware that the Dolly Sods North tract was a military artillery impact area during World War II and that unexploded artillery shells and ordnance is located in, under, and upon said tract; and,

(5) That the U.S. Army Corps of Engineers has assumed responsibility for clearing the unexploded ordnance from the whole 6,168-acre Dolly Sods North tract, but will not begin to do so in the near future and certainly not prior to the time proposed for acquisition of said Dolly Sods North tract, Phase II, by the Monongahela National Forest; and,

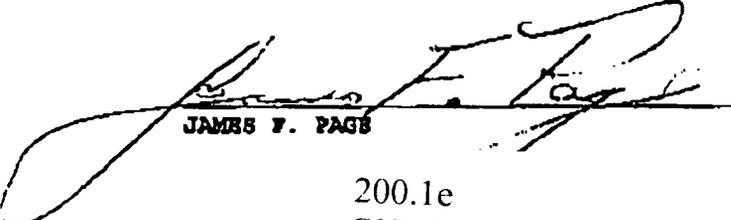
(6) Once acquired for National Forest purposes, the Dolly Sods North tract, Phase II, will be used by the public for multiple use purposes including camping, hiking, hunting, and the like; and,

(7) I have been advised by legal counsel of the potential for liability on the part of the United States due to the existence of the unexploded artillery shells and ordnance on the said Dolly Sods North tract; and,

(8) I have determined that the acquisition of said Dolly Sods North tract should proceed forward to completion, is in the best interest of the United States and that the existence of unexploded artillery shells and ordnance in, under and upon said tract will not interfere with its use for National Forest purposes.

August 27, 1993

Date


JAMES F. PAGE

200.1e

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DECISION RECORD
FOR THE ACQUISITION OF DOLLY SODS NORTH
MONONGAHELA NATIONAL FOREST, WEST VIRGINIA

BACKGROUND

Dolly Sods North is a 6168 acre tract lying just north of Dolly Sods Wilderness and west of Dolly Sods Scenic Area. It contains most of the headwaters of Red Creek, which flows through Dolly Sods Wilderness. Elevation of most of the area is over 3800 feet. Early logging, fire, and the harsh climate created by this elevation has resulted a heather type of ground vegetation similar to tundra. It is one of the unique ecosystems in the eastern United States. Although the area has not been surveyed directly, the endangered species Cheat Mountain Salamander and Virginia Northern Flying Squirrel have been found a few hundred feet from the project boundary. There are over 1000 acres of strippable coal on the property, with a market at the Mt. Storm power plant only a few miles away. It is in the interest of the management of Dolly Sods Wilderness that the watershed above the Wilderness not be stripmined. Under normal circumstances, this area would be considered as a high priority for addition into the National Forest system. However, a portion of this area has a unique hazard associated with it. From Oct 15, 1943 until about July 1, 1944, it comprised part of an impact area for artillery training by the U.S. Army in World War II.

All types up to 155mm howitzer seem to have been used, although the only evidence identified have been from 4.2" mortar, 81mm mortar, 60mm mortar, and solid shot from anti-tank guns. There were no targets and no apparent provision for forward artillery observation. It appears that the main purpose of the range was for familiarization in emplacing and firing artillery. Training in accuracy seems to have come in some other place. All they seem to have done here was fire at a land feature. Consequently, it might be expected that there would be a greater dispersion of shells around the aiming point than usual.

It had originally been thought that Blackbird Knob which lies within the proposed acquisition about 3000 feet north of the border of Dolly Sods Wilderness was the sole "aiming point". The assumption then was that as Blackbird Knob was approached, the potential for hazard to the users from unexploded ordnance increased. Consequently it followed that acquisition of the Knob and its approaches would significantly increase the risk to National Forest users. However, this assumption is no longer valid. A 1991 ordnance survey of Dolly Sods located two more aiming points both inside the Wilderness.

THE SURVEY

During the summer of 1991, a contractor for the U.S. Army Corps of Engineers conducted a survey of the Dolly Sods Wilderness to determine the extent of the unexploded ordnance problem. No survey was made in what is now Dolly Sods North.

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A set of fifty, five-acre sites were distributed in 16 (eventually 18) groups across the Wilderness Area. The groups varied in size and shape, with emphasis on known use areas and probable impact areas. Each site was then surveyed with metal detectors. The surprising discovery was that eight of the thirteen shells found on the surface were associated with Breathed Mountain deep inside Dolly Sods Wilderness, indicating that it had been an aiming point. The entire impact area for this aiming point lies completely within Dolly Sods Wilderness and five of the eight shells were found along Red Creek, which is the most heavily used portion of Dolly Sods Wilderness. On this particular site, the concentration was one shell per 2 acres.

The other five shells were found as expected, on the southern slopes of Blackbird Knob, but inside the Wilderness. However, the concentration of rounds and fragments at that point caused the survey to conclude that this also was an aiming point, possibly auxiliary to the one that everyone believes was at Blackbird Knob.

There was also differentiation amongst the type of ordinance found. Seven of the eight shells found on the Breathed Knob area were high explosive or white phosphorous. All were 81 mm or 60 mm mortar. All five of the shells found on the Blackbird Knob slope were 4.2 mortar, of which four were practice shells, filled with concrete or sand. No 105 mm or 155 mm shells were found although there seems to be sufficient evidence to indicate that they were fired. The Survey speculates that an intensive survey of Blackbird Knob might turn up such evidence.

Finally, there was differentiation in the depth at which subsurface rounds were found. The 81 mm shells were 6" or less from the surface, the 4.2" shells were 9" to 24" from the surface. The 81 mm shells which are almost always of an explosive type would be close enough to the surface to be affected by a campfire, impact of a tent stake, or hit with a shovel.

Based on this survey, the Corps has determined that the area should be decontaminated. The project is scheduled for Fiscal Year 1994, if funds are made available.

THE HAZARD (The conditions that might cause harm.)

There are four instances in which injury could occur to users of the area.

1. A shell explodes spontaneously while a user is in the vicinity.
2. A shell explodes as a user unknowingly steps on it.
3. A shell explodes when a user picks it up or when he tosses it aside.
4. A shell explodes because a camper drove his tent stake into it while it was buried under ground, used it as a hammer to drive a tent stake, or built a fire over it. (One shell was found by the survey "within several feet of a ... campfire pit". (p4-24)

From this it can be seen that the threat is highest for campers. They remain exposed the longest, and their activities are more likely to set off a shell, as compared to other users.

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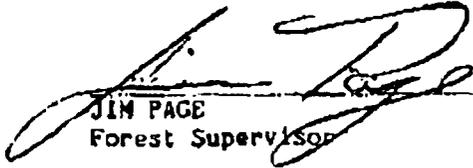
NOV-03-1999 10:02 AM ROD BARTGIS

304 754 6709

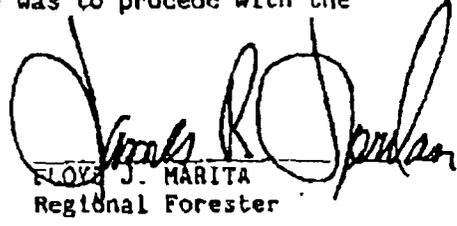
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CONCLUSION

In a comparison between what the US now owns in Dolly Sods Wilderness, and what it might acquire in Dolly Sods North, it appears that the areas of the former artillery range that provide the greatest risk to users under current or expected use patterns are already in United States ownership. Yet, extensive dispersed recreation use of the Wilderness, much of which has concentrated on apparent impact areas, has not resulted in any injuries. Finally, the Corps of Engineers has assigned a high priority for decontamination of the entire area, with a project expected to start in Fiscal Year 1994, if funding comes available. Given this situation, the decision was to proceed with the acquisition of Dolly Sods North.


JIM PAGE
Forest Supervisor

12/7/92
Date


FLOY J. MARITA
Regional Forester

12-4-92
Date

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So far, no explosions, spontaneous or other have been known to occur. There was rumor of an incident occurring right after WW II, but the Survey could find no verification so discounted it. The most likely candidate for a spontaneous explosion would be corroded smoke (white phosphorous) shells. If the casing corrodes enough to let in oxygen, the phosphorous could ignite and the shell explode. This also could happen if the corroded casing was ruptured by accidentally stepping on it, hitting it with a shovel, or pounding with it.

THE EXTENT OF THE HAZARD THAT MIGHT BE ACQUIRED

It had been assumed that the major hazard associated with the entire training area would be acquired with Blackbird Knob within Dolly Sods North. This assumption is no longer valid. The discovery of two aiming points in the Wilderness, where none were suspected, significantly changes the extent of the hazard that would be acquired with Dolly Sods North. It now has been determined that a significant proportion of the total hazard associated with this range is already in US ownership.

THE EXTENT OF THE RISK BEING ACQUIRED (The possibility that harm may occur)

At present, the highest concentration of camping use on the entire area, both Wilderness and Dolly Sods North, is taking place on the lower Red Creek drainage within the Wilderness. The survey of this area shows a concentration of one explosive type shell per two acres, the highest of any area surveyed. And camping has been shown as the highest risk activity.

Past use of Dolly Sods North has been almost exclusively transient; hikers, hunters, berry pickers, and ATV operators. The only consistent use and exposure to ordnance hazard after WW II was its use as a grazing area for cattle until the mid-1970's. Because of its location in the headwaters of Red Creek, the streams do not lend themselves to camping. The stream bottoms are boggy or filled with rock rubble. The slopes above the streams are windswept and harsh, unattractive to the usual camper. As noted above, the risk associated with camping is significantly higher than that undergone by other types of uses. While occasional camping is expected, it will be of a much lower magnitude than that already concentrated on the lower reaches of Red Creek within the Wilderness. The only expected change in use after acquisition will be the elimination of ATV use of the area.

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P.02



Human Factors Applications

INCORPORATED
ORDNANCE & EXPLOSIVE WASTE REMEDIATION

12070 Old Line Centre
Suite 210
Waldorf, MD 20602-2513
Tel: (301) 705-5044
Fax: (301) 705-7561

November 1, 1999

Virginia Power
Fossil and Hydro Supply Management
ATTN: Mr. Jud ~~White~~ → *RLB*
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Subj: Final UXO Avoidance Report, Purchase Order No. 70005644 dated 9/14/1999

Dear Mr. White:

As required by the Purchase Order, the Final UXO Avoidance Report for the Bear Rocks Property is submitted.

If you have any questions or comments please call me at (301) 705-5044.

Sincerely,

Scott A. Hemstreet
Office Manager – Assistant Director of Operations

Enclosure
as



A Wholly Owned Subsidiary of IITRI

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P.03

FINAL UXO AVOIDANCE REPORT

**UXO AVOIDANCE SUPPORT TO THE VIRGINIA
POWER SURVEY CREW AT VIRGINIA POWER'S BEAR ROCKS PROPERTY
LOCATED NEAR THE DOLLY SODS WILDERNESS AREA, WEST VIRGINIA**

PREPARED BY

HUMAN FACTORS APPLICATIONS, INC.

ORDNANCE & EXPLOSIVES REMEDIATION

November 1, 1999

PURCHASE ORDER # 70005644

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P.04

FINAL UXO AVOIDANCE REPORT, PURCHASE ORDER # 70005644, UXO AVOIDANCE SUPPORT TO THE VIRGINIA POWER SURVEY CREW AT VIRGINIA POWER'S BEAR ROCKS PROPERTY LOCATED NEAR THE DOLLY SODS WILDERNESS AREA, WEST VIRGINIA

The Ordnance & Explosives Remediation Office of Human Factors Applications, Inc. (HFA, Inc.) was contracted by Virginia Power to provide UXO avoidance and identification services in support of their survey crew at Virginia Power's Bear Rocks property, located near the Dolly Sods Wilderness Area, West Virginia.

Periods of Performance: In order to accommodate the schedule of Virginia Power's survey crew, this project was performed during three separate mobilizations.

Mobilization 1: September 19 – September 28, 1999
Mobilization 2: October 2 – October 7, 1999
Mobilization 3: October 18 – October 19, 1999

General Comments: The following activities were completed during the three separate mobilizations.

During the first mobilization, Mr. Holm provided visual UXO avoidance while the surveyors located the existing survey monuments and utilized GPS to determine the boundaries of the site. Mr. Holm utilized a Schonstedt 52Cx Magnetometer to perform subsurface checks for anomalies at points where the survey crew were setting stakes or other markers. The crew completed their GPS work and demobilized so that the data could be processed. No UXO were located during this mobilization.

During the second mobilization, Mr. Holm provided surface visual and subsurface magnetometer UXO avoidance at the sites selected for stakes/rebar. During this mobilization, 3' lengths of rebar were driven into the ground every 1000' to mark the site boundary. In addition, Mr. Holm escorted Mr. Jud White and Mr. Ron Birchhead from VA Power and Mr. Rod Bartgis from the environmental group receiving the property around the site on 4 October. The UXO described below was located on the 5th of October and identified and marked by Mr. Holm.

During the final mobilization, Mr. Holm provided surface visual and subsurface magnetometer UXO avoidance to the survey crew while they set Carsenite boundary markers around the Bear Rocks property. Mr. Holm also escorted Senior Trooper Wintsberger of the West Virginia State Police to the location of the UXO during this mobilization.

Mr. Holm noted no surface evidence of UXO or fragmentation from UXO on the Bear Rocks property itself and detected no subsurface anomalies at the points that were staked by the VA Power survey crew. The one UXO located during this project was not on the property surveyed.

Problems Encountered: The remote location, dense vegetation, and rugged terrain of the site required slowed the progress of the survey and required long work days to complete the project.

UXO Located: 1 ea. 105mm Artillery Projectile (fuzed). This UXO was located on the 5th of October and investigated by Mr. Holm. The UXO was located approximately 75 feet west of the western boundary of the survey area, near the northern boundary. Its coordinates are N214894.892, E2025884.827. It is not located in the survey area but was visible from a dirt road used by a local hunt club. The item was marked with yellow flagging tape and orange and white survey tape. On the 18th of October, Mr. Holm contacted the West Virginia State Police and made arrangements to meet with them the next day to show them the location of the item. On the 19th of October, Mr. Holm met with Senior Trooper Wintsberger from the Moorefield Office of the West Virginia State Police. Mr. Holm briefed Senior Trooper Wintsberger on the UXO and escorted him to the location. Senior Trooper used a Magellan GPS system to record the location of the item and informed Mr. Holm that their Explosive Ordnance Disposal Specialist would dispose of the item.

UXO Team Member: Mr. Jeff Holm, UXO Supervisor

Daily Operations Journals: Attached



HUMAN FACTORS APPLICATIONS, INC.
ORDNANCE & EXPLOSIVE WASTE REMEDIATION
(301) 705 -5044 FAX: (301)705 - 7561

DAILY OPERATIONS JOURNAL

Form with fields for CLIENT: VA Power, CONTRACT NO: 70005644, DATE: 9/21/99, PROJECT: Bear Rocks Survey, GRIDS COMPLETED: N/A, TOTAL EXCAVATED: 0, TOTAL UXO: 0, TOTAL NON-UXO: N/A, UXO TEAM LEADER: Jeff Holm, UXO SAFETY OFFICER: (blank), UXO TEAM MEMBERS: N/A, MK2/SCHONSTEDT SETTING: 4, FISHER SETTING: N/A, FIELD OPERATIONS TIME: 10, STANDBY TIME (GOVT. DELAY): 0. Includes handwritten comments and a signature.



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DAILY OPERATIONS JOURNAL

Form with fields for CLIENT: VA Power, CONTRACT NO: 70005644, DATE: 9/23/99, PROJECT: Bear Rocks Property, and a large COMMENTS section with handwritten text.

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(301) 705 -5044 FAX: (301)705 - 7561

DAILY OPERATIONS JOURNAL

Form with fields for CLIENT: VA Power, CONTRACT NO: 70005644, DATE: 10/03/99, PROJECT: Bear Rocks Property, GRIDS COMPLETED: n/a, TOTAL EXCAVATED: n/a, TOTAL UXO: 0, TOTAL NON-UXO: n/a, UXO TEAM LEADER: Jeff Holm, UXO SAFETY OFFICER: (blank), UXO TEAM MEMBERS: n/a, MMS/SCHONSTEDT SETTING: 4, FISHER SETTING: n/a, FIELD OPERATIONS TIME: 2, STANDBY TIME (GOVT. DELAY): 0, COMMENTS: I met survey crew at 1230 hours. They checked into their cabin and wanted to check out the site. I gave safety brief and survey team accompanied the crew while they shot some angles. No UXO found.

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Nov-01-99 10:36A HFA WALDORF MD

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ORDNANCE & EXPLOSIVE WASTE REMEDIATION
(301) 705 -5044 FAX: (301)705 - 7561

DAILY OPERATIONS JOURNAL

CLIENT: VA Power		CONTRACT NO: 70005644	
DATE: 10/05/99		PROJECT: Bear Rocks Property	
GRIDS COMPLETED: N/A	TOTAL EXCAVATED: N/A	TOTAL UXO: 1	TOTAL NON-UXO: N/A
UXO TEAM LEADER: Jeff Holm		UXO SAFETY OFFICER:	
UXO TEAM MEMBERS: N/A			
MK24/SCHONSTEDT SETTING: 4		FISHER SETTING: N/A	
FIELD OPERATIONS TIME: 11 hours		STANDBY TIME (GOVT. DELAY): 0	
<p>COMMENTS: 0700 Safety Brief. This morning Survey team did site walk through and inspection by lead surveyor. When he finished, survey team continued to mark western boundary. I checked with Schonstedt any spot where ground was to be penetrated. Today one of the surveyors spotted a UXO and called me to investigate. I identified it as a fuzed 105mm Artillery round. The round is approx 75 feet west of western boundary near the North boundary. It is not in the surveyed property but it is visible from a dirt road that is used by a local hunt club. Coordinates are N 214984.892, E 2025884.827. I marked it with yellow flagging tape and orange and white spray paint.</p>			
UXO TEAM LEADER SIGNATURE: <i>Jeff Holm</i>			
FORECASTED OPERATIONAL SCHEDULE			
SCHEDULED UXO SERVICES:		DATE OF OPERATION:	
CLIENT REP:		SIGNATURE:	
TITLE:	DATE:	TIME:	



HUMAN FACTORS APPLICATIONS, INC.
ORDNANCE & EXPLOSIVE WASTE REMEDIATION
(301) 705 -5044 FAX: (301)705 - 7561

DAILY OPERATIONS JOURNAL

Form with fields for CLIENT: VA Power, CONTRACT NO: 70005644, DATE: 10/06/99, PROJECT: Bear Rocks Property, CRIDS COMPLETED: 0, TOTAL EXCAVATED: N/A, TOTAL UXO: 0, TOTAL NON-UXO: 0, UXO TEAM LEADER: Jeff Holm, UXO SAFETY OFFICER: (blank), UXO TEAM MEMBERS: N/A, MK2/SCHONSTEDT SETTING: 4, FISHER SETTING: N/A, FIELD OPERATIONS TIME: 10, STANDBY TIME (GOVT. DELAY): 0, COMMENTS: Safety Brief 0800. Surveyors continued to mark boundary lines by cutting a path along the lines and putting survey markers every 1000 feet. (3' rebar) The western and northern boundaries have been completed. No UXO or any other anomalies have been detected at any survey point. Nice weather today.

