



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply To
Attn Of: ECL-116

ACTION MEMORANDUM

DATE: December 20, 2002

SUBJECT: Request for a Removal Action at the Colville Tribal Drum site, Nespelem, Okanogan County, Washington; Site ID: 10AL

FROM: Michael J. Szerlog
On-Scene Coordinator

TO: Michael F. Gearheard, Director
Office of Environmental Cleanup

THRU: Chris Field, Manager
Emergency Response Unit
Office of Environmental Cleanup

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval for a Removal Action described herein for the Colville Tribal Drum site, Nespelem, Okanogan County, Washington, Confederated Tribes of the Colville Reservation. The Removal is required for immediate reduction of the risk to the public and the environment from the uncontrolled hazardous substances at Colville Tribal Drum.

II. SITE CONDITIONS AND BACKGROUND

The U.S. Environmental Protection Agency (EPA) identification number for the Site are: Site ID - 10AL, CERCLIS - WAN001002417, and RCRIS - WAH000019679. This is a time critical removal action.

**COLVILLE TRIBAL DRUM
ACTION MEMORANDUM**

12/20/02

The Colville Tribal Drum (Colville Drum) site is located at 63A Schoolhouse Loop Road in Nespelem, Washington, Confederated Tribes of the Colville Reservation, approximately 2.5 miles southwest of the town center. The site serves as offices for the Tribal Fish and Wildlife Department (TFWD), the tribal logging group, and the tribal roads group (EPA Figure 1). The site is approximately 10 acres in size and is located within the Confederated Tribes of the Colville Reservation (Colville Tribes)

There are no known flood plains, endangered species, historical landmarks, or structures with historical significance identified at the Site. There are Tribal interests in the site. EPA received a request from the Colville Tribes as part of the Comprehensive Response Strategy on Indian Lands project to conduct a removal site evaluation at this site of abandoned drums located within the tribal reservation. The Tribe expressed concerns that the abandoned drums on site may release causing exposures to tribal members.

Surface water from the site drains south by mean of manmade and natural drainage routes to the Nespelem River, located approximately $\frac{3}{4}$ of a mile south of the site. The Nespelem River flows to the south and west to the Columbia River, located approximately 2 miles downstream from the confluence of the drainage routes.

Seven test well logs are on file with the Department of Ecology. The logs are incomplete, however, in general the wells were drilled to approximately 120 feet and static water level was near 60 feet below ground surface. According to the Colville Tribe, all the residences in the area have domestic wells, however, installation of a drinking water supply line is planned for the area. The Colville Tribe indicated that there were likely three homes and one business to the south and five homes to the north that use well water. In addition the Fish and Wildlife department drinking water is supplied by a well onsite. It is estimated that there are approximately 10 to 15 wells within a one mile radius of the site.

Ownership History

The site is currently part of the Colville Tribes. The tribe is unsure where all the drums came from, however, Gary Passmore, Environmental Trust Department, Colville Tribes, has indicated that most are from defunct tribal businesses including an abandoned laboratory that was located on site.

State Enforcement Actions

The State has not conducted any enforcement actions.

Regulatory and Enforcement History

EPA conducted initial sampling of the Colville Drum site in July, 2002

EPA Enforcement Actions

No current EPA enforcement actions.

A. Site Description

1. Removal Site Evaluation

In July, 2002, EPA conducted a removal assessment at the Colville Drum site. Current Site Conditions include the following:

- One hundred and twenty two drums were identified as having unknown contents; the majority of which were 55-gallon, steel, and of varying color.
- Ninety 5-gallon plastic containers of varying color were observed onsite. Of these, approximately 50 contained unknown materials.
- One black plastic drum was located in the TFWD garage. The drum appeared to be unopened and labeled formaldehyde.
- Approximately 40 containers of laboratory chemicals, test kit reactants, and paints were observed stored on a table located in the TFWD garage. The chemicals were stored around other TFWD equipment and could easily be knocked over. In addition, there were no controls to prevent access to these chemicals.
- Several empty drums, gasoline and diesel tanks, and old underground storage tanks were observed onsite in the bone yard areas.
- Five lead-acid batteries and several miscellaneous paint cans were observed in the unclaimed building, located southeast of the TFWD garage.

Soil staining was observed throughout the site.

2. Physical Location

The site is situated on the Okanogan Highlands, a complex of metamorphic rocks intruded by Mesozoic granite rocks. Located approximately five miles northeast of the Columbia River, the site lies within the southern region of the Republic graben, consisting of a downthrown block of bedrock bounded by the Sherman fault to the east and the Nespelam River fault and several other faults to the west. The Okanogan metamorphic core complex to the west, the Columbia River to the south, and the lower-lying Keller graben to the east define the southern region of the Republic graben. During its formation, the Republic graben, a northeast-trending, fault-bounded basin, filled with volcanic and sedimentary rocks (Joseph 1990). Although the majority of the Republic graben consists of Eocene volcanic and sedimentary rocks, the site is situated in an area that consists of fine- to very coarse- grained biotite granite and granodiorite. The surficial geology of the site consists of glaciolacustrine and catastrophic flood deposits from glacial Lake Missoula and/or possibly from local ice dam failure in the Columbia River valley (Joseph 1990). These deposits consist of fine to medium sand with silt.

3. Site Characteristics

The Tribal Fish and Wildlife Department (TFWD), the tribal logging group, and the tribal roads group currently occupy the site where the drums and containers have been abandoned. According to Gary Passmore, Environmental Trust Department of Colville Tribe, the origin of the drums is unknown.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

The primary concern at this Site is the threat of release of CERCLA hazardous substances and pollutant or contaminants from abandoned drums at the site. Currently, the site is in disrepair. Several hundred drums and miscellaneous containers were observed onsite.

A total of 278 containers were inspected; of these 56 were sampled for field hazard categorization. Based on hazard categorization results, twelve samples that represented individual waste streams were delivered to Severn Trent Services in Tacoma, Washington for confirmation laboratory analysis.

Table 2 summarizes estimated material quantities at the Colville Drum site. The quantities are based upon site observation.

Table 2

Type of Material	Description	Estimated Quantity a	Potential Hazard
Rusty water with residue	55-gallon drums	230 gallons	Release of water with potentially small quantities of various contaminants
Combustible oil-water mixtures	Oil water mixtures in 55-gallon drums.	650 gallons	Human and environmental exposure to petroleum products
Flammable and potentially toxic	Grease / sludge / water mixtures in 55-gallon drums	560 gallons	Human and environmental exposure to hazardous materials
Flammable and hazardous materials	Black waste oils with elevated PID readings halogenated solvents and flash point below 140°F	620 gallons	Human and environmental exposure to hazardous materials
Combustible liquids and potentially toxic	Yellow and orange grease / sludge mixtures, with elevated PID readings in 55-gallon drums	60 gallons	Human and environmental exposure to hazardous materials

Corrosives (Phosphoric, murratic, acetic, hydrochloric, nitric, and hydrofluoric acids)	Hazardous materials with low pH found in 55-gallon drum and various containers (1-pint to 1-gallon) laboratory acids in TFWD garage	21 gallons	Human and environmental exposure to corrosive materials
Potential toxic chemical	Various laboratory reactants from Hach test kits located in TFGD Garage	Approximately 1 pound	Exposure to humans and potential improper disposal
Hazardous substances	55-gallon drum labeled Formaldehyde and miscellaneous containers with formaldehyde located in the TFWD Garage	50 gallons	Human and environmental exposure to hazardous materials

^a Volumes were estimated by grouping drum and container contents that had similar properties and PID results and assigning a material type based on field and laboratory analyses of similar materials in these groups.

Drums and containers onsite will continue to deteriorate over time. As a result, the potential of solvents, acids, bases, oil and toxic chemicals to be released to the environment is high.

5. NPL Status

The Colville Drum site property is currently not a National Priorities List site.

6. Maps, Pictures, and other Graphic Representations

See attached EPA Figure 1, Figure 2, and Figure 3.

B. Other Actions To Date

1. Previous Actions

No previous actions have been conducted on site.

2. Current Actions

There are no current actions being conducted on site.

C. State and Local Authorities' Roles:

1. State and Local Actions to Date:

No known investigations by the State have been conducted at the site.

2. Potential for Continued State and Local Response:

The State does not have jurisdiction on Tribal Reservations. The State does not plan to conduct any actions.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES:

Conditions presently exist at the site which may present an imminent and substantial endangerment to public health or welfare or the environment. Conditions at the site meet the criteria for a removal action as stated in the National Contingency Plan (NCP), 40 CFR, Section 300.415 as follows:

A. Threats to Public Health or Welfare

Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby human populations or the food chain. Volatilization of hazardous substances contained in deteriorating drums on site threatens surrounding residents and trespassers with airborne exposure.

Actual or potential contamination of drinking water supplies. Drinking water wells are located on site. The Tribal Fish and Wildlife department's drinking water is supplied by an on-site well. It is estimated that there are approximately 10 to 15 wells within a one mile radius of the site. Depth to groundwater is approximately 60 feet below ground surface. There is a potential for hazardous substances to enter the drinking water source if the contents of the drums were spilled onto the surface soils.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of a release. CERCLA hazardous substances, pollutants, and contaminants are contained in several hundred drums and other containers on site. These containers are in various stages of deterioration and some are located in close proximity to workers and tribal members. These containers are uncontrolled and there is a risk of exposure to nearby workers, tribal members, and trespassers.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate. No soil sampling was conducted during the removal site evaluation. Slight staining was observed during the sampling event.

Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released. Continual exposure to rain and snow events will worsen the situation causing accelerated deterioration of on-site containers releasing their contents.

Threat of fire or explosion. Several drums and containers were found on site containing flammable materials including solvents. Flashpoint tests were done for confirmation. There exists a threat of fire or explosion from the flammable materials present on site.

B. Threats to the Environment

The contamination at the Site creates an imminent and substantial endangerment to the environment in part through the actual or potential exposure of the surface soils to hazardous substances and pollutants or contaminants.

Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby animals or the food chain. Many of the drums and containers containing hazardous substances are located in a field. Releases could pose a risk to migratory waterfowl that may use the field for resting or feeding during their migration. Other animals may also be exposed if using the field.

Actual or potential contamination of sensitive ecosystems. No sensitive ecosystems are known to be surrounding the Site.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of a release. Hundreds of drums and containers are located on site. The Removal Assessment determined that they contain hazardous substances and that they are deteriorating. Releases of these chemicals may endanger local wildlife including waterfowl and other migratory species.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate. No soil sampling was conducted during the removal site evaluation.

Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released. Most of the chemicals on-site are located in containers. Precipitation will increase the degradation of these containers accelerating the potential for release.

Threat of fire or explosion. There is a fire or explosion hazard at the Site that may cause harm to the environment including migratory waterfowl and area wildlife.

IV. ENDANGERMENT DETERMINATION

Actual and threatened releases of hazardous substances, pollutants and contaminants from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

The Director of the Office of Environmental Cleanup has determined that the site conditions: 1) present an immediate risk to public health or welfare or the environment; and 2) present a situation where assistance from other government agencies or responsible parties will not otherwise be provided on a timely basis.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

The objective of the actions outlined below is to achieve reductions in potential exposures to human health and the environment in the areas with the potentially most mobile and highest levels of contamination. These proposed actions are based on the information known to date regarding the conditions at the site. As additional information is gathered, further actions may be necessary. The Colville Tribe has secured approximately \$25,000 to assist EPA with the cleanup.

1. Proposed Action Description

The following Removal options were evaluated:

- 1. Removing all drums and containers from the field and staging them on pallets to reduce deterioration and potential release. Covering drums with plastic and installing fence around drums/containers.**
- 2. Removal and off-site disposal of drums and containers containing hazardous substances; Removal and off-site disposal of drums and containers containing non-hazardous substances (Colville Tribe will fund most of this effort); Removal and off-site disposal of contaminated debris; and evaluate the need for further sampling to determine extent of potential hazardous substance contamination.**
- 3. No action.**

Alternative #2 was selected, as this was determined to be the most protective, while still being cost effective in addressing the threat of a release from the drums and containers on site. Alternative #1 and #3 do not fully meet the objectives of the NCP or CERCLA. Alternative #1 would be protective of human health and the environment by limiting the spread of contamination by

reducing the deterioration of the containers, however, would still leave the potential for a fire hazard, for trespassers to potentially be exposed, and for a potential release. Alternative #3 was not selected as this did not address the threats to human health and the environment whatsoever, and left hazardous substances in place. This alternative was not protective because it did not provide for protection of the Tribal community, trespassers, or the environment.

2. Contribution to Remedial Performance

NA

3. Description of Alternative Technologies

The use of field analytical equipment was identified as an alternative to commercial laboratory analysis to help reduce costs.

4. EE/CA

This applies only to non-time critical responses. This is a time critical removal action.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

The proposed removal action will attain or exceed all ARARs to the extent practicable. Two factors will be applied to determine whether the identification and attainment of ARARs is practicable: (1) the exigencies of the situation; and (2) the scope of the removal action to be taken.

Federal ARARs

The following is a summary of federal ARARs identified to date that may be applicable to the proposed removal action:

Resource Conservation and Recovery Act, as amended (RCRA), 42 U.S.C. §§ 6901 et seq., and its implementing regulations codified in Chapter 260 through 265, and 268 of the Code of Federal Regulations (CFR), including but not limited to the following specific requirements identified at this time:

40 CFR §§ 261.10 and 261.24, relating to characteristics of hazardous wastes including the toxicity characteristic.

40 CFR §§ 262.20, 262.21, 262.22, 262.23, 262.30,

262.31, and 262.32, relating to hazardous waste manifesting and

labeling requirements prior to transportation of hazardous waste containers off-site;

40 CFR §§ 263.20 and 263.21, relating to off-site transport of hazardous waste (handling and manifesting requirements);

40 CFR § 265.272(a-e), relating to prevention of surface water run-on and collection and control of surface water run-off at a land treatment unit;

40 CFR Part 268, relating to off-site and on-site land disposal restrictions for hazardous wastes;

40 CFR § 300.440, relating to the CERCLA “Off-Site Rule.”

Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712 et seq., relating to the protection of migratory birds and their feathers, nests, and eggs.

U.S. Department of Transportation, 49 CFR Parts 171-180, relating to transportation of hazardous materials to off-site disposal facilities.

Native American Graves Protection and Repatriation Act, 25 U. S. C §§ 3001 et seq., relating to the protection of Native American Remains. Since EPA does not plan to excavate, EPA will not develop an accidental discovery plan. The Colville Tribe has agreed to assist EPA with cultural resource and graves protection specialists.

National Historic Preservation Act, 36 CFR Part 800, relating to protection of historic artifacts. The Colville Tribe has agreed to provide a cultural resource specialist if needed.

State ARARs

The following is a summary of state ARARs identified to date that may be relevant and appropriate, to the proposed removal action:

Model Toxic Substances Control Act, as amended (MTCA), and its implementing regulations codified at Chapter 173-340 of the Washington Administrative Code (WAC) (determined to be relevant and appropriate). The relevant and appropriate requirements under MTCA identified to date include the following:

Chapter 173-340-745 WAC, relating to MTCA soil cleanup standards for industrial sites.

Solid Waste Management-Reduction & Recycling Act, RCW 70.95, relating to the disposal of non-hazardous wastes.

Transportation of Hazardous Waste Materials, WAC 446-50, relating to the transportation of hazardous wastes to an off-site disposal facility.

Minimum Functional Standards for Solid Waste Handling, WAC 173-304, relating to the disposal of non-hazardous waste.

6. Project Schedule

The selected removal action is estimated to require approximately one week time to complete on-site removal and two months time to complete transportation and disposal. Removal may commence upon signature of this Action Memorandum.

B. Estimated Costs

1. Extramural Costs

ERRS	\$ 75,000
------	-----------

START	\$ 10,000
-------	-----------

Subtotal	\$ 85,000
----------	-----------

15% Contingency	\$ 12,750
-----------------	-----------

Extramural Subtotal	\$ 97,750
---------------------	-----------

2. Intramural Costs

EPA Direct	\$ 10,000
------------	-----------

USCG Strike Team	\$ 0
------------------	------

Subtotal	\$ 10,000
----------	-----------

Subtotal of Extr/Intramural	\$107,750
-----------------------------	-----------

10% Project Contingency	\$ 10,775
-------------------------	-----------

Project Ceiling	\$118,525
-----------------	-----------

IV. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR

NOT TAKEN

Delay or disapproval of the proposed action will allow the potential for release of CERCLA hazardous substances into the environment and increase the risk of exposure to nearby residents, tribal members, and trespassers. Failure to act will increase/prolong the threats to human health and the environment described above.

VII. OUTSTANDING POLICY ISSUES - NONE

VIII. ENFORCEMENT

EPA has started a baseline PRP search at the Site. The Colville tribe has indicated that they are unsure who is responsible for leaving behind all of the drums and containers.

IX. RECOMMENDATION

Conditions at the site meet the NCP Section 300.415(b)(2) criteria for a removal and I recommend your approval of the proposed removal action. The total project ceiling if approved will be \$118,525. Approximately \$75,000 will be for Extramural cleanup contractor funding, all of which will be from the regional removal funds. The Colville Tribe has received approximately \$25,000 from the Bureau of Indian Affairs and has agreed to use that money to subcontract with EPA's contractor (conducting the removal) to independently pay for a portion of the removal action.

APPROVED

Michael F. Gearheard, Director
Office of Environmental Cleanup

DISAPPROVED

Michael F. Gearheard, Director
Office of Environmental Cleanup

Date:_____

Date:_____

CONCURRENCE

SIGNATURE			
SURNAME	Michael Szerlog On-Scene Coordinator	Chris Field Unit Manager	Michelle Pirzadeh Associate Director
DATE			

REFERENCES

Joseph, Nancy L., compiler, 1990, Geologic map of the Nespelem 1:100,000 quadrangle, Washington: Washington Division of Geology and Earth Resources Open File Report 90-16, 47 p., 1 pl.

Herrera, Inc. September 2002, Removal Site Evaluation Report, Colville and Makah Tribal Drum Sites, prepared for the U.S. Environmental Protection Agency, Region 10, under Contract No. 68-S0-01-03, TDD number 02-06-007.

