Site-Specific Justification for the Deletion of the Land/Soil Portion of the Summit National Superfund Site from the National Priorities List

Deerfield Township, Portage County, Ohio

January 2022

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List of Acronyms

CERCLA- Comprehensive Environmental Response, Compensation and Liability Act
EPA - U.S. Environmental Protection Agency
ESD - Explanation of Significant Differences
FR - Federal Register
FS - Feasibility Study
FYR - Five Year Review
gpm - Gallons per minute
HI - Hazard Index
IC - Institutional Control
LTS - Long-Term Stewardship
MCL - Maximum Contaminant Level
mg/kg - milligrams per kilogram (parts per million)
µg/kg - micrograms per kilogram (parts per billion)
µg/l - micrograms per liter (parts per billion)
MVSD - Mahoning Valley Sanitary District
NCP - National Oil and Hazardous Substances Pollution Contingency Plan
NOIPD - Notice of Intent for Partial Deletion
NPL - National Priorities List
O&M - Operation and Maintenance
OMMP - Operation, Maintenance, and Monitoring Plan
OSWER- Office of Solid Waste and Emergency Response
PAHs - Polynuclear Aromatic Hydrocarbons
PCBs - Polychlorinated Biphenyls
PIN - Property Identification Number
QAPP - Quality Assurance Project Plan
RA - Remedial Action
RAOs - Remedial Action Objectives
RD - Remedial Design
RD/RA - Remedial Design/Remedial Action
RI - Remedial Investigation
RI/FS - Remedial Investigation/Feasibility Study
ROD - Record of Decision
SNFT - Summit National Facility Trust
SSIPL - Site-Specific Indicator Parameter List
SVOCs - Semivolatile Organic Compounds
TAL - Target Analyte List
TCL - Target Compound List
TCLP - Toxicity Characteristic Leaching Procedure
TSCA - Toxic Substances Control Act
UU/UE - Unlimited Use/Unrestricted Exposure
VOCs - Volatile Organic Compound

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1.0 Purpose

The U.S. Environmental Protection Agency (EPA) Region 5 is proposing to delete the land/soil portion of the Summit National Superfund Site (Summit National Site or Site) located at 8186 U.S. Route 224 in Deerfield Township, Portage County, Ohio from the National Priorities List (NPL).

This partial deletion pertains to the land/soil portion of:

- The original Site property [tax property identification number (PIN) 08-056-00-00-006-000]. This portion of the Site includes the former waste disposal operations area and soil cover;
- The fenced area of the Site extending onto the adjacent property (up to approximately 50 feet) to the south on PIN 08-056-00-00-007-000; and
- The adjacent off-site soil areas that were remediated to levels acceptable for unlimited use/unrestricted exposure (UU/UE) beyond the fence line on PIN 08-056-00-00-007-000 and on PIN 08-056-00-00-005-000 east of the Site (see Figures 1 to 4).

All cleanup actions have been implemented for the land/soil portion of the Site on these properties. No further response action is needed for the land/soil portion of the Site other than continued operation and maintenance (O&M) of the fence, soil cover, and other remedial components located within the fenced area on PINs 08-056-00-00-006-000 and 08-056-00-00-007-000, long-term stewardship (LTS) of implemented institutional controls (ICs), and periodic five-year reviews (FYRs). The land/soil portion of the adjacent off-site areas beyond the fence line were remediated to levels acceptable for UU/UE and do not require O&M, ICs, or FYRs.

The groundwater portion of the Site is still undergoing a long-term cleanup and will remain on the NPL. The sediments in the drainage ditches located beyond the fence line south and east of the Site were remediated during an interim response action conducted in 1991. However, because shallow groundwater may discharge to the ditches, the surface water and sediment portions of the Site will remain on the NPL until the long-term groundwater cleanup is complete.

This document provides information about the Summit National Site and explains how the land/soil portion of the Site meets EPA's partial deletion criteria. EPA plans to publish a Notice of Intent for Partial Deletion (NOIPD) of the Summit National Site from the NPL in

the Federal Register (the proposed rulemaking) and will open a 30-day public comment period on this proposed action. The documents which provide support for this report and the partial deletion are available for review in the Summit National Partial Deletion Docket (see Appendix A). This docket is available online at https://www.regulations.gov and at EPA's webpage for the Site under "Site Documents & Data" at https://www.epa.gov/superfund/summit-national.

The deletion or a partial deletion of a site from the NPL does not create, alter, or revoke any individual's rights or obligations. The deletion or a partial deletion of a site from the NPL does not in any way alter the EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.425(e)(3), states that a deletion or partial deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions. As the land/soil that EPA is proposing to delete from the NPL is part of the Summit National Site, Section 300.425(e)(3) is applicable to this proposed action.

2.0 Agency Concurrence

EPA requested the Ohio Environmental Protection Agency's (OEPA's) concurrence with proposing the land/soil portion of the Summit National Site for NPL deletion on October 27, 2021. OEPA issued a letter concurring with EPA's proposed partial deletion on December 7, 2021. A copy of OEPA's concurrence letter is in Appendix B.

EPA Headquarters provided review and comment on this Justification for Partial Deletion report on December 1, 2021. EPA Region 5 addressed EPA Headquarters' comments on the report and expects EPA Headquarters to propose the Site for partial deletion in the Federal Register in EPA's March 2022 NPL Deletions Update.

3.0 Community Notification and Opportunity for Review and Comment

EPA and OEPA conducted public participation activities throughout all response actions for the Site, satisfying the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Sections 113(k) and 117, 42 U.S.C. §§ 9613(k) and 9617, and the NCP, 40 C.F.R. §§ 300.415(n), 300.430(f), 300.815, and 300.820 (see Section 12.0, Community Involvement of this report for additional details).

EPA will publish a notice advertising the availability of the NOIPD and the 30-day public comment period in a local newspaper, the Record-Courier in Kent, Ohio, concurrent with the publication of the NOIPD in the Federal Register to satisfy public participation procedures required by Section 300.425(e)(4) of the NCP. EPA will also issue a press release announcing the proposed partial deletion and public comment period. EPA expects to complete these activities in March 2022.

The documents that EPA relied on for this report and to support the deletion of the land/soil portion of the Site from the NPL are available for public review in the partial deletion docket (see Partial Deletion Docket Reports Index in Appendix A). This report and copies of the reports in the docket are available to the public online at https://www.regulations.gov, Docket ID EPA-HQ-OLEM-2021-0815 and at EPA's webpage for the Site at https://www.epa.gov/superfund/summit-national under "Site Documents & Data".

4.0 Site Background and History

4.1 Site Location and Background

The Summit National Site is a former industrial waste disposal facility located at 8186 U.S. Route 224 in Deerfield Township, Portage County, Ohio, approximately 45 miles southeast of Cleveland, Ohio. The 11.5-acre Site is located on a roughly rectangular property at the southeast corner of the intersection of Ohio State Route 225 and U.S. Route 224 (PIN 08-056-00-00-006-000). In 1990, the Site boundary was expanded to include a portion of the adjacent property (about 50 feet) south of the Site on PIN 08-056-00-00-007-000. See Figures 1 and 2.

Prior to 1974, the Site was a coal strip mine with a coal wash pond and a coal stockpile. From 1974 to 1978 the Site was used to store and dispose industrial waste and to incinerate liquid waste. Prior to the cleanup, the Site contained the remains of a coal tipple and a scale house in the northwest corner, two dilapidated buildings in the northeast corner, an abandoned incinerator and two small buildings in the southeast corner, and two ponds (referred to as the east pond and the west pond) across the center of the property. These features were removed during the remedial action (RA).

The Site is bordered by a skating rink, a school bus storage facility, and a residence to the north of U.S. Route 224; a permitted solid waste landfill to the west; an undeveloped brushy wooded area to the east; and a commercial concrete facility and an old unpermitted landfill to the south. The larger surrounding area is a mix of commercial, agricultural, and residential properties. Approximately 4,500 people live within three miles of the Site. Surface water in the vicinity of the Site flows to the southeast toward the Berlin Lake reservoir, which is a standby water supply for the city of Youngstown.

4.2 Groundwater Use

The Site lies within the northwestern portion of the glaciated Allegheny Plateau and is located within the drainage divide between Lake Erie and the Ohio River. The hydrogeology of the Site is complex and characterized as three separate hydrogeologic units: the water table unit, the upper and lower intermediate units, and the upper Sharon aquifer (see Figure 5). The water table unit is generally from 5 to 12 feet below grade and flows to the southeast toward the Berlin Lake reservoir. Groundwater in the upper

intermediate unit flows generally southeastward and in the lower intermediate unit, it flows westward. The Upper Sharon aquifer flows to the north.

Groundwater in the vicinity of the Site is used as a drinking water supply for residents, commercial properties, and an industry. Nine residential wells that drew water from the intermediate unit and the upper Sharon aquifer were sampled in 1984 during the remedial investigation (RI). The wells did not contain any Site-related organic contaminants. Barium was the only possible Site-related inorganic chemical that was detected in one well at a concentration of 184 micrograms per liter (µg/l), which is below the Maximum Contaminant Level (MCL) drinking water standard of 2,000 µg/l. This residence was located immediately east of the Site and was demolished in the 1990s RA.

4.3 History of Contamination

In 1973, Summit National Liquid Services obtained a "Permit to Install" an 18,000 gallon per month liquid waste incinerator at the Site from OEPA. OEPA issued an operating permit for the incinerator in 1974. The Site received liquid wastes from various manufacturing and chemical companies. The wastes were either delivered in bulk on tanker trucks or in 55-gallon drums.

The wastes were stored in underground storage tanks, 55-gallon drums, and in an open pit referred to as the polymer pit. Many wastes were mixed with flammable liquids and incinerated. Some wastes were buried on-site, while others leaked or were dumped onto the ground. The incinerator reportedly operated until 1978.

During its operation, several industrial wastes were disposed at the Site, including waste oils, resins, paint sludges, flammable solvents, chlorinated solvents, plating sludges, pesticide wastes, phenols, cyanides, acids, various polymers, and lab packs. It was reported that an unlined, 326,000-gallon concrete block tank used for liquid waste mixing and solidification regularly overflowed during heavy rainfall. Approximately 17,000 drums were stored on-site.

4.4 Initial Investigations and Cleanup Actions

In 1975, the OEPA Northeast District Office investigated a complaint of an unauthorized discharge of wastewater from the Site. In 1976, EPA inspected the Site and found evidence of numerous leaks and spills. The owner was notified of the need for a Spill Prevention Control and Countermeasures Plan and was informed that he was in violation of state laws regulating the treatment and disposal of industrial waste. OEPA issued Final Findings and Orders on June 12, 1978 that required Summit National to cease receiving waste materials, remove all liquid waste from the Site, and to receive written approval prior to removing any material from the facility. No further waste material was received at the Site. In 1979, the Site owner sold the property without removing any waste from the Site.

In August 1979, the State of Ohio filed a complaint against the present and former owners that alleged the operation of a solid waste disposal site without a permit, the creation of a public nuisance, failure to comply with orders from OEPA, and the installation of facilities for the storage and disposal of liquid waste without submitting plans to OEPA. Testing found over 7,500 gallons of a toxic chemical, hexachlorocyclopentadiene, commonly called HCCPD or C-56, which is used to manufacture pesticides, flame retardants, resins, and dyes, at the Site.

In September 1979, EPA notified the owner that a remedial action was being planned at the Site pursuant to Section 311 of the Clean Water Act, 33 U.S.C. § 1321, because C-56 and other hazardous chemicals were leaking into the environment. The owner refused to implement a voluntary action or fund the cleanup. In 1980, EPA removed three bulk tanks and their contents (approximately 7,500 gallons) from the Site. EPA also conducted a limited soil removal and treated contaminated water. OEPA fenced and graded the Site to control access and drainage, staged about 2,000 drums, and installed two on-site and four off-site groundwater monitoring wells. During 1980 and 1981, some of the companies that brought waste to the Site identified themselves and voluntarily removed their wastes.

In 1980, the State of Ohio and eight waste generators reached an agreement that provided $2.5 million for a surface cleanup at the Site. The cleanup was conducted from 1981 to 1982 and included the removal of approximately 17,000 drums, tanks, surface debris, and limited soil. The surface cleanup removed a significant amount of the source of the contamination at the Site but did not include any subsurface investigations or cleanup. During the cleanup, OEPA identified several areas where buried drums and/or tanks might be located.

In 1987, EPA's Emergency Response Section responded to an emergency situation involving overflows of the east Site pond onto an adjacent residential property. EPA's response included the excavation and disposal of a buried tank located north of the incinerator.

4.5 NPL Listing

EPA proposed the Summit National Site to the NPL on December 30, 1982 (47 Fed. Reg. 58476). EPA finalized the Site listing on the NPL on September 8, 1983 (48 Fed. Reg. 40658).

5.0 Remedial Investigation/Feasibility Study (RI/FS)

EPA conducted a fund-lead RI/FS at the Summit National Site from 1984 to 1988. EPA conducted the RI field work from 1984 to 1986 and issued final RI and FS reports in 1988.

5.1 Remedial Investigation

EPA conducted the RI in two phases. The Phase I RI activities included a geophysical study, monitoring well installation and groundwater sampling, hydrogeologic testing, on-site and off-site surface water and sediment sampling, on-site surface soil sampling, residential well sampling, on-site tank sampling and air sampling.

The Phase II RI activities included additional monitoring well installation and hydrogeologic testing, on-site subsurface soil sampling, off-site surface soil sampling, additional surface water, sediment, and residential well sampling, test pit excavation, surveying existing structures, buried drum and tank sampling, and the disposal of RI-derived waste.

The RI indicated that the surface and subsurface soils, sediments, surface water, and groundwater at the Site were contaminated with several organic and inorganic compounds. Samples taken off-site at the southern and eastern perimeter of the Site were also affected by Site contamination. The findings of the RI are summarized below.

5.1.1 Buried Material

The results of the buried materials investigation indicated that five buried tanks and an estimated 900 to 1,600 drums were buried on-site. Approximately 675 to 1,200 of the drums were estimated to be intact and to possibly contain waste. In 1987, EPA removed one of the five tanks during an emergency response. The tank contained several organic and inorganic compounds.

5.1.2 Soil

The background soils representing local residential, farm and strip mine soil had detectable levels of numerous organic and inorganic compounds. The origins of these contaminants could not be determined during the RI. However, some inorganic compounds such as aluminum, arsenic, iron, manganese, and nickel are associated with coal and coal refuse, and are naturally occurring in a coal mining area.

The surface and subsurface soils at the Site (down to 8 ft.) contained several organic and inorganic contaminants. Many of the contaminants, such as benzene, toluene, and phenol, were not observed off-site, and some contaminants were found at concentrations up to several orders of magnitude above background levels. Soil concentrations were compared to average background concentrations based on samples collected from residential, farming, and mining locations, and were also compared to residential background samples alone. Both comparisons indicated that the Site was contaminated and that off-site soils were also affected. Off-site soils at the cement plant south of the Site contained numerous polynuclear aromatic hydrocarbons (PAHs) and other organic chemicals at concentrations above background levels. The off-site soil east of the Site also showed contamination,

particularly Polychlorinated Biphenyls (PCBs), at levels that exceeded background concentrations.

5.1.3 Groundwater

The RI found that the vertical groundwater gradient between the water table unit and all deeper strata was downward at all locations. In the bedrock wells, the vertical components were downward in the central portion of the Site and upward in the southern portion.

Shallow on-site groundwater in the water table unit and in the upper intermediate unit was contaminated with several organic compounds, including 2-butanone, phenol, toluene, and bis (2-ethyl hexyl) phthalate. The highest concentrations of contaminants occurred in the southwestern portion of the Site and generally decreased across the southern half of the site, from west to east.

In the deeper, lower intermediate unit wells, contaminants were only detected in one well, MW-24. The wells in the upper Sharon aquifer were not contaminated and none of the residential wells, which represented water in the intermediate units and the Upper Sharon aquifer, contained organic contaminants above background levels. The only possible Site-related inorganic contaminant detected in the residential wells was barium, which was detected in a residential well located immediately east of the Site at a concentration of 184 µg/l, which is below the MCL of 2,000 µg/l.

5.1.4 Surface Water

Surface water flow at and near the Site only occurred in response to seasonal precipitation events and no reliable flow estimates or stream loading characteristics could be made. The on-site surface water in the east and west ponds was contaminated with organic and inorganic compounds at concentrations above background levels. The east pond had consistently higher levels of contaminants than the west pond based on total fraction concentrations.

5.1.5 Sediment

On-site sediments in the east and west ponds were contaminated in all samples based on concentrations that exceeded background soil concentrations and upstream sediment concentrations not affected by the Site. The west pond samples contained higher concentrations of organic contaminants while the east pond samples showed higher levels of inorganic contaminants. The off-site sediment in the southern ditch and the lower east drainage ditch contained organic chemicals above background concentrations. The first and second impoundments located off-site, southeast of the Site also showed minor contamination.

5.1.6 Air Quality

The results of the RI indicated that the Site emits low levels of Volatile Organic Compounds (VOCs) to the air. However, the levels were well below Federal health and safety standards. The RI concluded that air contamination should not occur unless there was a surface disturbance at the Site.

5.2 Risk Assessment

The RI included a risk assessment to determine the potential risk the Site may have on human health. The study concluded that unacceptable health risks [i.e., greater than an excess lifetime cancer risk of 1×10^{-4} to 1×10^{-6} or a non-cancer hazard index (HI) greater than 1] may occur under current and potential future conditions (see Table 1).

The risk assessment evaluated potential exposure to Site contaminants through the incidental ingestion of contaminants from direct contact with soil and sediment, and through the ingestion of contaminated groundwater in the water table and intermediate groundwater units below the Site. Risks were evaluated for:

- Current on-site trespasser exposure to soil,
- Current off-site worker exposure to soil at the southern perimeter of the Site,
- Current off-site resident exposure to soil at the eastern perimeter of the Site,
- Current risks to children from sediment in the off-site ditches and to teenagers from the sediment in the impoundment south of the Site,
- Risks to future on-site workers and residents living on the Site from exposure to on-site soil and groundwater.

Soil - The risk assessment indicated that under reasonable maximum exposure conditions, on-site soil posed a cancer risk of 3×10^{-5} to current trespassers, 2×10^{-4} to future on-site workers, and 5×10^{-3} to future residents living on the Site. The cancer risk to current off-site workers at the southern perimeter of the Site was 4×10^{-5} and the risk to current off-site residents at the eastern perimeter of the Site was 2×10^{-4}.

On-site soil posed an unacceptable non-cancer risk to future residents (HI > 1) under reasonable maximum exposure conditions but not to current trespassers or future workers (HI < 1). Off-site soil did not pose any non-cancer risks to current workers at the southern perimeter of the Site or to current residents at the eastern perimeter (HI < 1).

Sediment - Contaminated sediment in the off-site ditches and in the impoundment south of the Site posed cancer risks of 6×10^{-6} to 1×10^{-7} to children and teenagers under reasonable maximum exposure conditions. Antimony in the sediment also posed a current unacceptable non-cancer risk (HI > 1) to children playing in the ditches under reasonable maximum exposure conditions but not under average conditions.

Groundwater - Drinking the groundwater at the Site posed an unacceptable cancer risk of 3×10^{-2} to 1×10^{-3} to future on-site workers and 3×10^{-1} to 2×10^{-2} to future on-site residents under reasonable maximum exposure scenarios. Unacceptable non-cancer risks (HI > 1) were also identified for future on-site workers and residents from groundwater ingestion.

5.3 Feasibility Study

EPA developed nine cleanup alternatives to address the unacceptable risks posed by the Site. EPA evaluated the cleanup alternatives in a 1988 Public Comment Feasibility Study Report (see Appendix A). All of the cleanup alternatives except the no-action alternative (Alternative 1) and the resident relocation with ICs and monitoring alternative (Alternative 2) included an active groundwater response. All of the cleanup alternatives except the no-action alternative included resident relocation, ICs, and monitoring. The cleanup alternatives that EPA evaluated for the Site were:

Alternative 1 - No action.
Alternative 2 - Resident relocation with ICs and monitoring.
Alternative 3 - Capping with off-site drum and tank incineration, groundwater pump and treat system, resident relocation, ICs, and monitoring.
Alternative 4 - On-site hazardous waste landfill for vadose zone soil with off-site drum and tank incineration, groundwater pump and treat system, resident relocation, ICs, and monitoring.
Alternative 5 - On-site incineration of drums, tanks, and highly contaminated soil with residual material contained in an on-site hazardous waste landfill, groundwater pump and treat system, resident relocation, ICs, and monitoring.
Alternative 6 - On-site incineration of drums, tanks, and all vadose zone soil with residual material contained in an on-site hazardous waste landfill, groundwater pump and treat system, resident relocation, ICs, and monitoring.
Alternative 7 - On-site incineration of drums, tanks, and all saturated and unsaturated soil down to bedrock with residual material contained in an on-site hazardous waste landfill, groundwater pump and treat system, resident relocation, ICs, and monitoring.
Alternative 8 - Off-site drum and tank incineration with in-situ vitrification of highly contaminated soil, groundwater pump and treat system, resident relocation, ICs, and monitoring.
Alternative 9 - Off-site drum and tank incineration with in-situ vitrification of all vadose zone soil, groundwater pump and treat system, resident relocation, ICs, and monitoring.

6.0 Remedy Selection

6.1 Remedial Action Objectives (RAOs)

EPA's RAOs for the Summit National Site are to address all affected media at the Site, including contaminated groundwater, surface and subsurface soil, surface water, sediments, buried drums, and tanks.

6.2 Proposed Cleanup Plan

EPA issued a proposed cleanup plan for the Summit National Site in February 1988. EPA's proposed cleanup alternative was Alternative 5 – on-site incineration of drums, tanks, and highly contaminated soil with the residual material to be contained in an on-site hazardous waste landfill, the installation of a groundwater pump and treat system, resident relocation, ICs, and monitoring.

EPA held a public meeting to discuss the Site and the proposed cleanup plan on February 29. 1988. EPA accepted public comments on its proposal from February 12, 1988 to March 21, 1988. See Section 12.0, Community Involvement for additional information.

6.3 Record of Decision (ROD)

EPA selected Alternative 5 as the cleanup remedy for the Summit National Site in a June 30, 1988 ROD. OEPA concurred with the ROD. The remedy was estimated to cost $25 million and included the following components:

1. Constructing a chain-link fence around the Site perimeter and seeking deed restrictions from property owners to control future use of the Site.
2. Elimination of on-site surface water. Collecting and treating surface water from the two on-site ponds and off-site drainage ditches. Excavating the sediments for on-site treatment after the ponds and ditches are dewatered. Re-grading the Site to eliminate the ponds and rerouting the southern and eastern drainage ditches to uncontaminated areas beyond the Site.
3. Excavation and on-site incineration of 32,000 cubic yards of highly contaminated soil, 1,550 cubic yards of contaminated sediments, the contents of 1,600 buried drums (88,000 gallons), and the contents of four tanks with waste ranging from 1,000 to 7,500 gallons.
4. Dismantling and/or demolishing all on-site structures for on-site disposal.
5. Installing a soil-bentonite slurry wall around the Site perimeter to a depth of approximately 40-feet to prevent the lateral off-site migration of contaminants.
6. Extracting contaminated groundwater beneath the Site for on-site treatment. The extraction system would consist of 220 extraction wells installed on a 50-foot grid system over the Site to remove contaminated water from the water table unit (the most highly contaminated groundwater located closest to the ground surface) and 12 wells to extract groundwater from the intermediate unit (the less contaminated

groundwater below the water table unit). Treated groundwater will be discharged downgradient approximately 3,500 Southeast of the Site.

7. Creating an on-site hazardous waste landfill, built with an underlying double synthetic liner, to dispose of the residual materials from the incinerated waste.
8. Re-grading the Site and installing a multi-layer hazardous waste cap over the entire Site. The cap will consist of a two-foot compacted clay layer covered by a high-density 40-mil polyethylene liner, a synthetic drainage net, one foot of clean earth fill, and one foot of topsoil.
9. Relocating the vacant residence adjacent to the Site.

6.4 ROD Amendment

EPA issued a proposed ROD Amendment in 1990 to modify the remedy based on a negotiated settlement agreement with the companies and individuals that were liable for the cleanup. The major difference between the 1990 proposal and the 1988 ROD was that the incinerated material below risk-based and hazardous waste criteria would be backfilled on-site under a permeable cap instead of in an on-site hazardous waste landfill. Also, the 220 extraction wells and slurry wall for the groundwater cleanup would be replaced with a perimeter pipe and media drain groundwater collection system supplemented by 12 groundwater extraction wells in the intermediate aquifer. The permeable cap would allow remaining soil contaminants to be flushed out of the soil and into the groundwater where they would be collected and treated by the groundwater collection system, resulting in a long-term soil cleanup. Groundwater collection and treatment will continue until the groundwater is restored to drinking water levels on-site and off-site.

EPA held a public meeting to discuss the proposed ROD Amendment on August 1, 1990. EPA accepted public comments on the proposed ROD Amendment during a 30-day public comment period held from July 16, 1990 to August 17, 1990. EPA issued a final ROD Amendment on November 2, 1990. OEPA concurred with the ROD Amendment.
The cleanup remedy in the ROD Amendment was estimated to cost $34.4 million and included the following major components (listed in the same order as in Section 6.1, Record of Decision above):

1. Expanding the Site boundary to include contaminated areas along the Site perimeter and the off-site drainage ditches and constructing an 8-foot chain link fence around the expanded Site boundary.
2. Elimination of on-site surface water. Collecting and treating surface water from the two on-site ponds and off-site drainage ditches. Excavating the sediments for on-site treatment after the ponds and ditches are dewatered. Re-grading the Site to eliminate the ponds and rerouting the southern and eastern drainage ditches to uncontaminated areas beyond the Site.
3. Excavation and on-site incineration of 24,000 cubic yards of highly contaminated soil, 4,000 cubic yards of contaminated sediments, the contents of 900 to 1,600 buried drums (88,000 gallons), and the contents of four tanks containing 1,000 to 7,500 gallons of waste. The contaminated soils and on-site sediments will be

excavated to a depth of two feet below ground surface (generally the most highly contaminated material) instead of up to eight feet below ground surface required by the 1988 ROD. The remaining, lower levels of contaminants will be flushed into the groundwater by rain and snowfall infiltrating the permeable cover, then collected by the groundwater collection system and treated. Soils in drum and tank excavation areas will be excavated to greater depths as needed.

4. Dismantling and/or demolishing all on-site structures for on-site disposal.
5. No slurry wall will be constructed under this remedial action.
6. Collecting contaminated groundwater beneath the Site for on-site treatment using a pipe and media drain system along the southern boundary and lower portions of the eastern and western boundaries instead of using 220 extraction wells to extract the contaminated groundwater. Twelve extraction wells will be installed in the intermediate aquifer unit to augment the pipe and media drain system. The collected groundwater will be treated by a system to be enclosed in an on-site building. Groundwater collection and treatment will continue until the groundwater is restored to drinking water levels on-site and off-site.
7. No on-site landfill will be constructed unless the treated waste fails appropriate testing. Instead, ash and treatment residuals from the incinerated waste material will be tested to ensure it conforms with EPA and OEPA standards and used as fill to regrade the Site before placing a permeable final cover over the surface. If the material does not meet the standards for organic contaminants it will be re-treated by the incineration process until it achieves acceptable levels. If the ash does not meet EPA's hazardous waste disposal requirements for inorganic contaminants it will placed in an on-site hazardous waste facility.
8. Re-grading and installing a permeable soil cover over approximately 10.6 acres of the Site. The permeable cover will consist of an 18-inch layer of loam and 6 inches of topsoil with gas vents for treating and monitoring potential air emissions.
9. Relocating the vacant residence east of the Site.

6.5 Explanation of Significant Differences (ESD)

EPA issued an ESD to the ROD Amendment on March 23, 1992. The ESD clarified that regulations in the Toxic Substances Control Act (TSCA) applied to incinerated soil containing PCBs at concentrations greater than 50 mg/kg (about eight percent of the soil to be incinerated). The ESD required a test burn to be conducted with monitoring of the TSCA parameters during the burn. If the incinerator passed the test for the TSCA parameters, the PCB-contaminated soil with concentrations at or above 50 mg/kg would be incinerated on-site. If the incinerated soil did not meet the TSCA requirements, then the PCB-contaminated soil would be sent to an off-site TSCA landfill for disposal.

7.0 Remedy Implementation

The Summit National Facility Trust (SNFT) is conducting the long-term cleanup at the Site required by the 1990 ROD Amendment pursuant to a June 11, 1993 Consent Decree agreement with EPA and OEPA.

7.1 Remedial Design (RD)

SNFT conducted pre-design investigations in 1991 and 1992. EPA and OEPA approved SNFT's RD Work Plan and Design Criteria Document in 1992 and SNFT's Final Design Report and Remedial Construction Work Plan in 1993.

7.2 Remedial Action (RA)

7.2.1 RA Construction

SNFT implemented the RA construction in five phases from June 30, 1993 to August 23, 1995. EPA, OEPA, and the SNFT conducted a final inspection at the Site on August 23, 1995. EPA issued a Preliminary Close Out Report for the Site on September 18, 1995. SNFT issued a Remedial Action Report documenting that the RA construction was complete, including as-built drawings, on October 31, 1995.

Specific RA activities included:

Expanding the Site Boundary to include the south drainage ditch and contaminated areas along the Site perimeter and constructing a temporary six-feet high chain link fence with three strands of barbed wire around the expanded Site boundary to match the existing fence height around the Site until the remedial construction was complete (fence height approximately 8 feet total).

Dismantling and/or Demolishing All On-Site Structures for on-site disposal.

Excavating and Overpacking Approximately 782 Containers from seven buried drum areas into approximately 468 overpack drums for off-site disposal. The drums were disposed of off-site due to public concern about on-site incineration of the drum contents.

Removal, Dismantling, and On-Site Disposal of Six Steel and Four Concrete Underground Storage Tanks. The contents of the tanks were tested and were either treated in the on-site groundwater treatment system or disposed of off-site. The steel tanks were removed, dismantled, and disposed on-site. The concrete underground storage tanks were abandoned in-situ.

Mobile Incinerator Performance Testing which indicated that the ash and treated materials would meet criteria for backfilling and that an on-site hazardous waste landfill was not required. 50-point composite sampling of excavated soil in areas where PCBs were identified at concentrations greater than 50 mg/kg indicated that the concentration of PCBs in the excavated material was less than 50 mg/kg and that a separate PCB incinerator performance test was not required.

Air Modeling to determine the impact of incinerator emissions on ambient air. The modeling indicated that the incinerator would not pose any unacceptable risks. The calculated non-cancer HI was 0.21 and the calculated cancer risk was 1.2×10^{-6}.

Excavation of approximately 18,600 tons of contaminated soil (on-site and off-site) and 2,500 tons of contaminated on-site sediment for thermal treatment prior to backfilling under the on-site soil cover. The on-site and off-site soil and the sediments in the east and west ponds were excavated to a depth of 2 feet in designated 100-foot grids based on the analytical data collected during the RI that corresponded to a residential cancer risk of 3×10^{-5} or greater (see Figures 3, 4, 6, and 7). Visibly contaminated soil in the seven drum excavation areas and in the 10 underground storage tank excavations was removed to depths of eight to 13 feet below ground surface for on-site treatment and backfilling.

The sediments in the south and east drainage ditches and in the off-site impoundment south of the Site were excavated in October 1991 as an interim response action due to unusually dry conditions which allowed the sediments to be excavated without dewatering or having to re-route the ditches. The sediment was excavated to depths of six inches to two and a half feet based on visual observations. Approximately 2,250 cubic yards of sediment was removed (see Figure 8). The sediment did not require treatment and was placed back on Site under the soil cover on PIN 08-056-00-00-006-000.

On-Site Incineration to treat the excavated soil and sediment using a mobile rotary kiln incinerator prior to backfilling. The treatment residuals were tested in 500-ton batches to ensure that the remaining concentrations of organic contaminants in the treated material did not exceed a cancer risk of 3×10^{-5} based on a residential exposure scenario and that inorganic contaminants did not exceed Toxicity Characteristic Leaching Procedure (TCLP) test data for metals required by 40 C.F.R. § 261.24. Five batches of incinerated material required re-treatment for organic contaminants prior to backfilling. None of the soil batches failed the criteria based on TCLP metal concentrations.

Backfilling Treatment Residuals, Re-Grading the Site, and Installing a Permeable Soil Cover over 10.6 acres of the original Site property (10.6 acres of PIN 08-056-00-00-006-000). The permeable cover consists of 18 inches of loam covered by six inches of top-soil and a vegetative layer.

Construction of a Groundwater Containment and Extraction System consisting of a pipe and media wet-well drain system along the southern boundary and the southern portions of the east and west boundaries of the Site at the approximate base of the water table unit. Six groundwater extraction wells were also installed in the intermediate aquifer unit adjacent to the pipe and media drain (see Figure 1). The groundwater from the extraction wells and pipe and media drain flowed into a wet well. The bottom of the wet well was approximately nine feet below the inlet from the pipe and media drain. Two pumps located in the wet well pumped the collected groundwater to the groundwater treatment system and maintained the water level in the wet well to an elevation approximately 1.5 to three feet below the pipe and drain media inlet. The estimated steady-

state inflow of the collection system was calculated to be approximately 30 to 42 gallons per minute (gpm).

Shortly after construction, in May 1995, an evaluation of the groundwater collection system indicated that the extraction wells were not providing an effective area of horizontal capture due to the low permeability of the intermediate aquifer unit. The combined extraction rate of all six wells was 2.5 gpm. The data also indicated that continued operation of the extraction wells could draw contaminated groundwater from the water table unit deeper into the aquifer. The evaluation also indicated that the pipe and media drain induced an upward gradient from the intermediate unit into the drain. This indicated that the pipe and media drain might be able to control the groundwater contaminants in the intermediate unit without the extraction wells.

The extraction wells were permanently shut down and replaced with 12 additional groundwater monitoring wells in the intermediate unit and the upper Sharon aquifer to provide additional tracking of the groundwater contaminants in these zones. These 12 well were in addition to the other 58 wells and piezometers installed during the RA (see below).

Constructing an On-Site Groundwater Treatment System to treat the contaminated groundwater. The system was designed with an influent rate of 100 gallons per minute and consisted of aeration, pH adjustment, solids removal, biological degradation (by-passed at organic loadings below 1 mg/l), media filtration, and activated carbon filtration. Treated groundwater was discharged to the surface water drainage ditch at the northeast boundary of the Site in accordance with the substantive requirements of an OEPA permit dated May 18, 1994.

Collecting and Treating Surface Water from the two on-site ponds and drainage ditches in the on-site groundwater treatment facility. Filling and regrading to eliminate the on-site ponds and ditches.

Abandonment of all but Three Existing Groundwater Monitoring Wells and Piezometers and the Installation of 39 New Wells and 19 Piezometers at the Site including: 17 monitoring wells and six piezometers in the water table unit; nine monitoring wells and seven piezometers in the upper intermediate unit; nine monitoring wells and six piezometers in the lower intermediate unit; and four monitoring wells in the upper Sharon unit.

A potable water supply well was installed in the Sharon aquifer in an upgradient area of the Site near Route 224 to provide clean water for use during RA construction and in the groundwater treatment building. The 1995 Operation, Maintenance, and Monitoring Plan (OMMP) (updated on September 24, 2013) specifies that this well will only be used for cleaning and maintenance purposes and for the emergency shower, and that drinking water will be provided by bottled water.

Demolition of the Vacant Residence located immediately east of the Site and abandonment of the residential well.

7.2.2 1999 Interim Remedial Action Evaluation

SNFT submitted an Interim Evaluation of Remedial Action report in 1999 to evaluate the groundwater collection and treatment system after five years of operation. The 1999 report concluded:

- The groundwater data demonstrates that the pipe and media drain groundwater collection system provides effective hydraulic containment of the groundwater in the water table unit at the Site boundary. The system also continues to provide an upward hydraulic gradient from the upper intermediate unit into the water table unit along the southern Site boundary and sections of the east and west Site boundaries.
- No groundwater contaminants have been detected off-site.
- The volume of groundwater collected and treated at the on-site treatment system is about 20 gpm, which is significantly less than the predicted flow rate of 36 gpm.
- The groundwater collection system has had a minimal effect on contaminant concentrations in the groundwater. Chemical concentrations in the influent have not increased as expected. This indicates that the groundwater beneath the Site is not moving and that the groundwater with the highest levels of contamination is not being drawn into the system.
- The groundwater treatment system is effectively treating the collected groundwater in compliance with the OEPA May 18, 1994 Substantive Permit for the Site. However, iron, which is not a Site-related contaminant, is the primary constituent being treated.
- Influent concentrations are not high enough to require biological treatment. The aeration/equalization tank is capable of effectively removing the low levels of VOCs in the groundwater to below OEPA-allowable discharge concentrations, eliminating the need for aqueous carbon treatment.
- Iron concentrations in the influent groundwater (approximately 50,000 µg/l) are below the background concentration of iron which is about 100,000 µg/l. However, the OEPA May 18, 1994 Substantive Permit discharge criterion for iron is 1,000 µg/l. The groundwater treatment system is primarily being operated to remove iron, which is due to background conditions and is not related to previous waste disposal activities.

7.2.3 2005 Groundwater Migration Evaluation and System Shut Down

SNFT continued to operate the groundwater collection and treatment system at the Site until 2005 (10 years total). In 2005, the groundwater conditions remained largely unchanged and OEPA approved SNFT's Work Plan for Groundwater Migration Evaluation. The 2005 Work Plan concluded that the windrows of the previous strip mine operation at the Site which were excavated to the complete depth of the overburden soils, cause barriers to the groundwater flow and contaminant migration in the water table unit at the Site. The purpose of the 2005 Groundwater Migration Evaluation was to assess whether the

wet well pumps in the pipe and media drain could be shut down to allow the remaining contaminants in the groundwater to naturally attenuate.

The 2005 Work Plan required the wet well pumps in the pipe and drain system to be reactivated if Site-related contaminants were detected above MCLs in quarterly groundwater samples collected from off-site sentinel wells MW-114 and MW-115. The sentinel wells are located 70 to 80 feet south of the southern Site boundary and are within the influence of the pipe and drain system. Groundwater monitoring samples were also collected from 49 other on-site and off-site wells during the one-year post-shutdown period.

The results of Groundwater Migration Evaluation were reported in the August 2006 Groundwater Monitoring Report dated January 19, 2007. The monitoring confirmed that no Site-related groundwater contaminants were detected beyond the Site boundary at concentrations above MCLs. Eight of the 19 groundwater monitoring wells in the water table unit, nine of the 12 wells in the upper intermediate unit, 11 of the 14 wells in the lower intermediate unit, and five of the six wells in the upper Sharon unit were purged dry. The wells recovered sufficiently for samples to be collected but this indicates that there is very little groundwater movement in the groundwater units. The pumps in the pipe and media drain were allowed to remain off.

In 2010, EPA and OEPA agreed to allow SNFT to evaluate other contingency actions to be implemented in the event VOCs are detected above MCLs in off-site sentinel wells MW-114 and MW-115. These include a restart of the groundwater collection system, implementation of in-situ chemical oxidation to treat the groundwater, phytoremediation, and other response actions.

Sixteen years of groundwater monitoring conducted since the groundwater collection system was shut down in 2005 confirms that groundwater contaminants have not migrated off-site at concentrations above MCLs and that the system can remain shut down. SNFT will continue to monitor the groundwater under EPA and OEPA oversight in accordance with the approved sampling plans until the groundwater is restored to drinking water levels (see Section 8.0, Cleanup Levels below).

8.0 Cleanup Levels

The cleanup levels for the Summit National Site are based on reducing the risks from exposure to contaminated soil, sediment, and groundwater to a cancer risk of 3×10^{-5} and a non-cancer HI = 1 or less under a reasonable maximum residential exposure scenario for each medium.

The on-site and off-site soil and on-site sediments in the east and west ponds were excavated to a depth of 2 feet in designated grids based on the analytical data collected during the RI that corresponded to a residential cancer risk of 3×10^{-5} or greater. The excavation of these materials would also address any less-significant non-cancer risks.

Treated soil and sediment was tested and required to attain a corresponding cancer risk of 3×10^{-5} or less under a residential exposure scenario for organic chemicals and to meet TCLP criteria for inorganic chemicals prior to being backfilled on-site under the soil cover. Air emissions from the incinerator were required to attain a corresponding cancer risk of 1×10^{-5} and a non-cancer HI = 1 or less.

Cleanup levels were not established for soil greater than 2 feet below ground surface. However, visibly contaminated soil in the drum and underground storage tank excavations was removed to depths of eight to 13 feet below ground surface and treated.

The sediments in the south and east drainage ditches and in the off-site impoundment south of the Site did not exceed the cancer risk-based cleanup level but posed an unacceptable non-cancer risk to children playing in the ditches due to an elevated detection of antimony. The sediments were excavated to a depth of six inches to two and a half feet based on visual observations and placed under the on-site soil cover. The sediments did not require treatment because there is not a TCLP criterion for antimony.

The 1988 ROD Amendment requires on-site and off-site groundwater to be cleaned up to "acceptable levels". The 1991 Consent Decree specifies that the cleanup levels for groundwater contaminants shall correspond to concentrations that would not exceed an individual cancer risk of 1×10^{-6} or a non-cancer HI = 1. Based on these requirements, the cleanup levels for groundwater were set as EPA's Regional Screening Levels (RSLs) for Target Compound List (TCL) VOCs, Semivolatile Organic Compounds (SVOCs), and PCBs/pesticides, and Target Analyte List (TAL) inorganic chemicals and cyanide in residential tapwater based on contaminant concentrations that would not exceed an individual cancer risk of 1×10^{-6} or a HI = 1 (see Table 2). In April 2010, EPA approved the elimination of the PCBs/pesticides analysis from the monitoring program based on the findings of the 2009 Five-Year Groundwater Monitoring Report.

Documentation of the on-site and off-site soil and on-site sediment cleanup is provided in the 1995 Remedial Action Report, in Appendix C, Construction Report – Soil Removal and Treatment. Documentation of the off-site sediment removal is provided in the 1991 Construction Report, Sediment Removal Interim Response Action.

Contaminant levels in off-site groundwater are below drinking water standards. However, the on-site groundwater is undergoing a long-term cleanup and is not expected to attain cleanup levels for several years. As a result, the groundwater portion of the Site does not meet EPA's deletion criteria and will remain on the NPL. The sediments in the drainage ditches located beyond the fence line south and east of the Site were remediated during an interim response action conducted in 1991. However, because shallow groundwater may discharge to the ditches, the surface water and sediment portions of the Site will remain on the NPL until the long-term groundwater cleanup is complete.

9.0 Institutional Controls (ICs)

EPA's selected remedy for the Site in the 1990 ROD Amendment includes ICs to control future use of the Site. On June 5, 2013, EPA and the owner of the original Site property that includes the soil cover portion of the Site (PIN 08-056-00-00-006-000) recorded an Environmental Covenant that restricts land and groundwater use at the property. The Environmental Covenant conforms to the Ohio Uniform Environmental Covenants Act and:

- Prohibits the Site property to be used in any manner that would interfere with or adversely affect the integrity or the protectiveness of the remedial action implemented pursuant to the Consent Decree unless the written consent of EPA is obtained. The Owner's agreement to restrict the use of the Site property shall include, but not be limited to, not permitting any filling, grading, excavating, building, drilling, mining, farming, or other development on property on the Restricted Area unless the written consent of EPA is obtained.
- There shall be no consumptive use of Site groundwater, including the use, extraction, or development of groundwater, until the cleanup standards are achieved.
- There shall be no use of surface water contained within the Site for any purpose.
- There shall not be any inconsistent uses on the Site that will interfere with the remedial action or harm the integrity of the remedy components.
- Provides EPA, OEPA, and the Settling Defendants in the 1991 Consent Decree with access to the property for the purpose of conducting any activity related to the Consent Decree or the purchase of the Site.

The property restrictions are enforceable by EPA, run with the land, and are binding on future owners and their respective successors, assigns and transferees.

A portion of the Site fence extends up to approximately 50 feet south of the original Site property onto PIN 08-056-00-00-007-000. This fenced-in portion of the Site encompasses a segment of the pipe and drain groundwater collection system, a manhole, and a few monitoring wells and piezometers (see Figures 1 and 2). The remedial components on this portion of the Site are covered by an Access Easement recorded on September 11, 1991, and do not require an Environmental Covenant.

The off-site areas beyond the fence line on PIN 08-056-00-00-007-000 south of the Site and on PIN 08-056-00-00-005-000 east of the Site were remediated to levels acceptable for UU/UE and do not require ICs. Groundwater and surface water monitoring is also conducted annually to confirm that Site-related contaminants are not impacting these properties (see Figures 2 to 4).

10.0 Operation and Maintenance (O&M)

SNFT performs O&M at the Summit National Site in accordance with the 1995 OMMP and a 1996 revised Quality Assurance Project Plan (QAPP). On September 24, 2013, SNFT issued

a letter updating the OMMP to include LTS procedures to ensure proper monitoring and enforcement of the Site ICs. On March 8, 2021, the groundwater sampling methods in Section 12.4.3.3 of the 1996 QAPP were updated to include low-flow groundwater sampling methods.

SNFT operated the groundwater collection and on-site groundwater treatment system at the Site in accordance with the 1995 OMMP from November 1995 through August 2005. The primary activities during that time included:

- Operation, maintenance, and monitoring of the groundwater collection system, groundwater treatment system, and treated water discharge system,
- Groundwater, surface water and sediment sampling,
- Hydraulic monitoring, and
- Inspection and maintenance of the Site cover, monitoring well network, access roads, and fence.

Since the shutdown of the groundwater collection and treatment system in August 2005, the primary O&M activities at the Site are annual groundwater, surface water, and sediment sampling; hydraulic monitoring; inspection and maintenance of the Site cover, monitoring well network, access roads, and fence; and LTS of the Site ICs.

The groundwater treatment plant monitoring consisted of monthly influent and treated effluent sampling and analysis and recording daily flow rates. The results were submitted to EPA and OEPA monthly through August 2005. Groundwater quality monitoring was conducted at startup and twice a year for the first five years of operation, then annually thereafter. Groundwater hydraulic monitoring was performed monthly for the first year of operation, then quarterly through August 2005, then twice a year through 2008, and annually since 2009. Surface water and sediment samples were also collected annually at the confluence of the south and east drainage ditches.

For the first three rounds of groundwater monitoring, the groundwater samples were analyzed for a full TCL/TAL analysis. Based on the results, a site-specific indicator parameter list (SSIPL) was developed and approved by EPA and OEPA. Since development and approval of the SSIPL, the groundwater monitoring program includes annual sampling at a subset of on-site and downgradient groundwater monitoring wells in the water table and upper intermediate groundwater units, with the samples analyzed for the SSIPL, except that every fifth year all groundwater monitoring wells in the monitoring well network (51 wells) is sampled for a full TCL/TAL analysis. The on-site water supply well and three residential wells are also sampled during the five-year sampling event.

The wells sampled during the routine annual monitoring events include eight wells in the water table unit [on-site wells MW-11, MW-107, MW-108, MW-111, and MW-113, and downgradient off-site wells MW-4, MW-114 (sentinel), and MW-115 (sentinel)] and 4 wells in the upper intermediate unit (on-site wells MW-207 and MW-224, and downgradient off-site wells MW-209 and MW-220).

In 2010, EPA and OEPA approved the discontinuation of the PCB/pesticide analysis based on SNFT's 2009 Five-Year Groundwater Monitoring Report. In 2020, based on SNFT's 2019 Five Year Groundwater Monitoring Event Report, EPA and OEPA approved the discontinuation of sediment sampling because the only chemicals detected in the sediments were PAHs at concentrations well below EPA's Regional Screening Levels (for residential soil) and associated with past coal-mining activities at the Site.

On September 24, 2013, SNFT submitted a letter update to the 1995 OMMP to include LTS procedures for the Site ICs. These include:

1) On a quarterly basis, SNFT will inspect the Site ICs listed in Table 6 of the 2013 FYR, Summary of Institutional Controls for Restricted Areas. The inspection will be noted on Quarterly Institutional Controls Inspection Reports. Copies of the inspection reports will be filed on-Site.
2) A certified statement by SNFT to EPA will be included in the annual groundwater monitoring report to acknowledge the ICs and their effectiveness.

EPA and OEPA agreed that the use of a communication plan and a one-call system was not necessary for LTS because Site contact information is provided on the gate, routine Site inspections are conducted, and because the groundwater extraction and treatment system is no longer operational.

SNFT submits annual and five-year groundwater monitoring reports and other reports to EPA and OEPA on a regular basis. SNFT conducted five-year sampling events in 1999, 2004, 2009, 2014, and 2019. SNFT's next five-year sampling event is scheduled for 2024. SNFT certifies that the ICs are in place in the annual and five-year groundwater monitoring reports. SNFT submitted the most recent reports - the 2019 Five-Year Groundwater Monitoring Report and the 2021 Annual Monitoring Results - on January 21, 2020 and November 2, 2021, respectively.

11.0 Five Year Reviews (FYRs)

EPA conducts FYRs at sites to determine whether a cleanup remains protective of human health and the environment over the long-term or whether additional investigations or cleanup actions may be warranted. The review methods, findings, and conclusions are documented in FYR reports. EPA identifies any site issues found during the review in the FYR report with recommendations to address the issues.

EPA and OEPA have conducted five FYRs of the remedial actions implemented at the Summit National Site. These reviews are statutory reviews and are required because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for UU/UE. EPA completed the fifth FYR for the Site on July 13, 2018.

EPA's 2018 FYR did not identify any issues for the Site. The only finding of the FYR was that the permanent label identifications on the monitoring wells were hard to read and should be replaced.

The 2018 FYR determined that the remedy at the Summit National Site is protective of human health and the environment because exposure pathways to contaminated groundwater are being controlled and exposure to contaminated soil at the Site has been addressed by incinerating the most heavily contaminated soil, sending several hundred drums of waste off-site for disposal, applying a clean soil cover and a vegetative cover over the treatment residuals and remaining soil contamination, and by fencing the Site.

The 2018 FYR noted that all required ICs have been implemented at the Site through an Environmental Covenant under the Ohio Uniform Environmental Covenants Act recorded on June 5, 2013. LTS procedures are in place, and compliance with ICs is ensured by maintaining, monitoring, and enforcing the ICs.

The next FYR for the Site is due in July 2023.

12.0 Community Involvement

EPA and OEPA conducted public participation activities throughout all response actions for the Summit National Site, satisfying the provisions of CERCLA Sections 113(k) and 117, 42 U.S.C. §§ 9613(k) and 9617, and the NCP, 40 C.F.R. §§ 300.415(n), 300.430(f), 300.815, and 300.820.

Community concerns at the Site date back to 1973, when local residents who were concerned about air pollution from the incinerator at the waste disposal facility contacted OEPA. Citizen complaints increased in 1977 and 1978. In December 1978, 100 to 150 people attended a community meeting and hired an attorney to initiate legal actions against the Site operator.

In 1978, the Mahoning Valley Sanitary District (MVSD) became involved when its chief engineer became concerned about potential contamination of the Berlin Reservoir from the Site, which MVSD owned. MVSD engaged several state legislators to address the problem. In 1979, MVSD, OEPA, the Ohio Attorney General's office, a local community organization, and the area's state legislator, brought a large group of state legislators to the Site and the Berlin Reservoir. Shortly thereafter, the Ohio Legislature allocated emergency funds to stabilize the Site.

12.1 Community Involvement Plan

EPA proposed the Summit National Site to the NPL in 1982 and developed a Community Relations Plan for the Site at the start of the RI/FS in 1984. In 1990, EPA issued an updated Community Relations Plan to address the community involvement activities to be conducted during the Remedial Design/Remedial Action (RD/RA) phase. The Community

Relations Plans provided background information about the Site, a history of community involvement, a summary of key issues and community concerns, developed objectives and activities for engaging with the community, and outlined the timing of community involvement at points throughout the investigation and cleanup.

EPA established a local information repository for the Site where reports and other documents could be viewed at the U.S. Post Office located at 1365 Route 14, in Deerfield, Ohio. Later, the information repository was moved to the Reed Memorial Library, 167 E. Main Street, Ravenna, Ohio. Site documents are also available online on EPA's webpages for the Site at http://www.epa.gov/superfund/summit-national.

12.2 RI/FS and 1988 ROD

EPA mailed out fact sheets about the Site to people and organizations on the Site mailing list during the RI/FS in 1985 and 1986. In 1988, EPA issued a press release announcing the availability of EPA's FS Report and the proposed cleanup plan for the Site, the location of the information repository, the 30-day public comment period, and public meeting.

EPA accepted comments on its proposed cleanup plan from February 12, 1988 to March 21, 1988. On February 29, 1988, EPA held a meeting to present the FS and the proposed cleanup plan to the community. The meeting was held at the American Legion Hall in Deerfield, Ohio and was attended by about 150 people, the news media, and public officials. During the meeting, EPA described the cleanup alternatives that were evaluated for the Site and EPA's proposed cleanup plan. EPA answered questions about the Site and invited and accepted written comments on the proposed cleanup during the meeting. EPA responded to the written comments that were received during the meeting and the 30-day public comment period in a Responsiveness Summary attached to the 1988 ROD.

12.3 1990 ROD Amendment

EPA notified the public about the proposed ROD Amendment and 30-day public comment period in a newspaper advertisement published in the Ravenna Record-Courier on July 16, 1990. EPA mailed a fact sheet to residents and other individuals and organizations on the Site mailing list summarizing the differences between the 1988 ROD and the proposed ROD Amendment and notifying them about the public meeting and comment period. EPA held a public meeting in Deerfield on August 1, 1990 to discuss the proposed changes to the remedy and accept comments on the proposal.

EPA received public comments on the proposed ROD Amendment at the meeting and in writing from July 16, 1990 to August 17, 1990. In general, the public indicated concurrence with the proposed remedy. However, several people were concerned about the incineration at the Site. EPA responded to the comments that were received in a Responsiveness Summary and considered all comments before issuing a final ROD Amendment on November 2, 1990. In the Responsiveness Summary, EPA explained that by utilizing a state-of-the-art incinerator, and with careful monitoring of the incinerator and

off-site monitoring, incineration should not pose a problem for the community. Also, as indicated in Section 7.2.1, RA Construction above, due to the community's concerns, the drums and containers excavated from the Site during the cleanup were disposed of off-site instead of being incinerated in the on-site incinerator.

12.4 FYR Notices

OEPA notified the community about the 2003 FYR by publishing a notice in two local newspapers, the Alliance Review, and the Ravenna Record-Courier, on July 25, 2003. The notices described the cleanup at the Site, outlined the FYR process, and invited the public to call or write to OEPA with complaints, concerns, or questions about the Site. The ad also included information about how to obtain a copy of the FYR Report when it was completed. OEPA did not receive any responses to the notice.

EPA's activities to involve the community in the 2008, 2013 and 2018 FYRs for the Site were initiated with public notices in the Record-Courier newspaper on February 29, 2008, November 5, 2012, and February 20, 2018. The notices announced EPA's initiation of the FYRs and invited the public to contact EPA for additional information or with any questions or concerns about the Site. EPA was not contacted during the 2008 or 2013 FYRs. EPA responded to two requests from the public during the 2018 FYR.

EPA placed copies of the FYRs in the Site information repository located at Reed Memorial Library, 167 E. Main Street, Ravenna, Ohio, and online at http://www.epa.gov/superfund/summit-national.

13.0 Determination that Site Meets Criteria for Partial Deletion

The land/soil portion of the Summit National Site meets all of the site completion requirements specified in the Office of Solid Waste and Emergency Response (OSWER) Directive 9320.2-22, Close Out Procedures for National Priorities List Sites. All cleanup actions and RAOs for the land/soil portion of the Site set forth in the 1988 ROD, as amended in the 1990 ROD Amendment and the 1992 ESD, have been implemented for all pathways of exposure for the land/soil portion of the Site.

This partial deletion pertains to the land/soil portion of:

- The original Site property (PIN 08-056-00-00-006-000). This portion of the Site includes the former waste disposal operations area and soil cover.
- The fenced portion of the Site extending south onto adjacent property PIN 08-056-00-00-007-000 (up to approximately 50 feet); and
- The adjacent off-site soil areas that were remediated to levels acceptable for UU/UE beyond the fence line on PIN 08-056-00-00-007-000 south of the Site and PIN 08-056-00-00-005-000 east of the Site (see Figures 1 to 4).

The RAOs, selected remedial actions, and cleanup levels for the land/soil portion of the Site on these properties are consistent with EPA policy and guidance.

EPA's and OEPA's 1998, 2003, 2008, 2013, and 2018 FYRs confirm that the cleanup remedy for the land/soil portion of the Site is protective of human health and the environment. The excavation and off-site disposal of approximately 782 drums and containers, the emptying and closing of 10 underground storage tanks, the excavation and treatment of on-site and off-site soil and sediment posing a residential cancer risk of 3×10^{-5} or greater to a depth of two feet below ground surface, backfilling the treated material on-site under a 24-inch soil and vegetative cover on the original Site property (PIN 08-056-00-00-006-000), fencing the Site, and implementation of ICs effectively address the principal threats at the Site and limit exposure to the remaining contaminants in the land/soil media. The fence and soil cover are regularly inspected and maintained, and land and groundwater use at the Site is controlled and monitored through LTS of an enforceable Environmental Covenant.

The response actions taken for the land/soil portion of the Summit National Site are protective of human health and the environment. Therefore, the taking of additional remedial measures for this portion of the Site is not appropriate. No further Superfund response is necessary for the land/soil portion of the Site other than continued O&M, LTS of ICs, and FYRs for the fenced portion of the Site. The land/soil portion of the adjacent off-site areas beyond the fence line were remediated to levels acceptable for UU/UE and do not require O&M, ICs, or FYRs.

The groundwater portion of the Site is still undergoing a long-term cleanup and will remain on the NPL. The sediments in the drainage ditches located beyond the fence line south and east of the Site were remediated during the 1995 remedial action. However, because shallow groundwater may discharge to the ditches, the surface water and sediment portions of the Site will remain on the NPL until the long-term groundwater cleanup is complete.

Section 300.425(e) of the NCP, 40 C.F.R. § 300.425(e), states that a Superfund site or a portion of a site may be deleted from the NPL when no further response action is appropriate. EPA, in consultation with the State of Ohio, has determined that all required response actions have been implemented for the land/soil portion of the Summit National Site, and that no further response action other than O&M, LTS of ICs, and FYRs for the fenced area of the Site located on PINs 08-056-00-00-006-000 and 08-056-00-00-007-000 is appropriate for the land/soil portion of the Site. OEPA sent EPA a letter concurring with EPA's proposed deletion of the land/soil portion of the Site on December 7, 2021.

14.0 Approval

Approved by:

1/31/2022

X 

Douglas Ballotti, Director
Superfund & Emergency Management Division
Signed by: DOUGLAS BALLOTTI

U.S. EPA, Region 5

Figure 1: Summit National Site

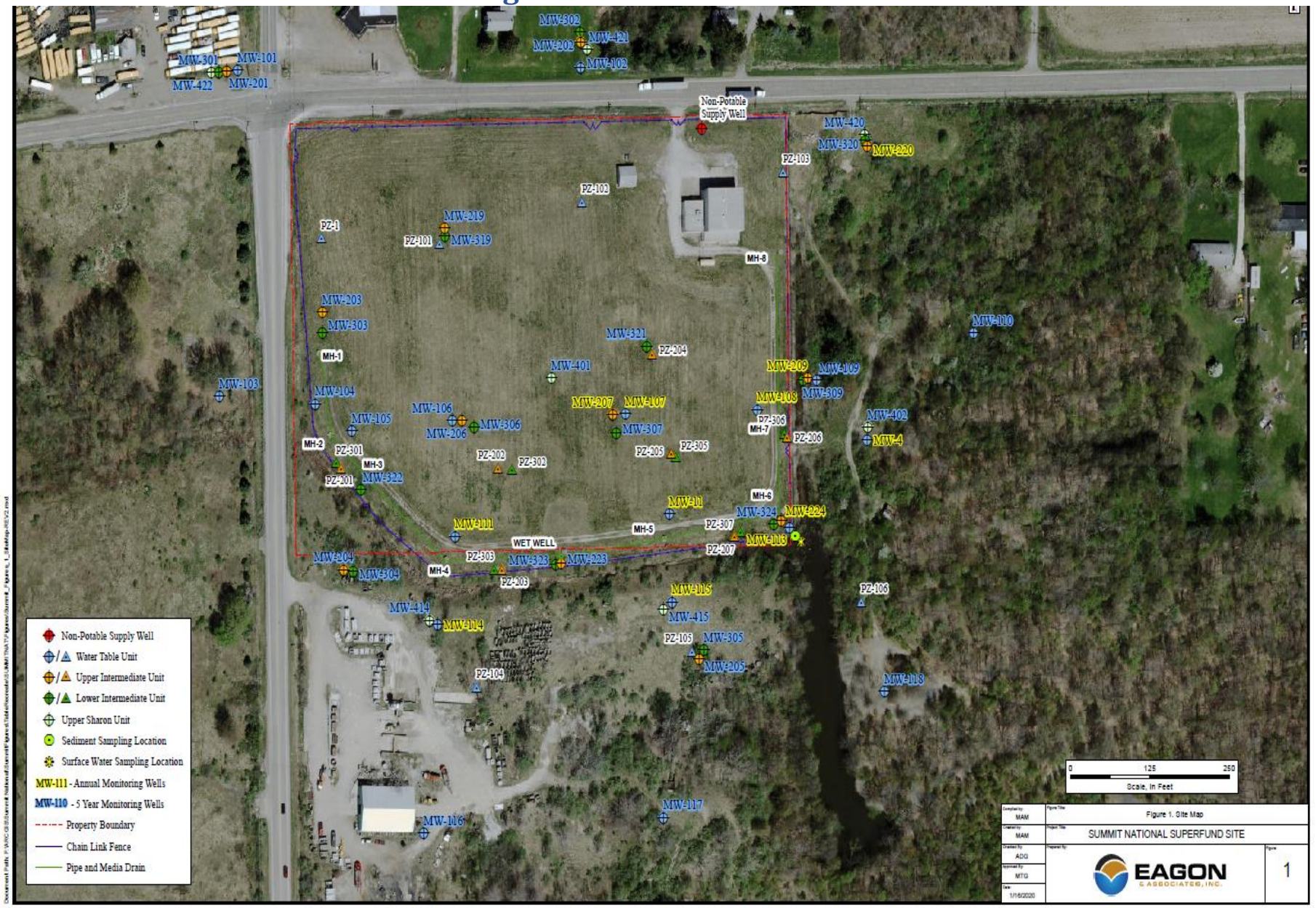

Figure 2: Summit National Site and Adjacent Off-Site Properties

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Notes

Summit National Superfund Site (PIN 008-056-00-00-006-000) and adjacent properties (PIN 08-056-00-00-005-000 to east and PIN 08-056-00-00-007-000 to south).

Figure 3: On-Site and Off-Site (to South) Soil Excavation Areas

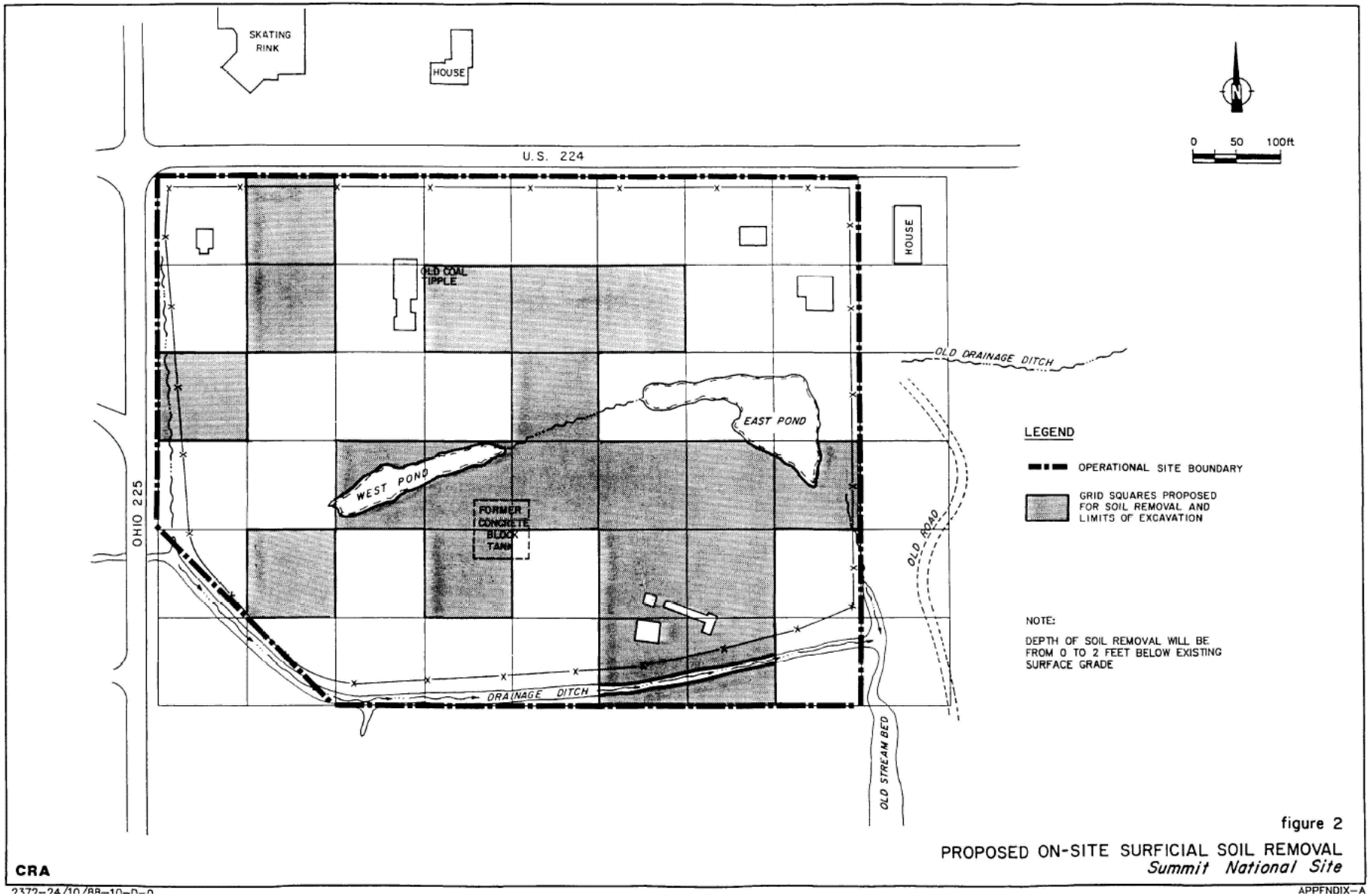


Figure 4: Off-Site Soil Excavation Areas (to East)

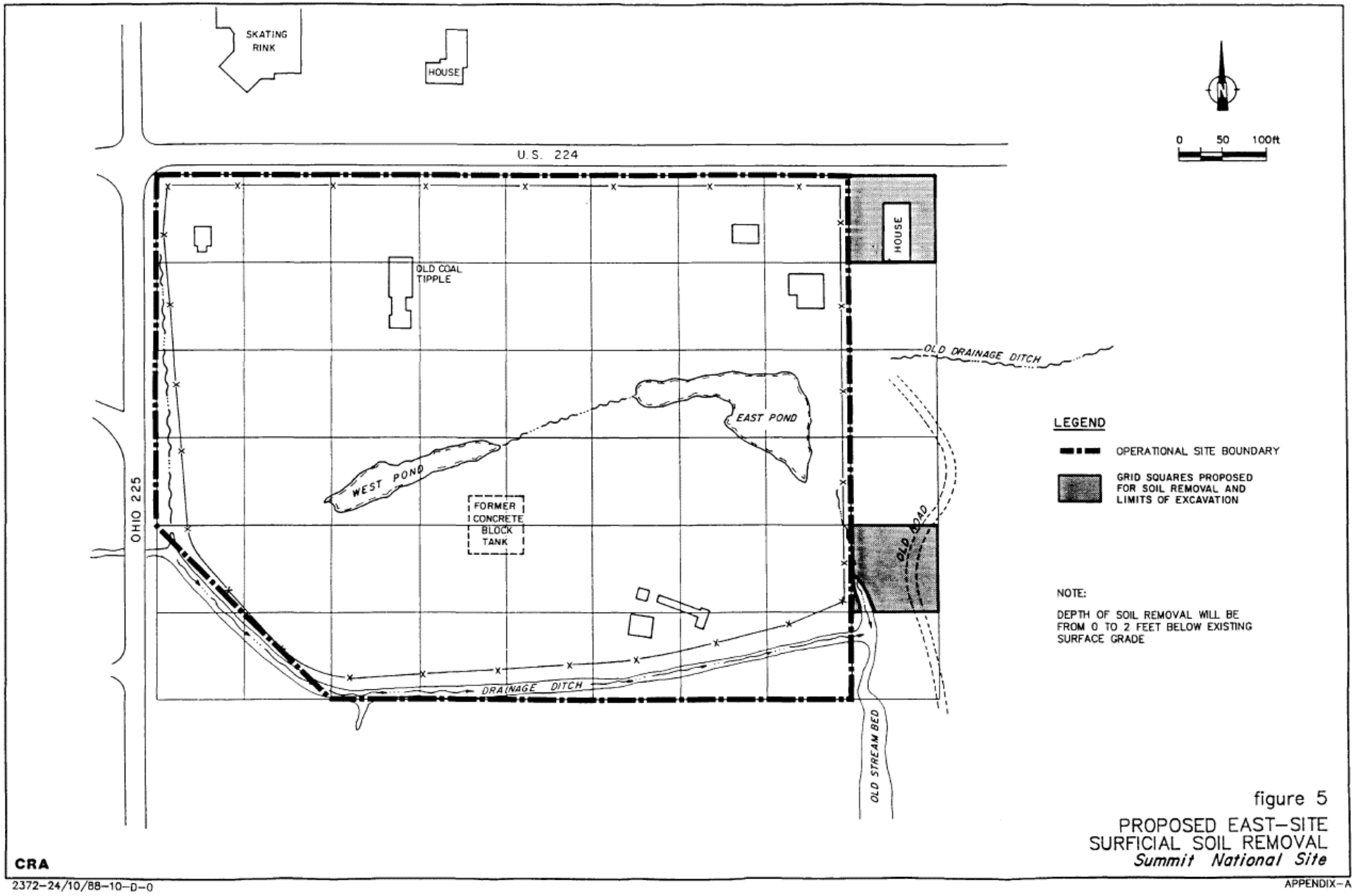


Figure 5: East-West Cross Section

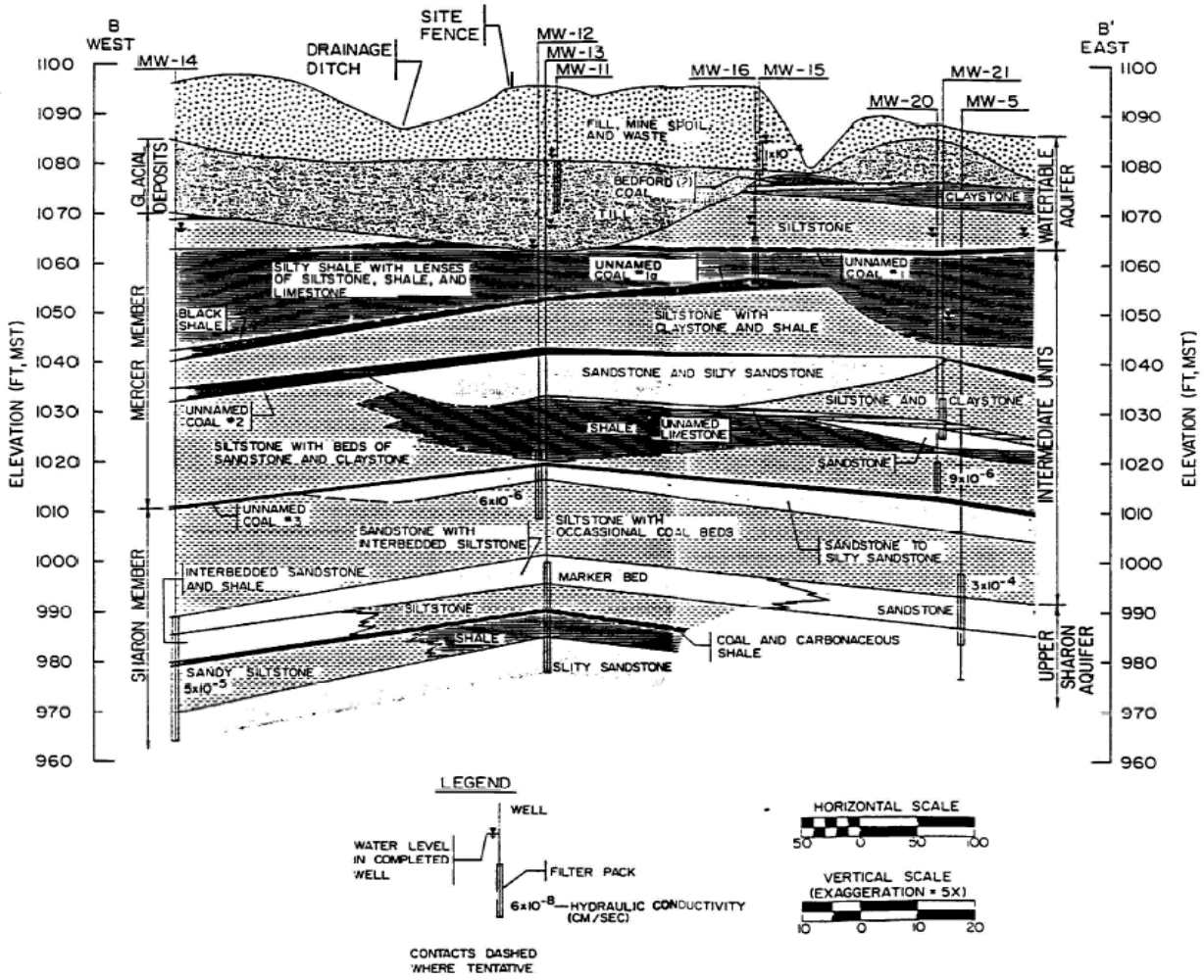
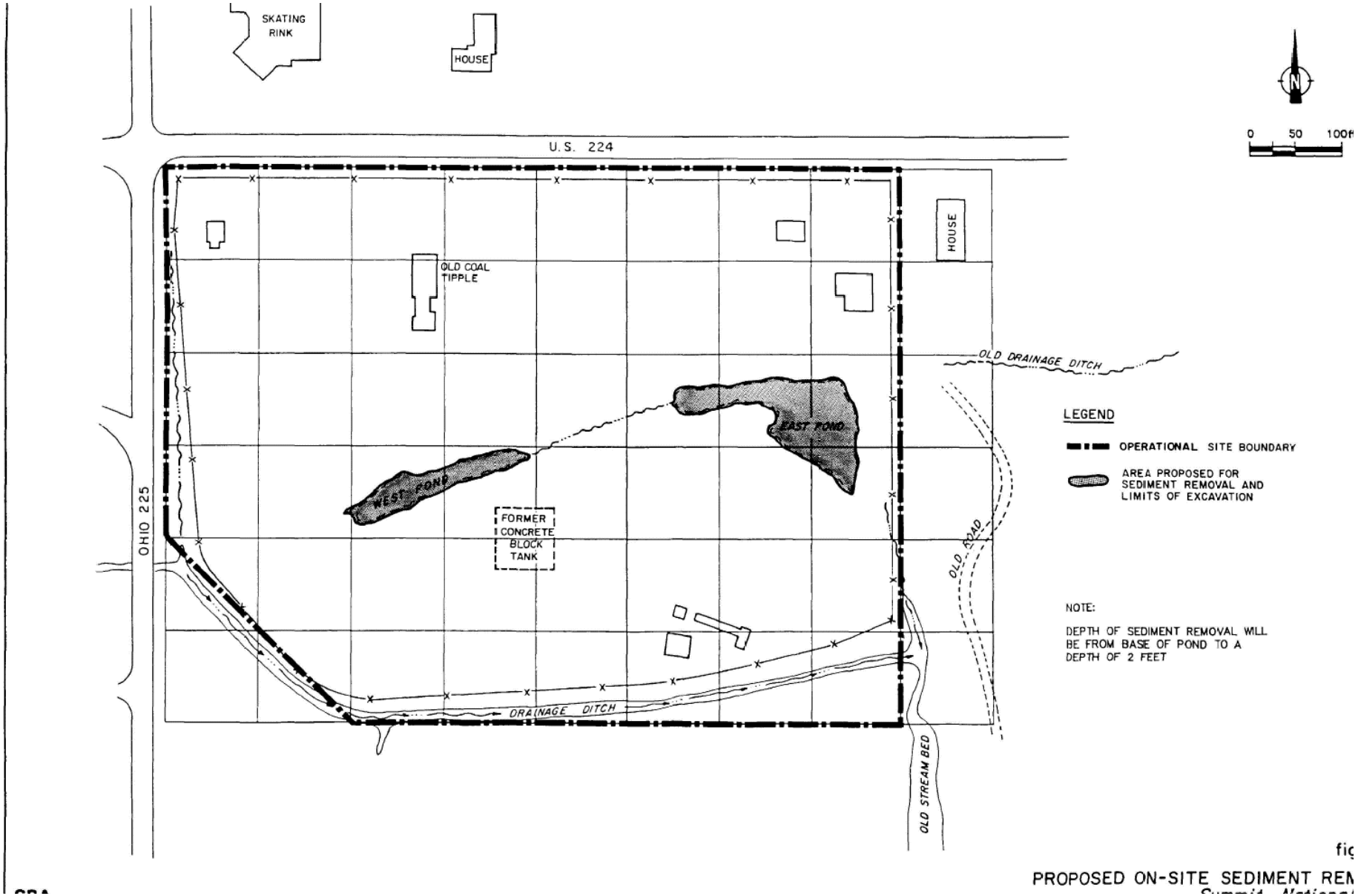


FIGURE 4 - 2b
GEOLOGIC SECTION B - B
SUMMIT NATIONAL RI

Figure 6: On-Site Sediment Excavation



fig

PROPOSED ON-SITE SEDIMENT REM

Figure 7: On-Site Drum and Tank Removal Areas

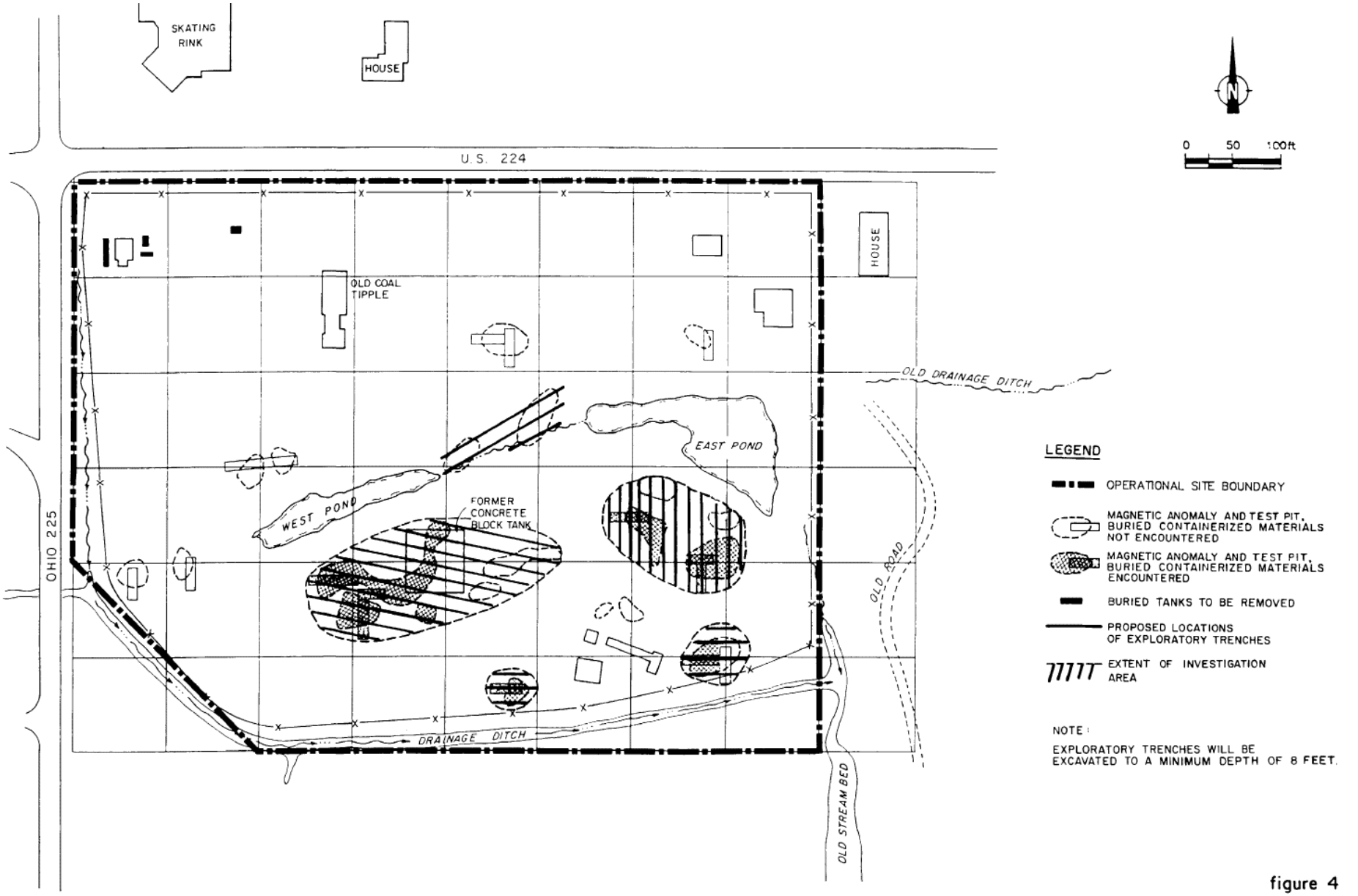


Figure 8: Off-Site Sediment Excavation

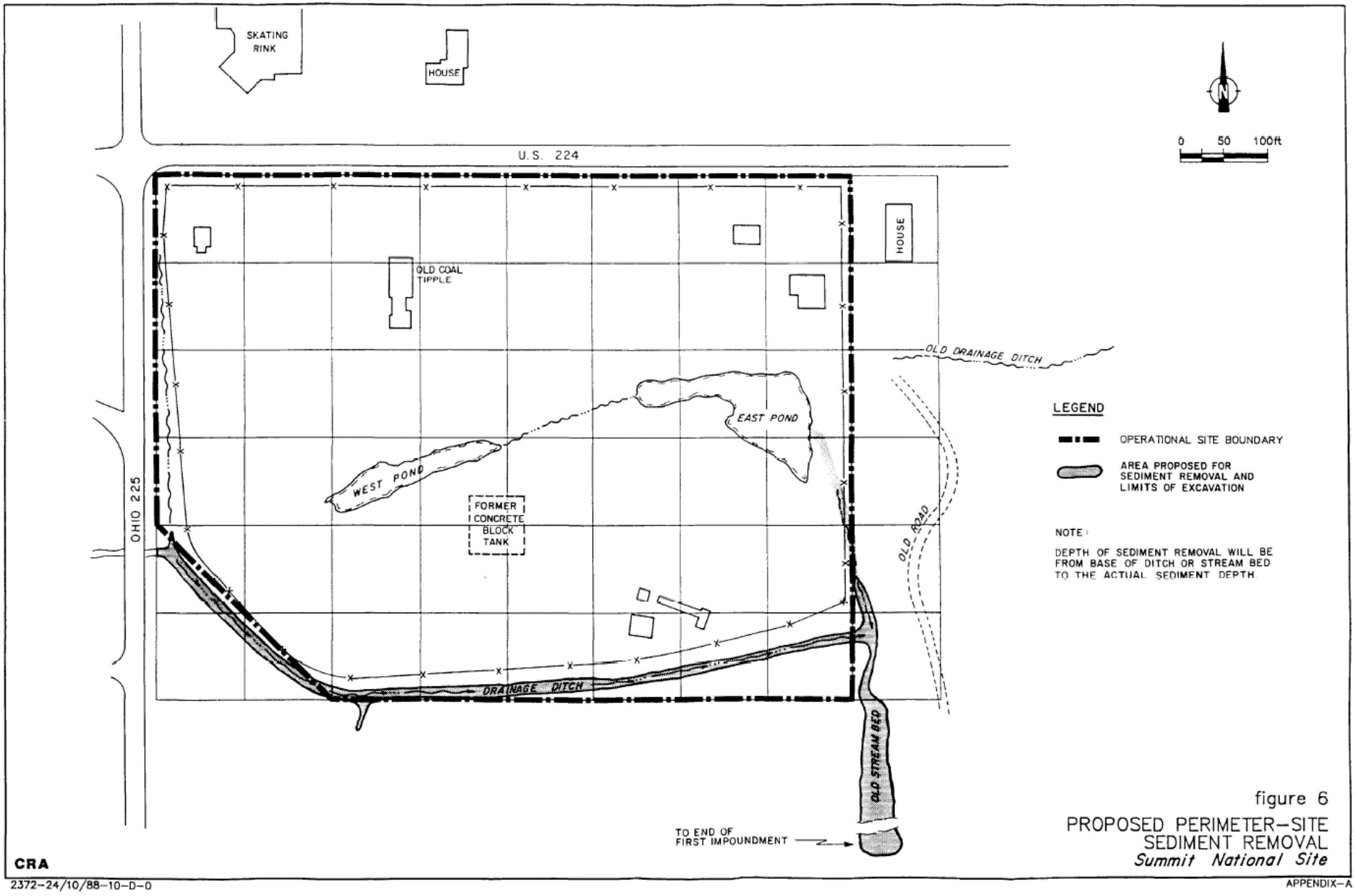


Table 1: Risk Assessment Summary

SUMMARY OF POTENTIAL RISKS ASSOCIATED WITH THE SUMMIT NATIONAL SITE

	Total Cancer Risks		Noncarcinogenic Hazard Index	
Exposure Scenario	Average	Plausible Maximum	Average	Plausible Maximum
Current Conditions - Soil				
On-site trespassers	1×10^{-8}	3×10^{-5}	<1	<1
Off-site workers (southern perimeter)	6×10^{-7}	4×10^{-5}	<1	<1
Off-site residents (eastern perimeter)	3×10^{-6}	2×10^{-4}	<1	<1
Current Conditions - Sediment				
Children in ditches	2×10^{-7}	6×10^{-6}	<1	>1
Teenagers in second impoundment	6×10^{-12}	1×10^{-7}	<1	<1
Future Conditions				
On-site workers				
Soil	2×10^{-7}	2×10^{-4}	<1	<1
Groundwater				
Water Table	5×10^{-5}	3×10^{-2}	>1	>1
Intermediate Unit	2×10^{-5}	1×10^{-3}	<1	>1
Upper Sharon Aquifer	4×10^{-9}	NA	<1	NA
On-site residents				
Soil	1×10^{-5}	5×10^{-3}	<1	>1
Groundwater				
Water Table	1×10^{-3}	3×10^{-1}	>1	>1
Intermediate Unit	4×10^{-4}	2×10^{-2}	<1	>1
Upper Sharon Aquifer	8×10^{-8}	NA	<1	NA

NA = not applicable, only one representative sample.

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Table 2: Groundwater Cleanup Levels (EPA RSLs)

Parameter	Toxicological Class (1) 1986	1996	1999	2005	(SF_o) Oral Cancer Slope Factor (2) 1/(mg/kg-day)	(RfD) Oral Reference Dose (3) (mg/kg-day)	(RSL) Regional Screening Level For Individual Compounds Based On 1.0 x 10^{-6} Risk (4) THQ = 1.0 (ug/L)
Volatile Organic Compounds:							
1,1,1-Trichloroethane; Methylchloroform	D			I	NV	2.00E+00	NV
1,1,2,2-Tetrachloroethane	C			L	2.00E-01	2.00E-02	7.60E-02
1,1,2-Trichloroethane	C				5.70E-02	4.00E-03	2.80E-01
1,1-Dichloroethane; Ethylidene Chloride	C				5.70E-03	2.00E-01	2.80E+00
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene Chloride	C				NV	5.00E-02	NV
1,2-Dichloroethane; Ethylenedichloride	B2				9.10E-02	6.00E-03	1.70E-01
1,2-Dichloroethylene; 1,2-Dichloroethene					NA	NA	NA
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene					NV	2.00E-03	NV
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene					NV	2.00E-02	NV
1,2-Dichloropropane; Propylenedichloride	B2				3.70E-02	4.00E-02	8.50E-01
cis-1,3-Dichloropropene (5)					1.00E-01	3.00E-02	4.70E-01
trans-1,3-Dichloropropene (5)					1.00E-01	3.00E-02	4.70E-01
2-Hexanone; Methyl butyl ketone			S	I	NV	5.00E-03	NV
Acetone; 2-Propanone	D		S		NV	9.00E-01	NV
Benzene	A	K			5.50E-02	4.00E-03	4.60E-01
Bromodichloromethane; Dichlorobromomethane	B2				6.20E-02	2.00E-02	1.30E-01
Bromoform; Tribromomethane	B2				7.90E-03	2.00E-02	3.30E+00
Bromomethane; Methyl bromide	D				NV	1.40E-03	NV
Carbon Disulfide					NV	1.00E-01	NV
Carbon Tetrachloride	B2			L	7.00E-02	4.00E-03	4.60E-01
Chlorobenzene	D				NV	2.00E-02	NV
Chloroethane; Ethyl Chloride					NV	NV	NV
Chloroform; Trichloromethane	B2		L/N		3.10E-02	1.00E-02	2.20E-01
Chloromethane; Methyl chloride	D	P			NV	NV	NV
Dibromochloromethane; Chlorodibromomethane	C			L	8.40E-02	2.00E-02	8.70E-01
Ethylbenzene	D				1.10E-02	1.00E-01	1.50E+00
Methyl ethyl ketone; MEK; 2-Butanone	D		S		NV	6.00E-01	NV
Methyl isobutyl ketone; MIK; 4-Methyl-2-pentanone					NV	NV	NV
Methylene chloride; Dichloromethane	B2				2.00E-03	6.00E-03	1.10E+01
Styrene; Ethenylbenzene					NV	2.00E-01	NV
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	B2			L	2.10E-03	6.00E-03	1.10E+01
Toluene; Methylbenzene	D			I	NV	8.00E-02	NV
Trichloroethylene; Trichloroethene	B2			K	4.60E-02	5.00E-04	4.90E-01
Vinyl Acetate					NV	1.00E+00	NV
Vinyl Chloride	A	K			7.20E-01	3.00E-03	1.90E-02
Xylene (total)	D		S		NV	2.00E-01	NV
m-Xylene	D				NV	2.00E-01	NV
o-Xylene	D				NV	2.00E-01	NV
p-Xylene	D				NV	2.00E-01	NV
Semi-Volatile Organic Compounds:							
1,2,4-Trichlorobenzene	D				2.90E-02	1.00E-02	1.20E+00
1,2-Dichlorobenzene; o-Dichlorobenzene	D				NV	9.00E-02	NV
1,3 Dichlorobenzene; m-Dichlorobenzene	D				NA	NA	NA
1,4-Dichlorobenzene; p-Dichlorobenzene					5.40E-03	7.00E-02	4.80E-01
2,4,5-Trichlorophenol					NV	1.00E-01	NV
2,4,6-Trichlorophenol	B2				1.10E-02	1.00E-03	4.10E+00
2,4-Dichlorophenol					NV	3.00E-03	NV
2,4-Dimethylphenol; m-Xylenol					NV	2.00E-02	NV
2,4-Dinitrophenol					NV	2.00E-03	NV
2,4-Dinitrotoluene; 1-Methyl-2,4-dinitrobenzene	B2				3.10E-01	2.00E-03	2.40E-01
2,6-Dinitrotoluene; 2-Methyl-1,3-dinitrobenzene	B2				1.50E+00	3.00E-04	4.90E-02
2-Chloronaphthalene; 2-Naphthyl chloride; beta-Chloronaphthalene					NV	8.00E-02	NV
2-Chlorophenol					NV	5.00E-03	NV

Table 2 - *Continued*: Groundwater Cleanup Levels (EPA RSLs)

Parameter	Toxicological Class (1) 1986	1996	1999	2005	(SF_o) Oral Cancer Slope Factor (2) 1/(mg/kg-day)	(RfD) Oral Reference Dose (3) (mg/kg-day)	(RSL) Regional Screening Level For Individual Compounds Based On 1.0×10^{-6} Risk (4) THQ = 1.0 (ug/L)
Volatile Organic Compounds							
1,1,1-Trichloroethane; Methylchloroform	D			I	NV	2.00E+00	NV
1,1,2,2-Tetrachloroethane	C			L	2.00E-01	2.00E-02	7.60E-02
1,1,2-Trichloroethane	C				5.70E-02	4.00E-03	2.80E-01
1,1-Dichloroethane; Ethylidene Chloride	C				5.70E-03	2.00E-01	2.80E+00
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene Chloride	C				NV	5.00E-02	NV
1,2-Dichloroethane; Ethylenedichloride	B2				9.10E-02	6.00E-03	1.70E-01
1,2-Dichloroethylene; 1,2-Dichloroethane					NA	NA	NA
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene					NV	2.00E-03	NV
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene					NV	2.00E-02	NV
1,2-Dichloropropane; Propylenedichloride	B2				3.70E-02	4.00E-02	8.50E-01
cis-1,3-Dichloropropene (5)					1.00E-01	3.00E-02	4.70E-01
trans-1,3-Dichloropropene (5)					1.00E-01	3.00E-02	4.70E-01
2-Hexanone; Methyl butyl ketone			S	I	NV	5.00E-03	NV
Acetone; 2-Propanone	D		S		NV	9.00E-01	NV
Benzene	A	K			5.50E-02	4.00E-03	4.60E-01
Bromodichloromethane; Dichlorobromomethane	B2				6.20E-02	2.00E-02	1.30E-01
Bromoform; Tribromomethane	B2				7.90E-03	2.00E-02	3.30E+00
Bromomethane; Methyl bromide	D				NV	1.40E-03	NV
Carbon Disulfide					NV	1.00E-01	NV
Carbon Tetrachloride	B2			L	7.00E-02	4.00E-03	4.60E-01
Chlorobenzene	D				NV	2.00E-02	NV
Chloroethane; Ethyl Chloride					NV	NV	NV
Chloroform; Trichloromethane	B2		L/N		3.10E-02	1.00E-02	2.20E-01
Chloromethane; Methyl chloride	D	P			NV	NV	NV
Dibromochloromethane; Chlorodibromomethane	C			L	8.40E-02	2.00E-02	8.70E-01
Ethylbenzene	D				1.10E-02	1.00E-01	1.50E+00
Methyl ethyl ketone; MEK; 2-Butanone	D		S		NV	6.00E-01	NV
Methyl isobutyl ketone; MIK; 4-Methyl-2-pentanone					NV	NV	NV
Methylene chloride; Dichloromethane	B2				2.00E-03	6.00E-03	1.10E+01
Styrene; Ethenylbenzene					NV	2.00E-01	NV
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	B2			L	2.10E-03	6.00E-03	1.10E+01
Toluene; Methylbenzene	D			I	NV	8.00E-02	NV
Trichloroethylene; Trichloroethene	B2			K	4.60E-02	5.00E-04	4.90E-01
Vinyl Acetate					NV	1.00E+00	NV
Vinyl Chloride	A	K			7.20E-01	3.00E-03	1.90E-02
Xylene (total)	D		S		NV	2.00E-01	NV
m-Xylene	D				NV	2.00E-01	NV
o-Xylene	D				NV	2.00E-01	NV
p-Xylene	D				NV	2.00E-01	NV
Semi-Volatile Organic Compounds							
1,2,4-Trichlorobenzene	D				2.90E-02	1.00E-02	1.20E+00
1,2-Dichlorobenzene; o-Dichlorobenzene	D				NV	9.00E-02	NV
1,3 Dichlorobenzene; m-Dichlorobenzene	D				NA	NA	NA
1,4-Dichlorobenzene; p-Dichlorobenzene					5.40E-03	7.00E-02	4.80E-01
2,4,5-Trichlorophenol					NV	1.00E-01	NV
2,4,6-Trichlorophenol	B2				1.10E-02	1.00E-03	4.10E+00
2,4-Dichlorophenol					NV	3.00E-03	NV
2,4-Dimethylphenol; m-Xylenol					NV	2.00E-02	NV
2,4-Dinitrophenol					NV	2.00E-03	NV
2,4-Dinitrotoluene; 1-Methyl-2,4-dinitrobenzene	B2				3.10E-01	2.00E-03	2.40E-01
2,6-Dinitrotoluene; 2-Methyl-1,3-dinitrobenzene	B2				1.50E+00	3.00E-04	4.90E-02
2-Chloronaphthalene; 2-Naphthyl chloride; beta-Chloronaphthalene					NV	8.00E-02	NV
2-Chlorophenol					NV	5.00E-03	NV

Table 2 - *Continued*: Groundwater Cleanup Levels (EPA RSLs)

Parameter	Toxicological Class (1) 1986	1996	1999	2005	(SF_o) Oral Cancer Slope Factor (2) 1/(mg/kg-day)	(RfD) Oral Reference Dose (3) (mg/kg-day)	(RSL) Regional Screening Level For Individual Compounds Based On 1.0×10^{-6} Risk (4) THQ = 1.0 (ug/L)
Semi-Volatile Organic Compounds: (continued)							
2-Methylnaphthalene	C		S		NV	4.00E-03	NV
2-Methylphenol; o-Cresol					NV	5.00E-02	NV
2-Nitroaniline; 2-Nitrobenzenamine; o-Nitroaniline					NV	1.00E-02	NV
2-Nitrophenol; o-Nitrophenol					NA	NA	NA
3,3'-Dichlorobenzidine; 3,3'-Dichloro-[1,1'-bi pheuyl]-4,4'-diamine	B2				4.50E-01	NV	1.30E-01
3-Nitroaniline; 3-Nitrobenzenamine; m-Nitroaniline					NA	NA	NA
3&4-Methylphenol; m&p-Cresol (6)					NV	1.00E-01	NV
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol; 2-Methyl-4,6-dinitrophenol					NV	8.00E-05	NV
4-Bromophenyl Phenyl Ether; 1-Bromo-4-phenoxy-benzene	D				NA	NA	NA
4-Chloroaniline; p-Chloroaniline; 4-Chlorobenzenamine					2.00E-01	4.00E-03	3.70E-01
4-Chlorophenyl phenyl ether; 1-Chloro-4-phenoxy benzene					NA	NA	NA
4-Chloro-3-methyl phenol					NV	1.00E-01	NV
4-Methylphenol; p-Cresol	C				NV	1.00E-01	NV
4-Nitroaniline; 4-Nitrobenzenamine; p-Nitroaniline					2.00E-02	4.00E-03	3.80E+00
4-Nitrophenol; p-Nitrophenol					NA	NA	NA
Acenaphthene; 1,2-Dihydroacenaphthylene, Acenaphthylene	D				NV	6.00E-02	NV
Anthracene	D				NV	3.00E-01	NV
Benzo[a]anthracene; Benzanthracene	B2				1.00E-01	NV	3.00E-02
Benzo[a]pyrene	B2				1.00E+00	3.00E-04	2.50E-02
Benzo[b]flouranthene; Benz[e]acephenanthrylene	B2				1.00E-01	NV	2.50E-01
Benzo[ghi]perylene	D				NA	NA	NA
Benzo[k]flouranthene	B2				1.00E-02	NV	2.50E+00
Benzyl alcohol; Benzenemethanol	D				NV	1.00E-01	NV
Benzoic acid					NV	4.00E+00	NV
bis(2-Chloroethoxy)methane; 1,1-[methylenebis(oxy)] bis[2-chloroethane]	D				NV	3.00E-03	NV
bis(2-Chloroethyl) ether; Dichloroethyl ether; 1,1'-oxybis [2-Chloroethane]	B2				1.10E+00	NV	1.40E-02
bis(2-Chloro-1-methylethyl) Ether; 2,2'-Dichlorodiisopropyl ether; DCIP	C				NV	4.00E-02	NV
bis(2-Ethylhexyl) Phthalate; 1,2-Benzenedicarboxylic acid, bis (2-Ethylhexyl) ester	B2				1.40E-02	2.00E-02	5.60E+00
Butyl benzyl phthalate; Benzyl butyl phthalate; 1,2-Benzenedicarboxylic acid	C				1.90E-03	2.00E-01	1.60E+01
Chrysene	B2				1.00E-03	NV	2.50E+01
Di-n-butyl phthalate; 1,2-Benzenedicarboxylic acid dibutyl ester, Dibutyl Phthalate	D				NV	1.00E-01	NV
Di-n-octyl phthalate; 1,2-Benzenedicarboxylic acid, Dioctyl ester					NV	1.00E-02	NV
Di-n-propylnitrosamine; N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine					7.00E+00	NV	1.10E-02
Dibenz[a,h]anthracene	B2				1.00E+00	NV	2.50E-02
Dibenzofuran	D				NV	1.00E-03	NV
Diethyl phthalate; 1,2-Benzenedicarboxylic acid, Diethyl ester	D				NV	8.00E-01	NV
Dimethyl phthalate; 1,2-Benzenedicarboxylic acid, dimethyl ester	D				NA	NA	NA
Fluoranthene	D				NV	4.00E-02	NV
Fluorene; 9H-fluorene	D				NV	4.00E-02	NV
Hexachlorobenzene	B2				1.60E+00	8.00E-04	9.80E-03
Hexachlorobutadiene	C				7.80E-02	1.00E-03	1.40E-01
Hexachlorocyclopentadiene	D	N			NV	6.00E-03	NV
Hexachloroethane	C			L	4.00E-02	7.00E-04	3.30E-01
Indeno (1,2,3-cd) pyrene	B2				1.00E-01	NV	2.50E-01
Isophorone; 3,5,5-Trimethyl-2-cyclohexen-1-one	C				9.50E-04	2.00E-01	7.80E+01
N-Nitrosodimethylamine; N-Methyl-N-nitroso methanamine	B2				5.10E+01	8.00E-06	1.10E-04
N-Nitroso-Di-N-Propylamine	B2				7.00E+00	NV	1.10E-02
Naphthalene	D	P			NV	2.00E-02	1.70E-01
Nitrobenzene	D			L	NV	2.00E-03	1.40E-01
Pentachlorophenol	B2			L	4.00E-01	5.00E-03	4.10E-02
Phenanthrene	D				NA	NA	NA
Phenol	D		S		NV	3.00E-01	NV
Pyrene	D				NV	3.00E-02	NV

Table 2 - *Continued*: Groundwater Cleanup Levels (EPA RSLs)

Parameter	Toxicological Class (1) 1986	1996	1999	2005	(SF_o) Oral Cancer Slope Factor (2) 1/(mg/kg-day)	(RfD) Oral Reference Dose (3) (mg/kg-day)	(RSL) Regional Screening Level For Individual Compounds Based On 1.0 x 10^{-6} Risk (4) THQ = 1.0 (ug/L)
Metals (Total)							
Aluminum					NV	1.00E+00	NV
Antimony (metallic)					NV	4.00E-04	NV
Arsenic, Inorganic	**A**				1.50E+00	3.00E-04	5.20E-02
Barium		N			NV	2.00E-01	NV
Beryllium and Compounds		P			NV	2.00E-03	NV
Cadmium (Water)					NV	5.00E-04	NV
Calcium					NA	NA	NA
Chromium, Total		P			NV	NV	NV
Cobalt					NV	3.00E-04	NV
Copper	D				NV	4.00E-02	NV
Cyanide (free, CN-)	D				NV	6.00E-04	NV
Iron	**C**				NV	7.00E-01	NV
Lead and Compounds:	**B2**				NV	NV	NV
Magnesium					NA	NA	NA
Manganese (Diet)	D				NV	1.40E-01	NV
Mercury (elemental)	D				NV	NV	NV
Nickel (Soluble Salts)					NV	2.00E-02	NV
Potassium					NA	NA	NA
Selenium	D				NV	5.00E-03	NV
Silver	D				NV	5.00E-03	NV
Sodium					NA	NA	NA
Thallium (Soluble Salts)		I			NV	1.00E-05	NV
Vanadium and Compounds					NV	5.00E-03	NV
Zinc and Compounds	D		S	I	NV	3.00E-01	NV

Notes:
NA = Not Available; **Bold** - Potential Carcinogen
(1) USEPA Weight-of-Evidence Toxicological Classification
1986 Guidelines
A - Human Carcinogen (sufficient evidence of carcinogenicity in humans)
B1 - Probable Human Carcinogen (limited evidence of carcinogenicity in humans)
B2 - Probable Human Carcinogen (sufficient evidence of carcinogenicity in animals)
C - Possible Human Carcinogen (limited evidence of carcinogenicity in animals)
D - Not Classified as to Human Carcinogenicity (inadequate or no evidence)
1996 Guidelines
K - Known/likely human carcinogen
P - Carcinogenic potential cannot be determined
N - Not likely to be carcinogenic to humans
1999, 2005 Guidelines
K - Carcinogenic to humans
L - Likely to be carcinogenic to humans
S - Suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential
I - Data are inadequate for an assessment of human carcinogenic potential
N - Not likely to be carcinogenic to humans
(2) Cancer Slope Factor - A measure of the carcinogenic potential of a compound.
SOURCE : USEPA Integrated Risk Information System (IRIS); August 2018.
: Health Effects Assessment Table (HEAST); July 1997.
: Regional Screening Levels (RSLs) Master Table; November 2019. Provisional values supplied by NCEA.
: CalEPA Office of Environmental Health Hazard Assessment (OEHHA), Cancer Potency Values; September 2016.
(3) The RfD is a daily exposure level which is believed to be without appreciable health risk to humans over a lifetime. The RfD is usually derived from an experimental "no observed adverse effect level" (NOAEL), identified as the highest dose in the most relevant study that didnot result in a known adverse effect. The NOAEL is divided by various uncertainty factors to derive the RfD. These uncertainty factors account for the variation in human response, extrapolation to human responses if animal experiments were used, data quality and relevance.
(4) Based on the assumption of 2 liters of groundwater consumed per day, for 350 days per year, by a 70-kg adult for a 30-year residency period.
(5) 1,3-Dichloropropene CSF, RfD_o, and RSL substituted.

APPENDIX A: NPL PARTIAL DELETION DOCKET REPORTS INDEX FOR LAND/SOIL PORTION OF SUMMIT NATIONAL SUPERFUND SITE

NPL Deletion Docket Reports Index
Summit National Superfund Site, Ohio
EPA-HQ- OLEM-2021-0815
EPA SEMS Collection ID No. 05-40430

EPA Document Region	Document ID	Document Date	Document Title	Pages	SEMS-Public Document URL
05	2003799	11/02/2021	EAGON & ASSOCIATES INC - 2021 ANNUAL MONITORING RESULTS	206	https://semspub.epa.gov/src/document/05/2003799
05	2003774	03/08/2021	EAGON ASSOCIATES LETTER RE: QAPP UPDATE - REVISED GROUNDWATER SAMPLING PROCEDURES	7	https://semspub.epa.gov/src/document/05/2003774
05	968869	10/12/2020	EAGON & ASSOCIATES INC - 2020 ANNUAL MONITORING RESULTS	188	https://semspub.epa.gov/src/document/05/968869
05	968868	01/21/2020	EAGON & ASSOCIATES INC - 2019 FIVE-YEAR GROUNDWATER MONITORING EVENT REPORT	836	https://semspub.epa.gov/src/document/05/968868
05	968867	10/31/2018	EAGON & ASSOCIATES INC - 2018 ANNUAL MONITORING RESULTS	253	https://semspub.epa.gov/src/document/05/968867
05	941855	07/13/2018	FIFTH FIVE-YEAR REVIEW REPORT (SIGNED) - SUMMIT NATIONAL - 2018	138	https://semspub.epa.gov/src/document/05/941855
05	968866	10/26/2017	EAGON & ASSOCIATES INC - 2017 ANNUAL MONITORING RESULTS	253	https://semspub.epa.gov/src/document/05/968866
05	968870	10/14/2016	EAGON & ASSOCIATES INC - APRIL 2016 ANNUAL MONITORING EVENT RESULTS	246	https://semspub.epa.gov/src/document/05/968870
05	521987	10/31/2015	EAGON & ASSOCIATES INC - MAY 2014 FIVE YEAR GROUNDWATER MONITORING REPORT	1644	https://semspub.epa.gov/src/document/05/521987
05	968871	10/12/2015	EAGON & ASSOCIATES INC - APRIL 2015 ANNUAL MONITORING EVENT RESULTS	310	https://semspub.epa.gov/src/document/05/968871
05	537103	06/25/2015	DUPONT LETTER - CONSENT DECREE CIVIL ACTION NO. C81-1961 - SUMMIT NATIONAL FACILITY OHIO	3	https://semspub.epa.gov/src/document/05/53710

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05	537105	10/31/2013	CONESTOGA ROVER & ASSOCIATES - APRIL 2013 GROUNDWATER SURFAE WATER AND SEDIMENT MONITORING	83	https://semspub.epa.gov/src/document/05/537105
05	2003773	09/24/2013	PRP RESPONSE TO JULY 2013 FYR REPORT - INCLUDES CONESTOGA ROVER LONG-TERM STEWARDSHIP PROCEDURES UPDATE TO O&M PAN (ATTACHED)	466	https://semspub.epa.gov/src/document/05/2003773
05	540266	09/09/2013	CRA LTD LETTER - ANNUAL PROGRESS REPORT NO. 18 (OPERATION MAINTENANCE & MONITORING)	5	https://semspub.epa.gov/src/document/05/540266
05	458024	08/12/2013	EPA - SUPERFUND PROPERTY REUSE EVALUATION CHECKLIST FOR REPORTING SITEWIDE READY FOR ANTICIPATED USE GPRA MEASURE	30	https://semspub.epa.gov/src/document/05/458024
05	459378	07/06/2013	FOURTH FIVE-YEAR REVIEW REPORT (SIGNED) - SUMMIT NATIONAL - 2013	98	https://semspub.epa.gov/src/document/05/459378
05	963137	06/05/2013	[REDACTED] ENVIRONMENTAL CONVENANT BETWEEN US EPA AND JOHN VASI	13	https://semspub.epa.gov/src/document/05/963137
05	540549	09/10/2012	CRA - ANNUAL PROGRESS REPORT NO. 17 - OPERATION, MAINTENANCE, AND MONITORING	4	https://semspub.epa.gov/src/document/05/540549
05	527180	08/30/2012	CONESTOGA ROVERS & ASSOCIATES - APRIL 2012 GROUNDWATER, SURFACE WATER AND SEDIMENTS MONITORING	66	https://semspub.epa.gov/src/document/05/527180
05	540543	12/16/2011	CRA - 2011 ANNUAL SEDIMENT SAMPLE RESULTS	7	https://semspub.epa.gov/src/document/05/540543

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05	540544	12/16/2011	CRA - REVISED WORK PLAN FOR DATA GATHERING TO EVALUATE FEASIBILITY AND ASSIST IN POSSIBLE DESIGN OF A LIMITED PHYTOCONTROL SYSTEM FOR GROUNDWATER HYDRAULIC CONTROL	11	https://semspub.epa.gov/src/document/05/540544
05	540523	09/09/2011	CRA - ANNUAL PROGRESS REPORT NO. 16 - OPERATION, MAINTENANCE, AND MONITORING	4	https://semspub.epa.gov/src/document/05/540523
05	537270	08/31/2011	CONESTOGA ROVERS - APRIL 2011 GRIOUNDWATER MONITORING	49	https://semspub.epa.gov/src/document/05/537270
05	538954	04/19/2011	EPA LETTER RE: CONSENT DECREE ENVIRONMENTAL COVENANT	16	https://semspub.epa.gov/src/document/05/538954
05	540522	09/28/2010	CRA - JUNE 2010 GROUNDWATER MONITORING REPORT	43	https://semspub.epa.gov/src/document/05/540522
05	537275	09/10/2010	CONESTOGA ROVERS LETTER - ANNUAL PROGRESS REPORT NO. 15 OPERATION MAINTENANCE AND MONITORING	4	https://semspub.epa.gov/src/document/05/537275
05	540528	09/10/2009	CRA - ANNUAL PROGRESS REPORT NO. 14 - OPERATION, MAINTENANCE, AND MONITORING	4	https://semspub.epa.gov/src/document/05/540528
05	2003772	09/02/2009	CONESTOGA ROVERS APRIL 2009 GROUNDWATER MONITORING REPORT (5-YEAR GROUNDWATER REPORT)	264	https://semspub.epa.gov/src/document/05/2003772
05	936078	03/02/2009	CRA - NOVEMBER 2008 GROUNDWATER MONITORING REPORT	38	https://semspub.epa.gov/src/document/05/936078
05	303478	08/25/2008	THIRD FIVE YEAR REVIEW REPORT (SIGNED) - SUMMIT NATIONAL - 2008	79	https://semspub.epa.gov/src/document/05/303478
05	936077	07/18/2008	CRA - APRIL 2008 GROUNDWATER MONITORING REPORT	43	https://semspub.epa.gov/src/document/05/936077

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05	584979	01/19/2007	CRA - AUGUST 2009 GROUNDWATER MONITORING REPORT	96	https://semspub.epa.gov/src/document/05/584979
05	540526	09/14/2006	CRA - ANNUAL PROGRESS REPORT NO. 11 - OPERATION, MAINTENANCE, AND MONITORING	5	https://semspub.epa.gov/src/document/05/540526
05	540527	08/25/2006	CRA - MAY 2006 QUARTERLY GROUNDWATER HYDRAULIC MONITORING REPORT	10	https://semspub.epa.gov/src/document/05/540527
05	584978	06/10/2005	CRA - WORK PLAN FOR GROUNDWATER MIGRATION EVALUATION	32	https://semspub.epa.gov/src/document/05/584978
05	2003775	03/16/2004	CONESTOGA-ROVERS - OCTOBER 2004 GROUNDWATER MONITORING REPORT (5-YEAR GROUNDWATER REPORT)	249	https://semspub.epa.gov/src/document/05/2003775
05	533084	01/18/2004	CONESTOGA ROVERS & ASSOCIATES - OCTOBER 2003 GROUNDWATER MONITORING REPORT	71	https://semspub.epa.gov/src/document/05/533084
05	201662	09/22/2003	SECOND FIVE YEAR REVIEW REPORT (SIGNED) - SUMMIT NATIONAL - 2003	59	https://semspub.epa.gov/src/document/05/201662
05	533082	02/28/2003	CONESTOGA ROVERS & ASSOCIATES - OCTOBER 2002 GROUNDWATER MONITORING REPORT	69	https://semspub.epa.gov/src/document/05/533082
05	533089	03/25/1999	CONSENT DECREE (SIGNED) CIVIL ACTION NO. 5-99-CV-274	52	https://semspub.epa.gov/src/document/05/533089
05	491875	03/01/1999	CRA LTD - INTERIM EVALUATION OF REMEDIAL ACTION	54	https://semspub.epa.gov/src/document/05/491875
05	159380	09/23/1998	FIVE YEAR REVIEW REPORT (SIGNED) - SUMMIT NATIONAL - 1998	8	https://semspub.epa.gov/src/document/05/159380

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05	128683	10/01/1997	CRA LTD - GROUND WATER HYDRAULIC MONITORING DATA - SEVENTH ROUND OF GROUND WATER QUALITY MONITORING REPORT - SUMMIT NATIONAL	153	https://semspub.epa.gov/src/document/05/128683
05	128685	05/01/1997	CRA LTD - HYDRAULIC MONITORING - SIXTH ROUND OF GROUND WATER QUALITY MONITORING REPORT (COVER LETTER ATTACHED) - SUMMIT NATIONAL	141	https://semspub.epa.gov/src/document/05/128685
05	128889	02/26/1997	CRA LTD - QUARTERLY GROUND WATER HYDRAULIC MONITORING - OPERATION AND MAINTENANCE (O & M) - SUMMIT NATIONAL	94	https://semspub.epa.gov/src/document/05/128889
05	533091	01/01/1997	US EPA FACT SHEET - COOPERATIVE SETTLEMENT	4	https://semspub.epa.gov/src/document/05/533091
05	128320	11/01/1996	CRA LTD - QUALITY ASSURANCE PROJECT PLAN (QAPP) - OPERATION MAINTENANCE & MONITORING PLAN - SUMMIT NATIONAL	262	https://semspub.epa.gov/src/document/05/128320
05	128686	05/01/1996	CRA LTD - HYDRAULIC MONITORING - FOURTH ROUND OF GROUND WATER QUALITY MONITORING REPORT (8/20/96 COVER LETTER INCLUDED) - ANNOTATED	324	https://semspub.epa.gov/src/document/05/128686
05	128692	02/01/1996	CRA LTD - HYDRAULIC MONITORING REPORT - THIRD ROUND OF GROUND WATER QUALITY MONITORING (2/12/96 COVER LETTER INCLUDED)	399	https://semspub.epa.gov/src/document/05/128692

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05	128689	02/01/1996	CRA LTD - QUARTERLY GROUND WATER HYDRAULIC MONITORING OPERATION AND MAINTENANCE (O & M) REPORT (3/6/96 COVER LETTER INCLUDED) - SUMMIT NATIONAL	83	https://semspub.epa.gov/src/document/05/128689
05	169606	11/02/1995	CRA LTD - OPERATION, MAINTENANCE & MONITORING PLAN - VOL 1 OF 2	469	https://semspub.epa.gov/src/document/05/169606
05	169607	11/02/1995	CRA LTD - OPERATION, MAINTENANCE & MONITORING PLAN - VOL 2 OF 2	684	https://semspub.epa.gov/src/document/05/169607
05	128880	10/01/1995	CRA LTD - REMEDIAL ACTION REPORT (10/31/95 COVER LETTER INCLUDED) - PART I OF II	529	https://semspub.epa.gov/src/document/05/128880
05	130760	10/01/1995	CRA LTD - REMEDIAL ACTION REPORT (10/31/95 COVER LETTER INCLUDED - PART II OF II - APPENDIX D-G	265	https://semspub.epa.gov/src/document/05/130760
05	132501	09/18/1995	CC 310, Preliminary Close Out Report	12	https://semspub.epa.gov/src/document/11/132501
05	128244	06/02/1995	CRA LTD - REVISED - QUALITY ASSURANCE PROJECT PLAN (QAPP) - OPERATION AND MAINTENANCE (O & M) - TSS	66	https://semspub.epa.gov/src/document/05/128244
05	128997	05/09/1995	CRA LTD - EXTRACTION WELL SHUTDOWN & HYDRAULIC MONITORING REPORT (6/23/95 COVER LETTER ATTACHED)	43	https://semspub.epa.gov/src/document/05/128997
05	128710	11/01/1994	CRA LTD - STARTUP ROUND OF GROUND WATER MONITORING REPORT (2/1/95 COVER LETTER INCLUDED) - SUMMIT NATIONAL	281	https://semspub.epa.gov/src/document/05/128710

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05	128341	07/01/1994	CRA LTD - QUALITY ASSURANCE PROJECT PLAN (QAPP) - OPERATION AND MAINTENANCE (O & M) - TSS	314	https://semspub.epa.gov/src/document/05/128341
05	128248	06/02/1994	CRA LTD LETTER RE: RESPONSE TO US EPA & OH EPA COMMENTS ON OPERATION AND MAINTENANCE (O & M) PLAN 5/17/94 - REVISED QUALITY ASSURANCE PROJECT PLAN (QAPP) ATTACHED - TSS	39	https://semspub.epa.gov/src/document/05/128248
05	128836	05/01/1993	CRA LTD - FINAL DESIGN REPORT - VOLUME 1 OF 3 - TEXT; TABLES; FIGURES	130	https://semspub.epa.gov/src/document/05/128836
05	128846	05/01/1993	CRA LTD - FINAL DESIGN REPORT - VOLUME 2 OF 3 - APPENDIX A-C	218	https://semspub.epa.gov/src/document/05/128846
05	128849	05/01/1993	CRA LTD - FINAL DESIGN REPORT - VOLUME 3 OF 3 - APPENDIX D-F	324	https://semspub.epa.gov/src/document/05/128849
05	128542	05/01/1993	CRA LTD - REMEDIAL CONSTRUCTION WORK PLAN - VOLUME I - TEXT / FIGURES	82	https://semspub.epa.gov/src/document/05/128542
05	128547	05/01/1993	CRA LTD - REMEDIAL CONSTRUCTION WORK PLAN - VOLUME II - APPENDICES A & B	112	https://semspub.epa.gov/src/document/05/128547
05	128548	05/01/1993	CRA LTD - REMEDIAL CONSTRUCTION WORK PLAN - VOLUME III - APPENDICES C-F	488	https://semspub.epa.gov/src/document/05/128548
05	128550	05/01/1993	CRA LTD - REMEDIAL CONSTRUCTION WORK PLAN - VOLUME IV - APPENDICES G-K	561	https://semspub.epa.gov/src/document/05/128550
05	128551	05/01/1993	CRA LTD - REMEDIAL CONSTRUCTION WORK PLAN - VOLUME V - APPEXDIX L	290	https://semspub.epa.gov/src/document/05/128551

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05	130159	05/01/1993	CRA LTD - REMEDIAL CONSTRUCTION WORK PLAN - VOLUME V - APPENDIX L DRAFT OPERATION AND MAINTENANCE (O & M) PLAN - TSS	300	https://semspub.epa.gov/src/document/05/130159
05	533088	07/13/1992	CONSENT DECREE (SIGNED) CIVIL ACTION NO. 90-CV-1168	13	https://semspub.epa.gov/src/document/05/533088
05	128775	03/23/1992	EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) (SIGNED) - SUMMIT NATIONAL	10	https://semspub.epa.gov/src/document/05/128775
05	140499	01/08/1992	OH EPA CONTRACT FOR FIELD INVESTIGATION & FEASIBILITY STUDIES (UNSIGNED) (1/8/82 OH EPA LETTER REQUESTING FOR AUDIT ATTACHED)	7	https://semspub.epa.gov/src/document/05/140499
05	128680	12/19/1991	CRA LTD - CONSTRUCTION REPORT - SEDIMENT REMOVAL INTERIM RESPONSE ACTION (COVER LETTER ATTACHED)	85	https://semspub.epa.gov/src/document/05/128680
05	128682	12/19/1991	CRA LTD - TECHNICAL MEMORANDA #1-8 - PRE-DESIGN ACTIVITIES: ACCESS AGREEMENTS; SURVEYS; TREATABILITY STUDY (COVER LETTER ATTACHED) - SUMMIT NATIONAL	393	https://semspub.epa.gov/src/document/05/128682
05	128553	10/01/1991	CRA LTD - REMEDIAL DESIGN WORK PLAN - SUMMIT NATIONAL	473	https://semspub.epa.gov/src/document/05/128553
05	367246	05/01/1991	CONSENT DECREE (CD) (SIGNED, FILED 06/11/91) - C81-1961	364	https://semspub.epa.gov/src/document/05/367246
05	140683	11/02/1990	RECORD OF DECISION (ROD) AMENDMENT (SIGNED) - SUMMIT NATIONAL	17	https://semspub.epa.gov/src/document/05/140683

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05	963136	09/27/1990	[REDACTED] EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) - SUMMIT NATIONAL LIQUID DIVISION	32	https://semspub.epa.gov/src/document/05/963136
05	140681	09/27/1990	EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) - SUMMIT NATIONAL LIQUID DIVISION	32	https://semspub.epa.gov/src/document/05/140681
05	139421	03/26/1990	B & V CORP - ARCS V - RD/RA COMMUNITY RELATIONS PLAN	29	https://semspub.epa.gov/src/document/05/139421
05	128435	07/20/1989	EPA ACTION MEMO - REQUEST FOR TWELVE MONTH EXEMPTION	5	https://semspub.epa.gov/src/document/05/128435
05	140671	12/19/1988	ADMINISTRATIVE ORDER ON CONSENT (AOC) (UNSIGNED) - DE MINIMIS SETTLEMENT - V-W-89-C-022	59	https://semspub.epa.gov/src/document/05/140671
05	140679	08/30/1988	EPA PROPOSED PLAN FOR RECORD OF DECISION (ROD) AMENDMENT - SUMMIT NATIONAL	14	https://semspub.epa.gov/src/document/05/140679
05	128785	06/30/1988	RECORD OF DECISION (ROD) (SIGNED) - SUMMIT NATIONAL	37	https://semspub.epa.gov/src/document/05/128785
05	128787	06/30/1988	RECORD OF DECISION (ROD) (SIGNED) - SUMMIT NATIONAL - ATTACHMENTS - COSTS ANALYSIS; RESPONSIVENESS SUMMARY; AR INDEX; CONTAMINANT SUMMARY	275	https://semspub.epa.gov/src/document/05/128787
05	128737	02/12/1988	CH2M HILL INC - FEASIBILITY STUDY (FS) - PUBLIC COMMENT	331	https://semspub.epa.gov/src/document/05/128737
05	140646	02/12/1988	EPA PROPOSED PLAN - SUMMIT NATIONAL	21	https://semspub.epa.gov/src/document/05/140646
05	936214	02/10/1988	CH2M HILL INC - REM IV - FINAL REMEDIAL INVESTIGATION (RI) REPORT - VOL 2 OF 2 - APPENDICES - PART 2 OF 2 (REDACTED)	256	https://semspub.epa.gov/src/document/05/936214

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05	140644	02/10/1988	CH2M HILL INC - REM IV - FINAL REMEDIAL INVESTIGATION (RI) REPORT - VOL 2 OF 2 - APPENDICES - PART 1 OF 2	233	https://semspub.epa.gov/src/document/05/140644
05	962076	02/10/1988	CH2M HILL INC - REM IV - FINAL REMEDIAL INVESTIGATION (RI) REPORT - VOL 1 OF 2 [REDACTED]	343	https://semspub.epa.gov/src/document/05/962076
05	962078	02/10/1988	CH2M HILL INC - REM IV - FINAL REMEDIAL INVESTIGATION (RI) REPORT - VOL 2 OF 2 [REDACTED]	488	https://semspub.epa.gov/src/document/05/962078
05	936217	03/27/1987	EPA ACTION MEMO - REQUEST APPROVAL & FUNDS FOR EMERGENCY ACTION (PROJECT ESTIMATE ATTACHED) (REDACTED)	6	https://semspub.epa.gov/src/document/05/936217
05	140643	02/10/1987	CH2M HILL INC - REM IV - FINAL REMEDIAL INVESTIGATION (RI) REPORT - VOL 1 OF 2	368	https://semspub.epa.gov/src/document/05/140643
05	936216	01/15/1987	EPA ACTION MEMO - REQUEST FOR EMERGENCY ACTION (SITE MAP ENCLOSED) (REDACTED)	11	https://semspub.epa.gov/src/document/05/936216
05	140512	10/01/1986	EPA FACT SHEET - REMEDIAL INVESTIGATION UPDATE	4	https://semspub.epa.gov/src/document/05/140512
05	901289	06/30/1986	SUPERFUND STATE CONTRACT FOR ADVANCE FUNDING TO COMPLETE REMEDIAL INVESTIGATION & FEASIBILITY STUDY AT SUMMIT NATIONAL SITE, PORTAGE COUNTY, BETWEEN STATE OF OHIO & USEPA	8	https://semspub.epa.gov/src/document/05/901289
05	140510	07/01/1985	EPA FACT SHEET - REMEDIAL INVESTIGATION UPDATE	3	https://semspub.epa.gov/src/document/05/140510
05	936212	09/01/1984	REVISED RI/FS COMMUNITY RELATIONS PLAN (REDACTED)	14	https://semspub.epa.gov/src/document/05/936212
05	936210	12/07/1976	COMPLIANCE MONITORING REPORT (EPA MEMO ATTACHED) (REDACTED)	17	https://semspub.epa.gov/src/document/05/936210

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05	130157	Undated	CRA LTD - TSS - QUALITY ASSURANCE PROJECT PLAN (QAPP) - OPERATION AND MAINTENANCE (O & M) - APPENDIX 12.1 FIELD & LAB SOPS - ANNOTATED	636	https://semspub.epa.gov/src/document/05/130157

APPENDIX B: OEPA STATE LETTER OF CONCURRENCE

Ohio Environmental Protection Agency

Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

December 7, 2021

Ms. Karen Cibulskis
NPL Deletion Coordinator
U.S. EPA, Region 5, SR-6J
77 West Jackson Boulevard
Chicago, IL 60604

RE: Summit Natl Liquid Disposal Services, Deerfield
Remediation Response
Project Records
Remedial Response
Summit County
ID # 267000779001

Subject: Summit National Superfund Site, Portage County, Ohio, Proposed Deletion of Land/Soil from the National Priorities List

Dear Ms. Cibulskis:

On October 27, 2021, the Ohio Environmental Protection Agency (Ohio EPA), Division of Environmental Response and Revitalization (DERR) received from the United States Environmental Protection Agency (U.S. EPA) the Proposed Notice of Intent for Deletion (from the National Priorities List (NPL)) of the land/soil portion of Summit National Superfund Site (the Site), located in Deerfield Township, Portage County, Ohio.

Ohio EPA is pleased to concur with the proposed NPL deletion of the land/soil portion of the Site. We agree that this is an appropriate action and look forward to its implementation.

Ohio EPA's willingness to concur with the proposed deletion of the land/soil portion of the Site should not be construed as a waiver of the State of Ohio's rights, claims, or causes of action against any potentially responsible party with respect to the Site.

If you have any questions or concerns, please contact Site Coordinator Edward D'Amato at (330) 963-1170, or via email at ed.damato@epa.ohio.gov.

Sincerely,

Laurie A. Stevenson
Director

LAS/sc

ec: Melisa Witherspoon, Chief, Ohio EPA, DERR, CO
Mark Rickrich, Manager, Ohio EPA, DERR, CO
William Damschroder, Supervising Attorney, Ohio EPA, Legal Office, CO
Kurt Princic, Chief, Ohio EPA, NEDO
Natalie Oryshkewych, Manager, Ohio EPA, DERR, NEDO
Megan Oravec, Supervisor, Ohio EPA, DERR, NEDO
Edward D'Amato, Site Coordinator, Ohio EPA, DERR, NEDO

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