RECORD OF DECISION

August 1991

RECORD OF DECISION

Bunker Hill Mining and Metallurgical Complex
Residential Soils Operable Unit
Shoshone County, Idaho

August 1991

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TABLES (Continued)

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DECLARATION
FOR THE
RECORD OF DECISION

SITE NAME

Bunker Hill Mining and Metallurgical Complex Site
Populated Areas
Residential Soils Operable Unit

LOCATION

Cities of Kellogg, Smelterville, Wardner, Pinehurst, and other residential areas within the site
Shoshone County, Idaho

STATEMENT OF BASIS AND PURPOSE

This decision document presents the remedial action selected by the U.S. Environmental Protection Agency and the Idaho Department of Health and Welfare for the Populated Areas Residential Soils Operable Unit at the Bunker Hill Mining and Metallurgical Complex Site in northern Idaho. The remedy was chosen in accordance with CERCLA, as amended by SARA, and, to the extent practicable, the National Contingency Plan. This decision is based on the Residential Soils Administrative Record file for this site, and the index is attached.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE REMEDY

The Residential Soils Operable Unit is the first unit to be addressed at Bunker Hill. **Exposure to lead in residential soils has been identified as the primary health risk to children and pregnant women within the Populated Areas of the site.** Residential soils are not a "principal threat" at this site (as defined by U.S. EPA--see Glossary), although they represent a significant lead exposure pathway to the local population.

Exposure to interior house dust and consumption of locally grown garden produce have also been identified as significant contaminant exposure pathways to people. Contaminants of concern for garden produce include lead and cadmium.

Remediation of residential soils will break the direct contact exposure pathway between people and those soils. In addition, implementation of the selected remedy will remove a source of metal-contaminated dust to home interiors (residential soils are a source of house dust), and provide safe garden areas.

The residential soils remedy consists of the following:

- Removal of contaminated surficial soil
- Placement of a visual marker if lead in soil concentrations exceed 1,000 ppm below the depth of excavation
- Replacement with clean soil (these soils will function as a barrier between residents and underlying contaminated material)
- Revegetation of yards
- Disposal of contaminated materials
- Dust suppression during remediation
- Institutional controls for barrier management
- Long-term environmental monitoring for evaluation of remedial effectiveness

A Remedial Action Objective is to decrease the concentration of lead such that 95 percent or more of the children in the area have blood lead levels below 10 μg/dl. This remedial action is expected to achieve community mean soil lead concentrations of approximately 200 to 300 ppm by removal of soils exceeding the threshold level of 1,000 ppm lead. Approximately 1,800 residential properties will be remediated based on this criterion. U.S. EPA and IDHW have determined that residential yards cleaned up in 1989, 1990, and 1991 were done so in a manner consistent with this Record of Decision. These properties will be included in the Institutional Controls Program.

To meet the health based Remedial Action Objectives, contaminated fugitive dust must be controlled and lead concentrations in home interior dust must be reduced. It is expected that there will be at least one other Record of Decision that will address fugitive dust, interior dust, and all other remaining issues for the site.

STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. This remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. However, because treatment of the metal-contaminated residential soils was found to be not practicable, this remedy does not satisfy the statutory preference for treatment as a principal element of the remedy. Treatment was determined to be impracticable based upon effectiveness and cost factors.

Because this remedy will result in hazardous substances remaining onsite above health-based levels, a review will be conducted within 5 years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

Richard P. Donovan
Director
Idaho Department of Health and Welfare

August 26, 1991
Date

Dana A. Rasmussen
Regional Administrator
U.S. EPA Region 10

August 30, 1991
Date

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RECORD OF DECISION SUMMARY

Site Name: Bunker Hill Mining and Metallurgical Complex Site
Populated Areas
Residential Soils Operable Unit

Location: Cities of Kellogg, Smelterville, Wardner, Pinehurst; and other residential areas within site boundaries
Shoshone County, Idaho

1 SITE DESCRIPTION

The Bunker Hill Mining and Metallurgical Complex Superfund Site is located in Shoshone County, in northern Idaho, at 47°5' north latitude and 116°10' west longitude (Figure 1-1). The site lies in the Silver Valley of the South Fork of the Coeur d'Alene River (SFCDR). The Silver Valley is a steep mountain valley that trends from east to west. Interstate Highway 90 crosses through the valley, approximately parallel to the SFCDR. The site includes the town of Pinehurst on the west and the town of Kellogg on the east (Figure 1-2) and is centered on the Bunker Hill industrial complex. The site has been impacted by over 100 years of mining and 65 years of smelting activity. The complex occupies several hundred acres in the center of the site between the towns of Kellogg and Smelterville.

The agencies [U.S. Environmental Protection Agency (U.S. EPA) and Idaho Department of Health and Welfare (IDHW)] have designated a 21-square-mile study area for purposes of conducting the Remedial Investigation/Feasibility Study (RI/FS), which has been divided into Populated Areas and Non-populated Areas. This Record of Decision (ROD) addresses contaminated residential soils within the Populated Areas of the site. Soils throughout the site have been contaminated by heavy metals, to varying degrees, through a combination of airborne particulate deposition, alluvial deposition of tailings dumped into the river by mining activity, and contaminant migration from onsite sources. Onsite sources include the industrial complex, tailings and other waste piles, barren hillsides, and fugitive dust source areas located throughout the site.

The Populated Areas of the site consist of four incorporated communities and three unincorporated residential areas. Except for the eastern portion of Kellogg, all of these communities lie south of U.S. Interstate 90 (I-90), between the highway and steep hillsides to the south. Portions of the residential areas lie within the floodplain of the South Fork of the Coeur d'Alene River.

This ROD addresses currently established residential areas. The city of **Kellogg** (see Figure 1-3) is 6 miles east of the western edge of the site and approximately 1 mile east of the smelter complex. The population is estimated to be 2,600 with about 1,100 residences. The next largest population center is the city of **Pinehurst** (see Figure 1-4) with 700 residences and about 1,700 people. It is located on the western edge of the site, about 1 mile south of I-90. **Smelterville** (see Figure 1-5), with a population of about 450 and 270 residences, is approximately 3 miles east of the western edge of the site and lies along a minor arterial road linking it to Pinehurst and Kellogg. The town is about 1 mile west of the smelter complex. The city of **Wardner** (see Figure 1-6) is contiguous with the southeast portion of Kellogg and is approximately 6 miles east of the western boundary of the site. The population of Wardner is currently about 300 people with 130 residences. The unincorporated community of **Page** (see Figure 1-7) is about 1 mile east of the western edge of the site. Most of the land is owned by American Smelting and Refining Company (ASARCO), while the homes are owned by the residents. Population of Page is estimated to be about 100 to 150 people, and the area includes 65 residences. Two unincorporated residential areas located along the eastern site boundary are **Elizabeth Park** and **Ross Ranch** with populations estimated to be 120 and 50 people, respectively.

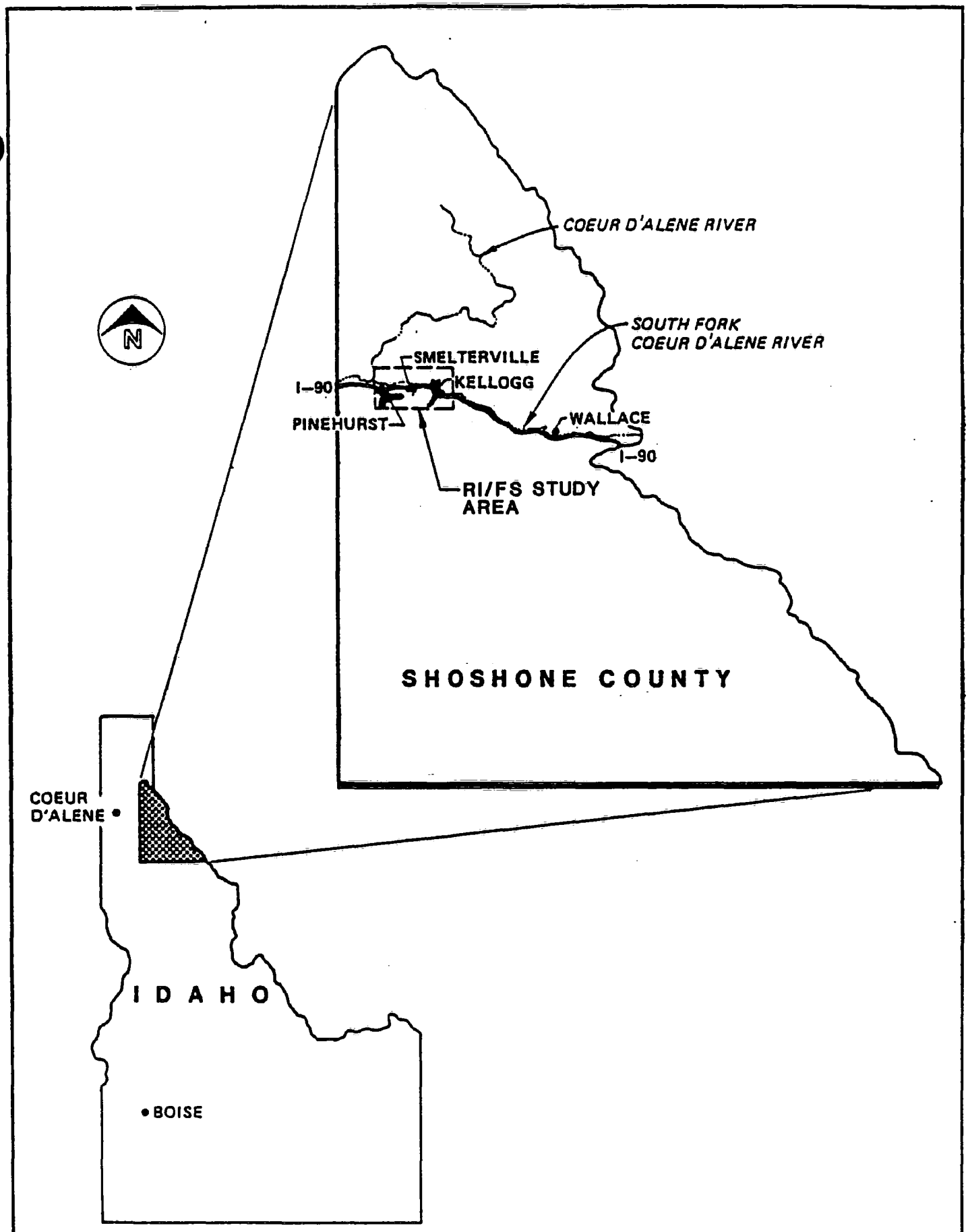
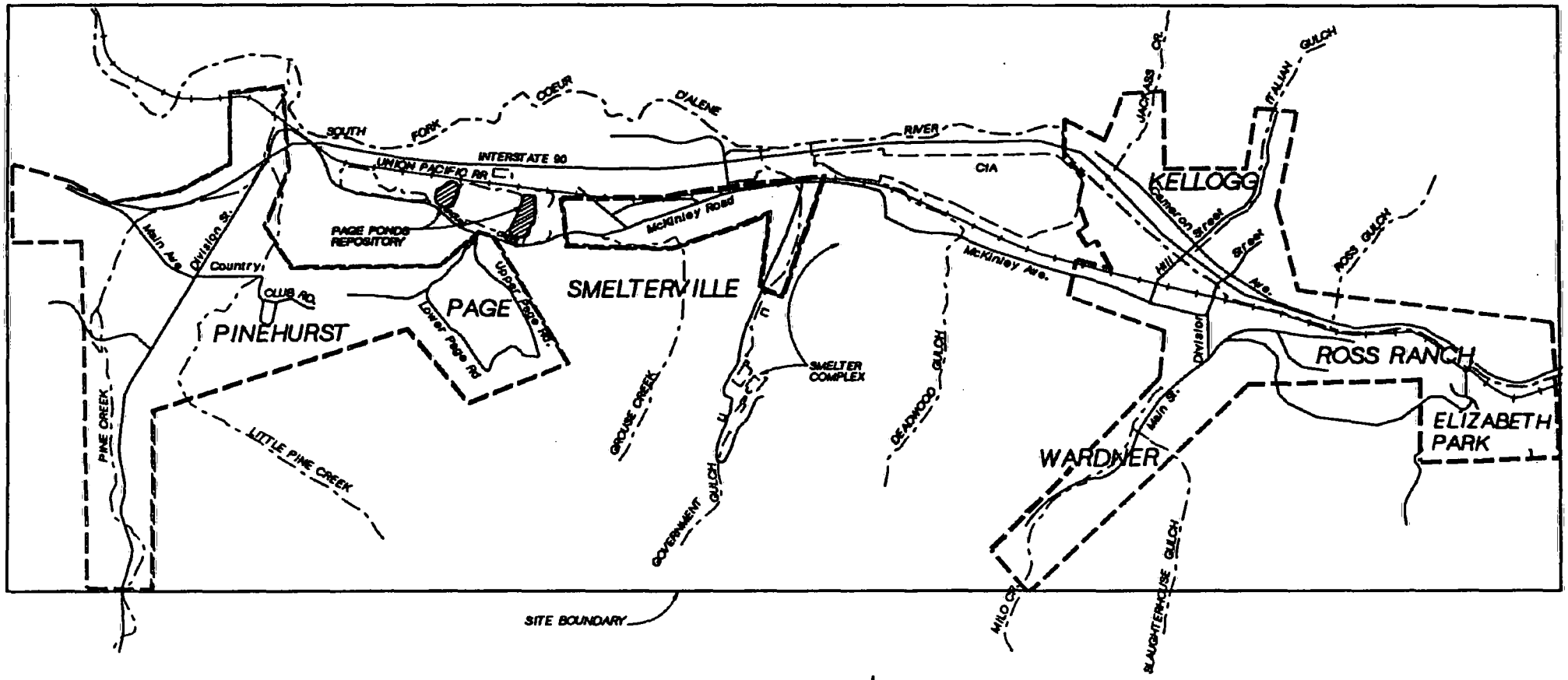


Figure 1-1
BUNKER HILL
RI/FS STUDY AREA

BUNKER HILL POPULATED AREAS RI/FS

BOI24632.D2.01



LEGEND

- ROADS
- RIVERS & STREAMS
- RAILROAD
- CITY BOUNDARY
- POPULATED AREAS PROJECT BOUNDARY

SITE PLAN

0 .5 1

MILES

N

Figure 1-2

POPULATED AND NON-POPULATED AREAS OF THE SITE

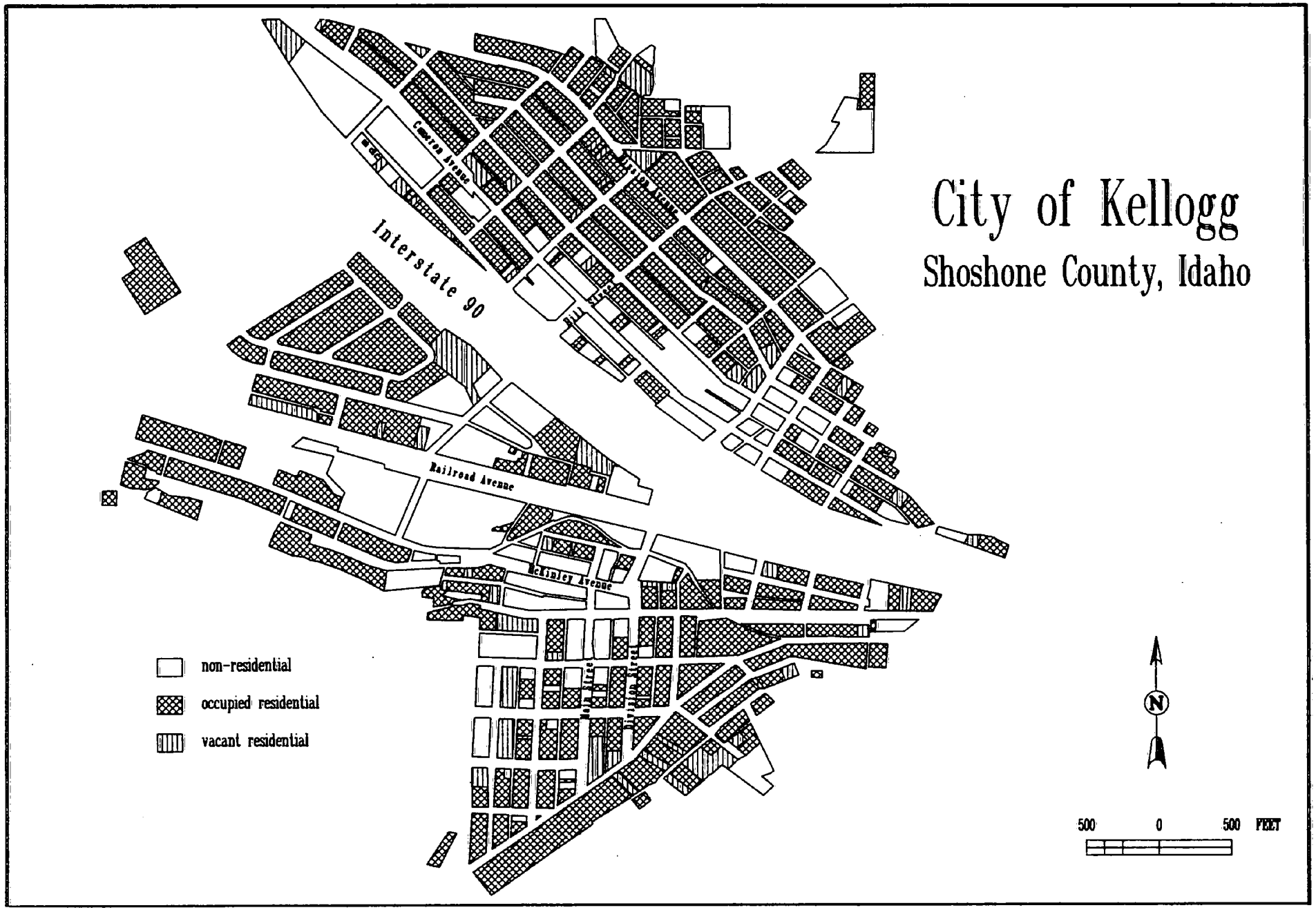


Figure 1-3
POPULATED AREAS RI/FS
RESIDENTIAL SOIL RECORD
OF DECISION

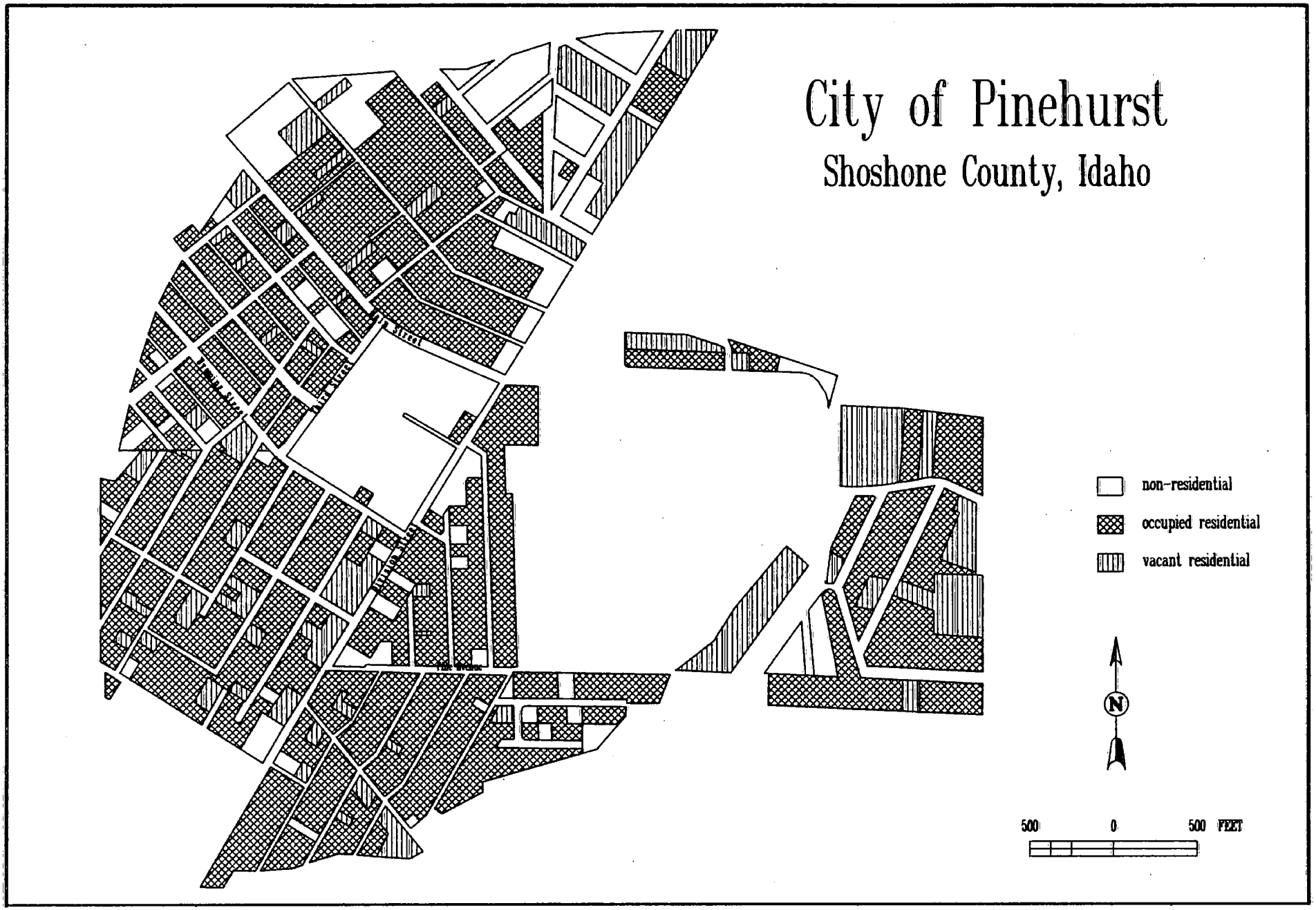
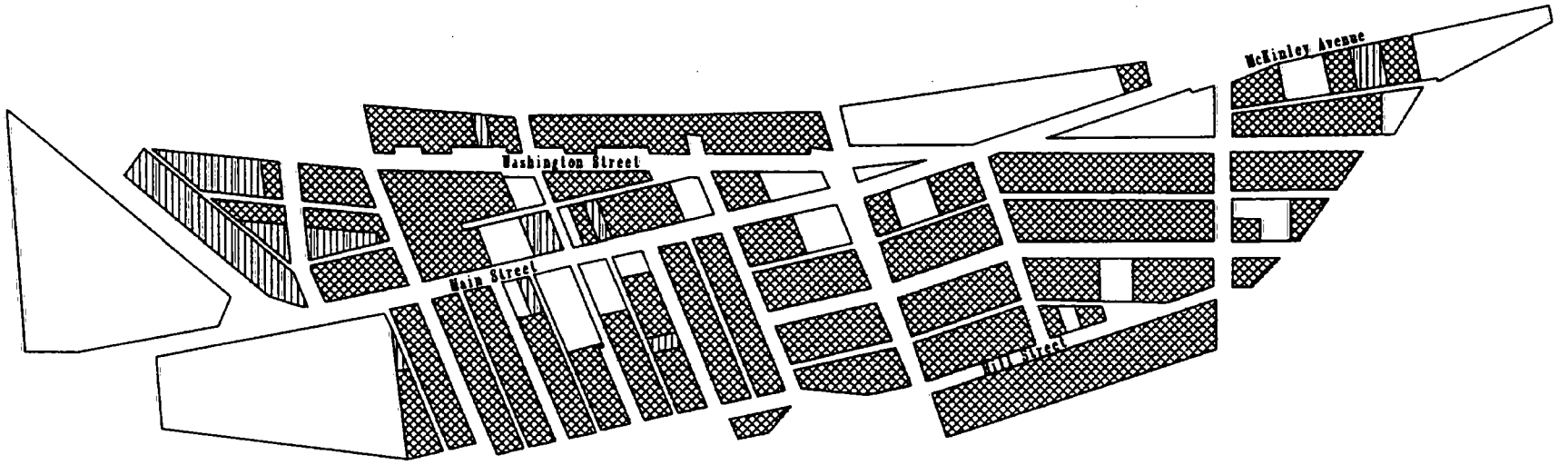


Figure 1-4
POPULATED AREAS RI/FS
RESIDENTIAL SOIL RECORD
OF DECISION

City of Smelterville

Shoshone County, Idaho



non-residential

occupied residential

vacant residential

500 0 500 FEET

Figure 1-5
POPULATED AREAS RI/FS
RESIDENTIAL SOIL RECORD
OF DECISION

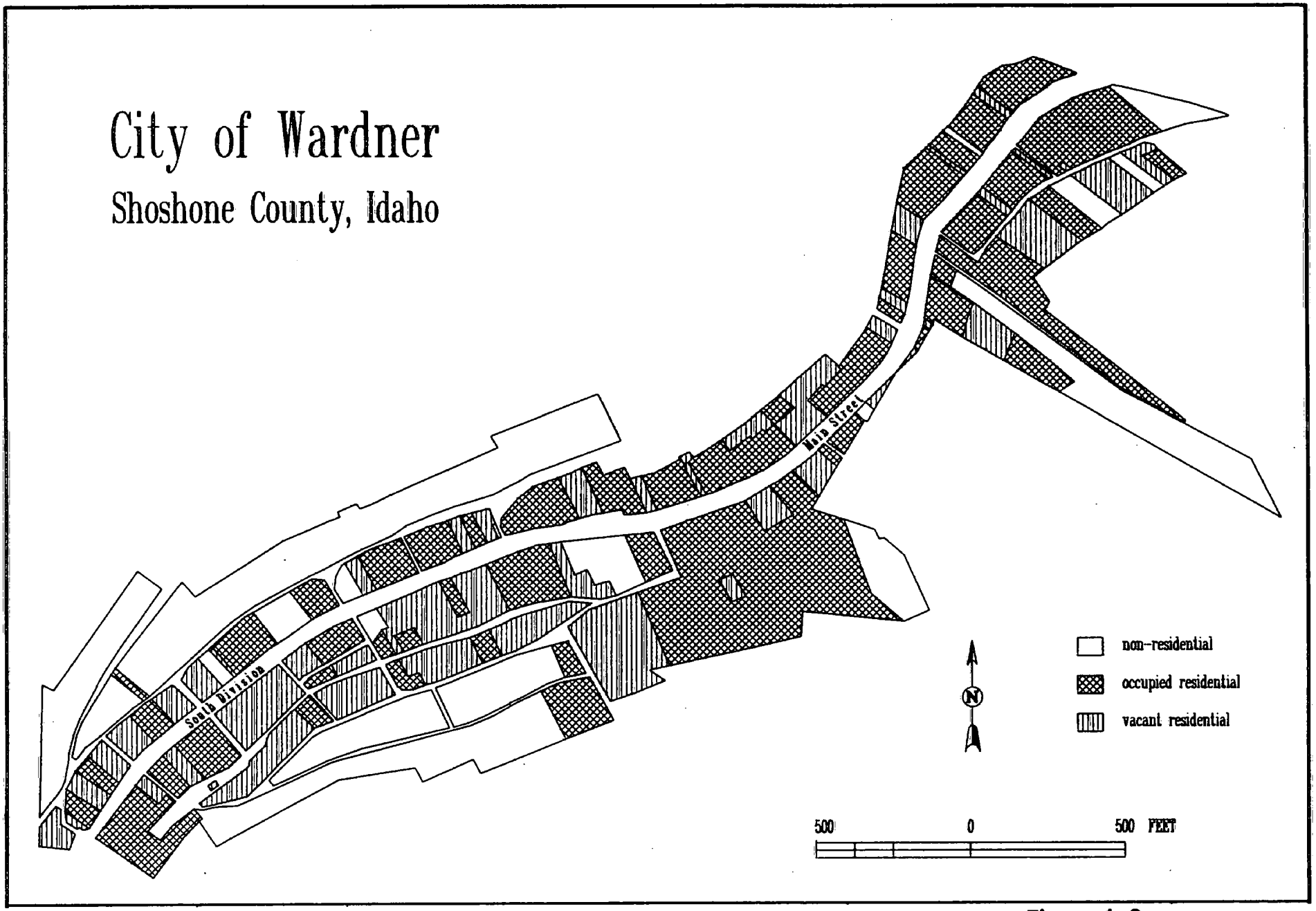


Figure 1-6
POPULATED AREAS RI/FS
RESIDENTIAL SOIL RECORD
OF DECISION

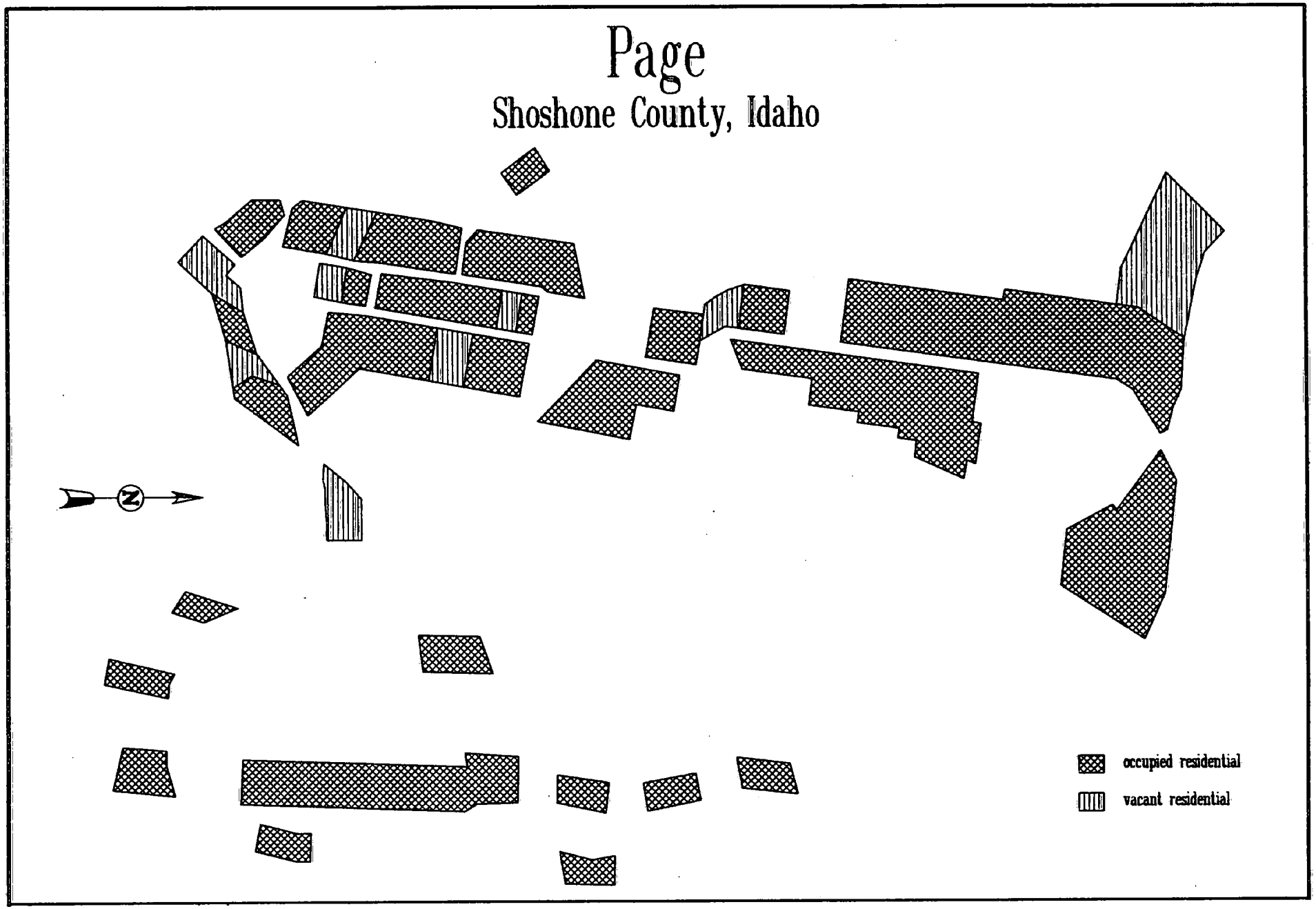


Figure 1-7
POPULATED AREAS RI/FS
RESIDENTIAL SOIL RECORD
OF DECISION

2 SITE HISTORY AND ENFORCEMENT ACTIVITIES

2.1 SITE HISTORY

The Bunker Hill Superfund Site is part of the Coeur d'Alene Mining District located in northern Idaho and western Montana. Gold was first discovered in the district in 1883. The first mill for processing lead and silver ores at the Bunker Hill site was constructed in 1886 and had a capacity of 100 tons of raw ore per day. Other mills subsequently were built at the site and the milling capacity ultimately reached 2,500 tons per day.

The Kellogg-based Bunker Hill and Sullivan Mining Company, incorporated in 1887, was the original owner and operator of the Bunker Hill complex. In 1956, the name was changed to the Bunker Hill Company and in 1968, Gulf Resources and Chemical Company of Houston, Texas, purchased the company and operated the smelter until it was closed in late 1981. The complex was purchased in 1982 by the Bunker Limited Partnership (BLP), headquartered in Kellogg, Idaho. BLP subsequently sold portions of the complex properties to several related or affiliated entities including:

- Syringa Minerals Corporation
- Crescent Mine
- Bunker Hill Mining Company (U.S.), Inc.
- Minerals Corporation of Idaho

The Bunker Mining Company resumed mining and milling operations in 1988 and subsequently ceased those operations in 1991.

The Bunker Hill and Sullivan Mining Company was originally involved only in mining and milling lead and silver ores from local mines. From 1886 until 1917, the lead and silver concentrates produced at the site were shipped to offsite smelters for processing. Construction of the lead smelter began in 1916 and the first blast furnace went online in 1917. Over the years, the smelter was expanded and modified. At the time of its closure in 1981, the lead smelter had a capacity of over 300 tons of metallic lead per day. An electrolytic zinc plant was put into production at the site in 1928. Two sulfuric acid plants were added to the zinc facilities in 1954 and 1966, and one sulfuric acid plant was added to the lead complex in 1970. When it was closed in 1981, the zinc plant's capacity was approximately 285 tons per day of cast zinc. A phosphoric acid plant was constructed at the site in 1960 and a fertilizer plant was built in 1965. The primary products from these plants were phosphoric acid and pellet-type fertilizers of varying mixtures of nitrogen and phosphorus. The industrial complex ceased operation in 1981 except for limited mining and milling operations mentioned above.

Control of atmospheric emissions, solid waste disposal, and wastewater treatment at the Bunker Hill complex evolved with changing technologies and regulations. Initially, most liquid and solid residue from the complex was discharged into the South Fork of the Coeur d'Alene River and its tributaries. The river periodically flooded and deposited waste material laden with lead, zinc, and other heavy metals onto the valley floor. Operation and disposal practices caused deposition of hazardous substances throughout the valley. Leaching of these deposits through the soil has contributed to heavy metal contamination of the river and groundwater.

A 1973 fire in the baghouse at the lead smelter main stack severely reduced air pollution control capacity. Total particulate emissions of about 15 to 160 tons per month, containing 50 to 70 percent lead, were reported from the time of the fire through November 1974. This compares to emissions of about 10 to 20 tons per month prior to the fire. The immediate effects of increased total lead emissions and high total lead in air content were observed in a 1974 public health study where a significant

number of children had elevated blood lead levels. Lead smelter stack emissions following the 1973 baghouse fire are a significant source of current site contamination.

In 1977, tall stacks (>600 feet) were added at both the zinc and lead smelters to more effectively disperse contaminants from the complex. These devices decreased sulfur oxides concentrations in the late 1970s. The smelter and other Bunker Hill Company activities ceased operation in December 1981, and portions of the smelter complex have since been salvaged for various materials, machinery, and scrap.

Although in recent years some wastes have been shipped offsite for disposal in landfills, thousands of tons of sludge, tailings, flue dust, and other wastes remain at the complex. These materials contain high levels of arsenic, lead, and other metals.

2.2 INITIAL INVESTIGATIONS

Contaminated air, soils, and dusts have been identified as contributors to elevated blood lead levels in children living in the Populated Areas of Bunker Hill site. Environmental media concentrations of site contaminants of concern in the Populated Areas are strongly dependent on distance from the smelter facility and industrial complex. Residential areas nearest the smelter complex have shown the greatest air, soil, and dust lead concentrations; the highest childhood blood lead levels; and the greatest incidence of excess absorption in each of the studies conducted in the last decade.

Health effects of environmental contamination were first documented following the smelter baghouse fire and associated smelter emissions in 1973 and 1974. Up to 75 percent of the preschool children tested within several miles of the complex had blood lead levels at that time that exceeded Centers for Disease Control (CDC) criteria. Several local children were diagnosed with clinical lead poisoning and required hospitalization. Lead health surveys conducted throughout the 1970s confirmed that excess blood lead absorption was endemic to this community. Concurrent epidemiologic and environmental investigations concluded that atmospheric emissions of particulate lead from the active smelter were the primary sources of environmental lead that affected children's blood lead levels prior to 1981. Contaminated soils were also found to be a significant, however secondary, source of lead to children in the 1970s.

Following lead poisoning incidents in 1973, a number of activities were instituted to decrease lead exposures and uptakes in the community. In an August 1974 survey, 99 percent of the 1- to 9-year-old children living within 1 mile of the smelter were found to have blood lead levels in excess of 40 µg/dl. The frequency of abnormal lead absorption (defined at the time as greater than or equal to 40 µg/dl) was found to decrease with increasing distance from the smelter. Following the announcement of these results, emergency measures were initiated to reduce the risk of lead intoxication. These measures included: chelation of children with blood lead over 80 µg/dl, purchase and destruction of as many homes as possible within 0.5 mile of the smelter, distribution of "clean" soil and gravel to cover highly contaminated areas, initiation of a hygiene program in the schools, and reduction of ambient air lead levels through reduction of smelter emissions. Street cleaning and watering in dust-producing areas occurred during several periods in the late 1970s. Subsidies were provided by the Bunker Hill Company to residents for the purchase of clean top soil, sand, gravel, grass seed and water, thereby promoting some yard cover in the community.

An analysis of historical exposures to children who were 2 years old in 1973 suggests a high risk to normal childhood development and metal accumulation in bones because of extreme exposures; these exposures could offer a continuing lead body burden in these children because of its long physiologic half life. Females who were 2 years of age during 1973 are now of childbearing age and, even with maximum reduction in current exposure to lead, the fetus may be at risk because of resorption of bone lead stores in the young women.

Following smelter closure in late 1981, airborne lead contamination decreased by a factor of 10, from approximately 5 $\mu g/m^3$ to 0.5 $\mu g/m^3$. A 1983 survey of children's blood lead levels demonstrated a significant decrease in community exposures to lead contamination; however, the survey also found that several children, including some born since 1981, continued to exhibit blood lead levels in excess of recommended public health criteria. Accompanying epidemiological analyses suggested that contaminated soils and dusts represented the most accessible sources of environmental lead in the community.

Childhood mean blood lead levels have continued to decrease since 1983. These decreases are likely related to a nationwide reduction in dietary lead; reduced soil, dust, and air levels in the community; intake reductions achieved through denying access to sources; and the increase in family and personal hygiene practiced in the community. The latter is reflected in the implementation of a comprehensive Community Health Intervention Program in 1984 that encourages improved hygienic (housekeeping) practices, increased vigilance, parental awareness, and special consultation on individual source control practices such as lawn care, removals, and restrictions. The Community Health Intervention Program was initiated specifically to reduce the potential for excess absorptions and minimize total absorption in the population until initiation of remedial activities. Total blood lead absorption among the community's children has been reduced nearly 50 percent since 1983. The incidence of lead toxicity (blood lead > 25 $\mu g/dl$) has fallen from 25 percent to less than 5 percent for children in the highest exposure areas. Recent blood lead monitoring has shown 37 to 56 percent of area children surveyed exceed the blood lead level of 10 $\mu g/dl$.

2.3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)

The Bunker Hill site was placed on the National Priorities List (NPL) in September 1983 (48 FR 40658). RI/FS activities were initiated in late 1984 following completion of the 1983 Lead Health Study.

The Bunker Hill Site Characterization Report (SCR) was the first step in the RI process. The objective of the SCR was to describe and analyze existing information. The existing information included files from federal, state, and local agencies, as well as information obtained from past and present owners and operators of the industrial complex. The SCR was then used to identify data gaps and develop work plans for the remedial investigation.

In recognition of the history and complexity of this site, and the continuing need for active health intervention efforts, the EPA and IDHW developed an integrated project structure for RI/FS activities. The site was divided into two principal portions--the Populated Areas and the Non-populated Areas. The Populated Areas include several cities, all residential and commercial properties located within those cities, and other residential properties. The Non-populated Areas include the smelter complex, river floodplain, barren hillsides, groundwater, air pollution, and industrial waste components of the site.

While separate RI/FS efforts were initiated for each portion of the site, U.S. EPA Region 10 retained oversight and risk assessment responsibilities for both. IDHW conducted the Populated Areas RI/FS. The Non-populated Areas RI/FS is being conducted by Gulf Resources & Chemical Corporation under a U.S. EPA Administrative Order on Consent signed by U.S. EPA in May 1987. Table 2-1 lists the major geographic features and investigation emphases.

Table 2-1
Major Features and Investigation Emphasis

Major Geographic Features	Investigation Emphasis
Populated Areas	
• Pinehurst • Page • Smelterville • Kellogg • Wardner • Ross Ranch • Elizabeth Park	• Contaminated Soils and Dust • Residential Properties • Commercial Properties • Roadways/Railways • Fugitive Dust Sources • House Dust • Airborne Contamination
Non-populated Areas	
• North-Facing Hillsides • South-Facing Hillsides • Denuded Hillsides Near Complex • Bunker Hill Smelter Complex Area • Central Impoundment Area (CIA) • Smelterville Flats • Industrial Corridor • River Channel Area • East Page Swamp • West Page Swamp • Pine Creek Channel • Page Pond	• Soil and Surface Materials • Surface Water • Groundwater • Air/Atmospheric Transport • Vegetation • Buildings/Process Equipment • Waste Piles • Buried Wastes • Contaminant Migration

2.4 HISTORY OF CERCLA ENFORCEMENT

Several companies have been identified by U.S. EPA as potentially responsible parties (PRPs) for the Bunker Hill Superfund Site. Table 2-2 lists the PRPs for Bunker Hill and the dates they were notified. The PRPs represent a combination of past and present property owners, owners and operators of the various smelting, processing, and production facilities located within the industrial complex, and upstream mining companies that were responsible for tailings discharges into the South Fork of the Coeur d'Alene River that have contributed to the contamination of the site.

Table 2-2 Potentially Responsible Parties Identified for the Bunker Hill Superfund Site	
Name of Company	**Notification Date**
Gulf Resources and Chemical Corporation	10-18-84
Bunker Limited Partnership	10-18-88 and 10-04-89
Minerals Corporation of Idaho	10-04-89
Bunker Hill Mining Company (U.S.), Inc.	10-04-89
BH Properties, Inc.	10-04-89
Syringa Minerals Corporation	10-04-89
Hecla Mining Company	10-04-89
Stauffer Chemical Company	10-04-89
ASARCO, Inc.	02-07-90
Callahan Mining Corporation	02-07-90
Highland Surprise Consolidated-Mining Company	02-07-90
Silver Bowl, Inc.	02-07-90
Sunshine Precious Metals, Inc.	02-07-90
Union Pacific Railroad	02-07-90
Coeur d'Alene Mines Corporation	02-07-90
Sunshine Mining Company	06-07-91

In 1989, U.S. EPA recovered $1.4 million from Gulf Resources & Chemical Corporation in a settlement regarding Superfund money spent during the removal action in 1986. Agency oversight costs associated with the Non-populated RI/FS have been received from Gulf Resources & Chemical Corporation for 1987 through 1989. On May 2, 1990, U.S. EPA filed a civil action for penalties against Bunker Limited Partnership for failure to respond to U.S. EPA's October 1988 request for information. The case is still pending in U.S. District Court in Boise, Idaho.

2.5 REMOVAL ACTIONS

There have been two Superfund-financed removal actions (1986 and 1989 residential soils); one removal action was financed by the PRPs but performed by the agencies (1990 residential soils); and there have been three PRP-performed removal actions (1989 Smelter Complex Stabilization, 1990 hillsides revegetation, and 1991 residential soils, etc.).

In 1986, 16 public properties (parks, playgrounds, and road shoulders) were selected for an immediate removal action because these properties contained high concentrations of lead and were frequented by many area children. The action consisted of placing a barrier between children and the underlying

contaminated soil. Six inches of contaminated materials were excavated, and clean soil, sod and/or gravel were imported for replacement. Excavated material was temporarily stored within site boundaries at property owned by the Idaho Transportation Department (ITD).

In 1989, the U.S. EPA and IDHW began a residential soil removal program. The program prioritized yards that had a lead concentration greater than or equal to 1,000 ppm and housed either a young child or a pregnant woman. This action consisted of removing 6 to 12 inches of contaminated material from yards and replacing it in kind with clean material. Contaminated soils were again stored at the ITD property within site boundaries. In 1989, yard soil replacement was completed at 81 homes and 2 apartment complexes within the Populated Areas of the site.

An Administrative Unilateral Order was issued October 24, 1989 (U.S. EPA Docket Number 1089-10-21-106), to Bunker Limited Partnership, Minerals Corporation of Idaho, Bunker Hill Mining Company, (U.S.) Inc., and Gulf Resources and Chemical Corporation. The purpose of the order was to implement actions to stabilize several problem areas within the industrial complex. Actions required by the order included immediate cessation of salvaging activities onsite, establishment of site access restrictions, development of a dust control plan, and stabilization and containment of the copper dross flue dust pile.

An Administrative Unilateral Order was issued to all named PRPs on May 15, 1990 (U.S. EPA Docket No. 1090-05-25-106(a)), which required the continuation of the residential soil removal program within the boundaries of the Superfund site. Settlement of this order resulted in an agreement between U.S. EPA and eight of the PRPs (Gulf Resources & Chemical Corporation, Hecla Mining Company, ASARCO, Inc., Stauffer Chemical Company, Callahan Mining Corporation, Coeur d'Alene Mines Corporation, Sunshine Precious Metals, Inc., and Union Pacific Railroad) for payment of $3,180,000 to U.S EPA (U.S. EPA Docket Number 1090-05-35-106) for performance of the 1990 residential soil removal action. Yard soil removal and replacement for an additional 130 yards were performed in 1990. Excavated soils from this removal action were stored at the Page Ponds tailings impoundment.

An Administrative Order on Consent to implement hillside stabilization and revegetation work was entered into between U.S. EPA and Gulf Resources & Chemical Corporation, and Hecla Mining Company, on October 1, 1990 (U.S. EPA Docket No. 1090-10-01-106). The objectives of this Order are to control erosion by reestablishing a native, closed, coniferous forest and understory vegetative cover to approximately 3,200 acres of barren hillsides and to perform terrace repair and construction of detention basins, and repair of the rockslide areas in Wardner and Smelterville. Planting of trees is scheduled to be completed in 1996.

In July of 1991, an Administrative Order on Consent (U.S. EPA Docket No. 1091-06-17-106(a)) was entered into between U.S. EPA and nine PRPs (Gulf Resources & Chemical Corporation, Hecla Mining Company, ASARCO, Inc., Stauffer Chemical Company, Callahan Mining Corporation, Coeur d'Alene Mines Corporation, Sunshine Precious Metals, Inc., Union Pacific Railroad, and Sunshine Mining Company) that required the PRPs to perform the residential soil removal program. It is expected that approximately 80 more properties will be cleaned up this year. As in 1990, excavated soils were stored at the Page Ponds tailings impoundment. Under this Order, the parties have also agreed to undertake sitewide dust control actions; monitor air, groundwater and surface water; enhance the fire fighting capability at the industrial complex; and provide funding to purchase high-efficiency vacuums for loan as part of the Health Intervention Program.

3 HIGHLIGHTS OF COMMUNITY PARTICIPATION

There has been a long history of community relations activities in the Silver Valley. Since discovery of elevated blood leads in children in 1974, the IDHW, Panhandle Health District (PHD), and the CDC have continually worked with area residents to reduce exposures to lead. In 1985 the Shoshone County Commissioners selected a nine-member Task Force to serve as a liaison between the Bunker Hill Superfund Project Team (comprised of representatives of U.S. EPA and IDHW and contractors) and the community. The PHD was contracted by IDHW to perform community relations tasks for the Bunker Hill Superfund Site. A full-time IDHW staff person has also been stationed onsite from mid-1987 to present. Part of their duties is to assist in community relation activities when needed.

The focus of community contact has been the nine-member Silver Valley Task Force. There have been 35 public task force meetings since May of 1985. These meetings consisted of presentations by the Bunker Hill Project Team with time for questions and statements from both the Task Force and the general community. Twenty-three fact sheets have been produced since May 1985 to discuss various aspects of the RI/FS activities at the site. Site records have also been made available to the public through four public information repositories. The community was involved in the selection of activities associated with the residential soil removal actions through a public comment period. This experience, along with the opportunity to observe the cleanup activity over the last 2 years, has helped familiarize the community with the remediation of residential soils.

A series of meetings has been held between the PHD and local planning and zoning commissions, city councils, and county commissioners to help develop the "Evaluation of Institutional Controls for the Bunker Hill Superfund Site." Institutional control development presentations were also made to local business and community groups.

The "Risk Assessment Data Evaluation Report," the "Residential Soils Focused Feasibility Study," the "Proposed Plan for Cleanup of Residential Soil within the Populated Areas of the Bunker Hill Superfund Site," and "An Evaluation of Institutional Controls for the Bunker Hill Superfund Site" were released for public review April 29, 1991. These four documents were made available in the administrative record file, which is located at the Kellogg City Hall, and the four information repositories, which are located at the Kellogg City Hall, Kellogg Public Library, Smelterville City Hall, and Pinehurst/Kingston Library. The notice of availability of the documents was published in the "Shoshone News Press" from April 26 through April 30, 1991. The notice outlined the remedial alternatives evaluated and identified the proposed alternative. A public comment period was established for April 29 to May 31 and was extended to June 30, 1991, after a request to extend the period was received. Extension of the public comment period was published in the "Shoshone News Press" May 24 through 26, 1991. A public hearing was held May 23, 1991, to answer questions and take comments. There were approximately 100 attendees at the meeting. A transcript of questions asked and answers given at the public hearing is included in the Administrative Record. Responses to written comments are included in the Responsiveness Summary, which is part of this Record of Decision.

4 SCOPE AND ROLE OF OPERABLE UNIT

The rationale for separating the Bunker Hill RI/FS into two parts involved both data availability and confidentiality issues associated with an investigation of private residential properties within the Populated Areas. With both environmental data and an abundance of human health related data, collected as part of the epidemiological studies, the agencies believed that the Populated Areas RI/FS could best be completed by government agencies in order to honor confidentiality agreements with individuals and individual property owners.

The RI--Risk Assessment Data Evaluation Report (RADER) for the Populated Areas of the Site--has been completed. The residential soils feasibility study is also complete and is the first unit to be addressed in a Record of Decision. The other units that are related to the Populated Areas investigation that have not been addressed in a decision document include: house dust, commercial properties, and road shoulders and rights-of-way. The agencies originally expected to address these issues in a second ROD in 1992; however, the PRPs have approached U.S. EPA and IDHW with a proposal for a sitewide cleanup that involves all facets of both the Populated and Non-populated Areas. The effort to complete the Residential Soils ROD was maintained, because soils are a primary risk to the residents; however, consolidation of all (see Table 2-1) remaining issues into what is referred to as the expedited FS is ongoing. The expedited FS is expected to support a second ROD for the site that will address all contaminated areas and media not covered in this ROD.

The RADER concluded that subchronic lead absorption among young children is the most significant health risk posed by this site. The greatest risks to young children are associated with ingestion of residential yard soils, house dusts, and locally grown produce. Exposure to residential soils is a primary health risk to area residents, although residential soils are not a "principal threat" as defined by U.S. EPA. The remedial action described in this ROD is intended to minimize direct contact with and ingestion of lead-contaminated residential soils by excavation and replacement of those soils with clean material. While yard soils represent a primary risk to local residents, it is important to recognize that yard soils represent only one component of exposure in these communities. Other sources of contamination within the site must be addressed to prevent additional population exposures and recontamination of residential soil because of contaminant migration. No direct action is being taken for house dust lead reduction at this time; however, it is expected that house dust lead concentrations will decrease as yard soil lead concentrations decrease and fugitive dust sources are controlled. Part of the ongoing Health Intervention Program will be to lend high-efficiency home vacuum cleaners to interested residents. Fugitive dust control efforts undertaken as part of the 1991 removal action will further reduce exposures and the transport of contaminated materials.

Use of a threshold level of 1,000 ppm lead (i.e., remedial action at any yard with a lead concentration of 1,000 ppm or above) will result in residential community mean soil lead concentrations of approximately 200 to 300 ppm. Current community mean soil lead concentrations are approximately 3,000 ppm. The goal is to reduce soil lead concentrations such that mean blood lead levels are below 10 μg/dl and the risk for any individual child to have a blood lead level that exceeds 10 μg/dl is minimized.

Locally grown produce is a potentially significant exposure route for cadmium and lead to pregnant women as well as young children. This action will provide for safe produce gardening areas to ensure that this exposure pathway is minimized. Currently, the Health Intervention Program recommends that produce grown in local gardens not be consumed.

There are approximately 2,700 residential properties onsite. Of those, approximately 50 percent have been sampled. Of the yards sampled, 65 percent have surface soil concentrations of lead greater than or equal to 1,000 ppm. If the unsampled yards show a similar distribution, this action is expected to involve remediation of 65 percent (approximately 1,800) of the residential yards within the site.

5 SITE CHARACTERISTICS

5.1 PHYSICAL SETTING

Topography of the Silver Valley consists of an alluvial floodplain bordered on the north and south by steep mountains. The floodplain ranges in width from about 0.1 mile east of Kellogg to approximately 0.9 mile near Smelterville. The elevation of the valley floor ranges from 2,160 feet above mean sea level at the west end to 2,320 feet at the east end of the project site. The valley floor is nearly level, with slopes typically less than 1 percent. The mountains rising from the valley range from 500 to 2,500 feet above the valley floor. The mountainsides typically exhibit slopes of 45 to 90 percent and at some points exceed 110 percent. Numerous valleys and gulches cut through the mountains and generally trend north to south, intercepting the valley of the South Fork Coeur d'Alene River.

Most residences are located on the valley floor or at the toe of the hillside slopes. Valley floor soils were formed from alluvially deposited materials and have been strongly influenced by mine tailings placed in the river as a result of past mining activity. In general, the alluvial valley-fill deposits are comprised of silty to clayey sand and gravel. Soil parent materials at the toe of the steep slopes are colluvial and mixed colluvial/alluvial and are highly erosive. Residential soils have been modified by typical excavation and backfill practices utilized during home construction.

Vegetation in the residential areas includes conifer and deciduous trees, grass lawns varying in quality with level of maintenance, some vegetable and flower gardens, and native grasses in undeveloped or steeply sloping areas.

The meteorology of the site is dominated by mountain/valley drainage winds related to the local topography. The orientation of the valley effectively channels winds in an east-west direction. Nocturnal winds average 4.5 mph and tend to be from the east. Late morning and afternoon winds are from the west and southwest, averaging approximately 8 mph. The mean precipitation of the area ranges from 30.4 inches at Kellogg to 40.5 inches at the nearby city of Wallace, 10 miles east (upstream) of the site. Data from the National Weather Service collected from 1951 to 1980 show an annual mean temperature in Kellogg of 47.2°F. A record high of 111°F was reached on August 5, 1961, and a record low of -36°F on December 30, 1968. On the average, 28 days per year reach a high temperature of 90°F or greater, and 143 days reach a low of 32°F or less.

5.2 NATURE AND EXTENT OF CONTAMINATION

The scope of the Populated Areas RI included residential soil, fugitive dust source, house dust, and air monitoring studies. Contaminants of concern for residential soils are antimony, arsenic, cadmium, copper, lead, mercury, and zinc. Lead has been identified as the primary contaminant of concern based on health studies.

Residential yard soil concentrations are presented in Table 5-1. The right-hand column of the table presents background mean concentrations for comparison. Data from the residential yards show that metal concentrations in surficial soils are greatly increased over background. Residential soil contaminant concentrations decrease with increasing distance from the mill and smelter complex and result from a variety of historical industrial activities.

Metal contamination to depths as great as 3 feet have been identified in residential soils. Contamination sources at this depth are primarily alluvially deposited tailings.

Table 5-1

SUMMARY OF RESIDENTIAL SOIL METAL CONTAMINATION LEVELS

SMELTERVILLE

Metal	Concentration, ppm, dry wt. (ppm) Arith. Mean	Median	Geom. Mean	95%ile	Min.	Max.	N	Background Mean
As	59	55	52	126	3	254	200	< 10
Cd	41	34	33	101	2	208	200	0.8
Cu	101	88	87	215	11	371	200	28
Hg	6	5	4	18	0.4	50	199	0.1
Pb	3580	3010	2690	10400	202	16100	200	43
Sb	16	12	11	34	1	559	200	1
Zn	914	852	774	2185	134	4220	200	95

KELLOGG*

Metal	Concentration, ppm, dry wt. (ppm) Arith. Mean	Median	Geom. Mean	95%ile	Min.	Max.	N	Background Mean
As	58	53	51	108	4	267	704	< 10
Cd	23	20	20	45	1	113	704	0.8
Cu	83	71	71	166	0.6	1280	704	28
Hg	3.5	2.9	2.7	8	0.12	16	703	0.1
Pb	2701	2330	2147	5830	97.2	17800	704	43
Sb	11	9.5	9	25	1.4	108	704	1
Zn	834	719	714	1810	139	3860	704	95

* Includes Ross Ranch and Elizabeth Park

Table 5-1

SUMMARY OF RESIDENTIAL SOIL METAL CONTAMINATION LEVELS

HARDNER

	Concentration, ppm, dry wt. (ppm)							
Metal	Arith. Mean	Median	Geom. Mean	95%ile	Min.	Max.	N	Background Mean
As	53	47	46	110	14	248	92	< 10
Cd	13	12	11	29	2	33	92	0.8
Cu	79	60	63	167	17	805	92	28
Hg	2	2	2	6	0.2	6	92	0.1
Pb	2040	1500	1450	5710	151	13200	92	43
Sb	17	7	7	27	2	663	92	1
Zn	912	820	773	2030	176	4190	92	95

PAGE

	Concentration, ppm, dry wt. (ppm)							
Metal	Arith. Mean	Median	Geom. Mean	95%ile	Min.	Max.	N	Background Mean
As	28	25	26	50	11	81	50	< 10
Cd	12	11	10	29	1	30	50	0.8
Cu	62	51	51	140	16	238	50	28
Hg	2	1	1	4	0.2	7	50	0.1
Pb	1090	810	808	3220	53	3480	50	43
Sb	7	5	5	16	2	32	50	1
Zn	1060	840	771	3090	107	4050	50	95

Table 5-1

SUMMARY OF RESIDENTIAL SOIL METAL CONTAMINATION LEVELS

PINEHURST

Metal	Concentration, ppm, dry wt. (ppm)							
	Arith. Mean	Median	Geom. Mean	95%ile	Min.	Max.	N	Background Mean
As	30	21	23	73	7	123	100	<10
Cd	6	6	5	13	1	37	100	0.8
Cu	43	40	39	85	17	167	100	28
Hg	0.5	0.4	0.4	1	0.1	4	100	0.1
Pb	683	501	463	1260	63	7990	100	43
Sb	9	7	8	19	5	41	100	1
Zn	474	394	389	1060	99	2300	100	95

Table 5-2 summarizes the percentage and number of properties within each community with yard soil lead concentrations above 1,000 ppm.

Table 5-2
Residential Properties With Lead Concentrations Above 1,000 ppm Lead

Location	Estimated Total Number of Properties	Properties >1,000 ppm Lead (%)	Approximate Number of Properties >1,000 ppm Lead
Kellogg	1,320	89	1,175
Wardner	181	69	125
Smelterville	303	88	267
Page	77	37	28
Pinehurst	837	20	167
TOTAL	2,718	65 (Avg.)	1,762

Notes:

1. The estimated total number of properties to be remediated includes vacant lots within existing residential areas.
2. The approximate number of residential properties were calculated using data for samples collected from approximately 50 percent of the total residences.
3. Information presented in this table was taken from the Risk Assessment Data Evaluation Report (RADER) for the Bunker Hill Populated Areas and TerraGraphics. Two hundred and twenty-one of these residential properties have already been remediated under the 1989/1990 phased cleanup.
4. The number of properties presented for Kellogg includes residences in Ross Ranch and Elizabeth Park.

Soil samples collected from 40 different yards were analyzed for other potential contaminants such as extractable organic compounds, chlorinated pesticides, PCBs, and mercury. Most organic analytes were not detected. However, occasional detections were noted for phthalate esters (plasticizer compounds), some polynuclear aromatic hydrocarbons (i.e., naphthalene, phenanthrene, fluoranthene, pyrene, benzo(b) fluoranthene, and benzo(a)pyrene as constituents of fossil fuels and their combustion products), and polychlorinated biphenyls (PCBs as components of electrical transformer dielectric fluids). Chlorinated pesticides were detected in several samples in each town. For those pesticides observed, the frequencies of detection range from a low of 14 percent for aldrin, lindane, and heptachlor to a high of 100 percent for DDT isomers and metabolites, chlordane, and heptachlor epoxide. Greatest concentrations and frequencies of detection for pesticides in soils were found in Smelterville, Kellogg, and Wardner, with significantly lower levels in Page. Presence of organic and pesticide contaminants in residential soil could not be related to mining and industrial activities associated with the site.

Many residential streets and roads do not have paved curbs and sidewalks. Metals concentrations from samples collected from the surface inch of the road shoulders are shown in Table 5-3. Metals concentrations in roadside samples show considerable variation, both geographically and within towns. Samples from Smelterville ranged from 249 to 60,100 ppm Pb; 3 to 487 ppm Cd; and 19 to 810 ppm As. Samples from the Sunnyside area of Kellogg (north of I-90) averaged 1,935 ppm Pb; 19 ppm Cd; and 71 ppm As. Old Town area (south of I-90) samples averaged 4,497 ppm Pb; 28.6 ppm Cd; and 81 ppm As. Wardner and Pinehurst area samples were notably lower, averaging 1,385 ppm Pb; 15 ppm Cd; and 73 ppm As. Samples of street sweeper dust showed lead contents from 1,560 to 2,230 ppm and zinc levels exceeding 10,000 ppm (1 percent).

In 1988 and 1989, efforts were undertaken to assess recontamination at sites cleaned up in the summer of 1986. Removal actions implemented during 1986 included a 6-inch removal of contaminated soils and replacement with clean materials and sod in parks and playgrounds, and asphalting or gravel cover of roadsides and parking lots. Table 5-4 summarizes the original (preremediation) lead concentrations, remedial material (clean fill) lead concentrations, and the two recontamination assessment efforts.

The few sod samples collected suggest surface recontamination rates of 10 to 100 ppm/yr lead. No recontamination was evident in either the top inch or middle of the soil fill on sodded sites or play fields. Some recontamination was evident at the interface of replaced soils and top of the original cut. Whether this was due to contaminant migration, mixing at the time of placement, or imprecise layering of the sample is unknown. Rudimentary modeling has indicated that upward migration potential exists only in isolated areas where there is shallow groundwater.

Graveled areas, particularly those used as parking lots, showed significant recontamination. Because of the low rates of surface deposition, these increases likely resulted from the continual working of the original soil layers below the replacement materials or tracking of contaminants onto the site by vehicles.

Migration and transport of contaminated solids from the industrial complex and other fugitive dust sources are a major concern in both the Populated and Non-populated Areas of the site. Windblown dusts are potentially significant contributors to contaminant concentrations in human receptor media in the Populated Areas and have been identified as a major source of public complaint. Many of the identified fugitive dust sources are barren soils and impounded wastes and storage piles that can result in significant amounts of reentrained dusts.

Eighteen major barren areas identified as having a potentially significant impact on the residential areas were sampled during remedial investigations in 1986. Table 5-5 identifies the areas sampled, the respective size of each area, the number of samples collected, summary statistics for lead content in the minus 200-mesh portion of the sample, and the average percentage (by weight) that passed the 200-mesh sieve. Antimony, arsenic, cadmium, copper, and zinc were also detected in all samples collected. Locations of the fugitive dust source areas sampled are provided in Figure 5-1.

Table 5-3
Summary of Road Shoulders and Railroad Right-of-Way Sample Survey

	Sb (ppm)	As (ppm)	Cd (ppm)	Cu (ppm)	Pb (ppm)	Hg (ppm)	Zn (ppm)
Smelterville	9.4	19.4	3	33.9	249	1.3	220
Smelterville	41.7	115	14.2	186	6,970	3.8	2,590
Smelterville	32.7	50.8	26.9	499	2,410	0.06	10,100
Smelterville	40.5	77.7	61.5	274	4,970	0.08	4,770
Smelterville	46.2	267	312	1,950	10,200	2.4	23,600
Smelterville	534	810	487	2,820	60,100	26.2	20,200
Kellogg Sunnyside	8.6	36.2	16.2	106	1,590	0.52	1,560
Kellogg Sunnyside	19.8	103	22.6	297	2,280	0.35	5,360
Kellogg Old Town	34.8	110	31.1	214	7,430	3.8	2,710
Kellogg Old Town	5.9	31.8	28.7	161	1,990	0.94	3,270
Kellogg Old Town	22.6	102	26	305	4,070	0.79	7,210
Wardner	5.2	44.4	12.2	352	1,300	0.16	8,560
Pinehurst	23.2	87.1	11.2	131	1,010	0.24	2,220
Pinehurst	9.4	19.4	9	84.9	725	0.3	1,520
Pinehurst	13.6	47.1	10.5	290	1,020	0.11	6,740
Pinehurst	18.2	85.9	24.5	475	1,580	0.06	9,980
Pinehurst	5.2	41	9	814	425	0.38	18,700
Pinehurst	12.4	149	12	570	735	0.46	12,300
Pinehurst	36.7	85.1	11.2	596	2,110	0.46	10,600
Pinehurst	21.7	96.2	36.2	700	3,560	0.6	10,900
Page	5.2	23.2	9.2	203	480	0.14	4,390
Page	5.2	24.9	11.8	487	595	0.16	11,600
Page	5.2	47.7	65.4	842	1,380	1.3	22,500
Elizabeth Park	7	15.1	5.2	99.9	329	0.28	2,200
Elizabeth Park	9.5	36.4	18.9	631	1,060	0.14	14,700

Table 5-4
1986 "Fast-Track" Removal Efforts and Lead Recontamination Surveys (Page 1 of 2)

Site	1985 U.S. EPA/ IDHW Pre-removal Levels	1986 Removal Action[a]	Recontamination Surveys					
			1988 Sample Results		1989 Sample Results			
City Park Smelterville-S4	8,370 ppm (in playground area)	Playground 6" removal covered with bark chips	Dust from tennis court[b] Playground bark chips	17,800 ppm Pb 792 ppm Pb	Playground Bark Middle Fill Bottom Fill Top of Cut	Core 1 552 ppm 403 ppm 128 ppm 3,510 ppm	Core 2 1,020 ppm 19 ppm 148 ppm 4,910 ppm	Core 3 489 ppm 32 ppm 169 ppm 4,410 ppm
City Park Smelterville-S5		Turnout Asphalted	Turnout dust from asphalt	2,840 ppm Pb	No Sampling			
McKinley Avenue Smelterville-S2	24,000 ppm	6" removal and gravel fill	Road shoulders gravel West End-North West End-South Middle-North Middle-South East End-North East End-South	 1,930 ppm Pb 3,230 ppm Pb 3,480 ppm Pb 2,740 ppm Pb 3,820 ppm Pb 2,620 ppm Pb	No Sampling			
Gold Street Park Kellogg-K10	216 ppm	6" removal replace with pea gravel	Pea Gravel Near fence In disturbed area	 1,320 ppm Pb 438 ppm Pb	No Sampling			
Riverside Park Kellogg-K9	1,205 ppm	6" removal and replace	Soil West Side Monkey bars Slide Swings	 35 ppm Pb 56 ppm Pb 37 ppm Pb 33 ppm Pb	No Sampling			
Station Avenue Kellogg-K2	11,100 ppm	Removal to base and gravel cover	West End-North West End-South East End-North East End-South	514 ppm Pb 408 ppm Pb 317 ppm Pb 339 ppm Pb	No Sampling			

Table 5-4
1986 "Fast-Track" Removal Efforts and Lead Recontamination Surveys (Page 2 of 2)

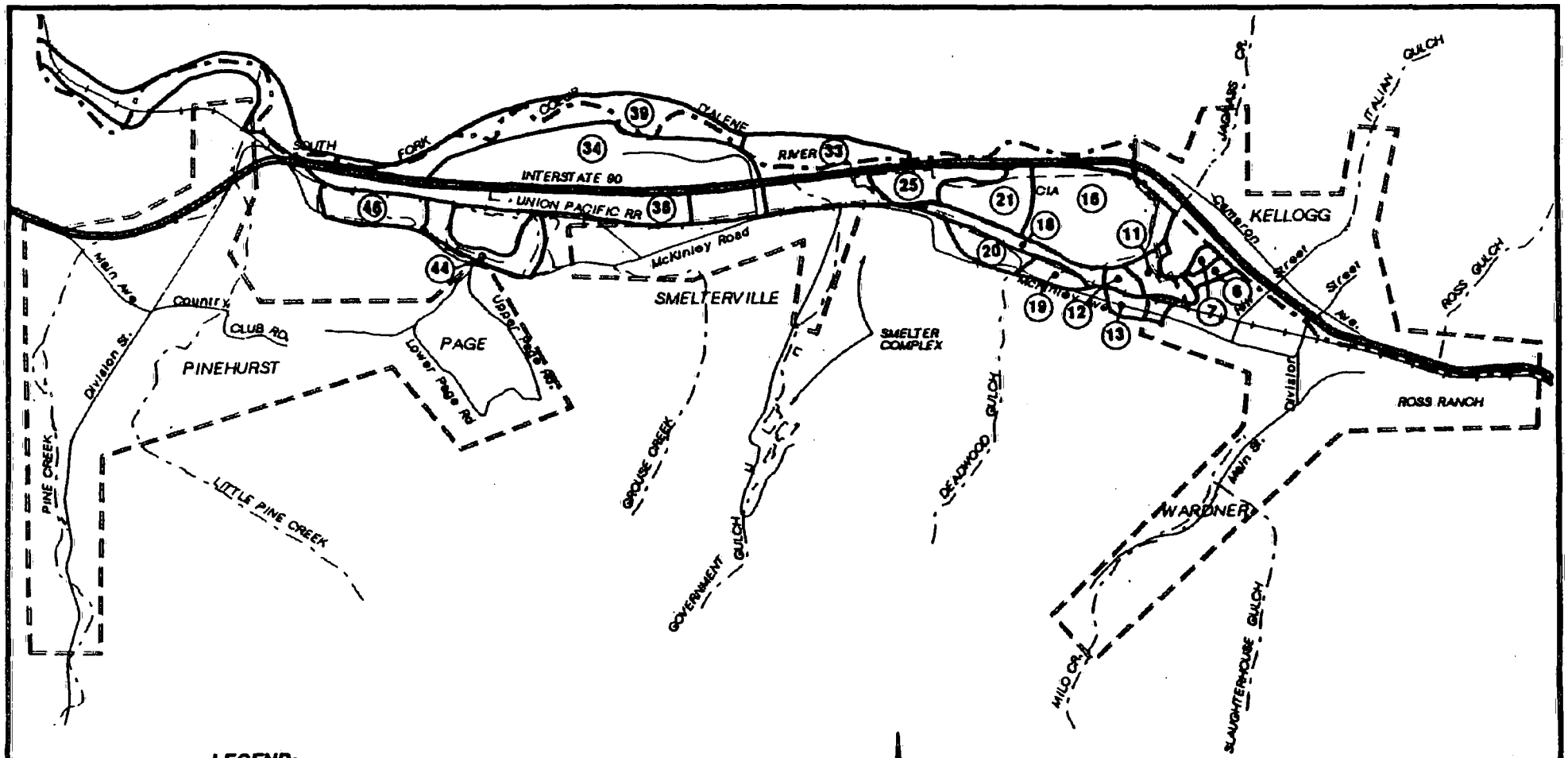
Site	1985 U.S. EPA/ IDHW Pre-removal Levels	1986 Removal Action[a]	Recontamination Surveys					
			1988 Sample Results		1989 Sample Results			
Teeters Field Kellogg-K1	2,863 ppm	6" removal and replacement of infield area	Infield Backstop Duplicate	70 ppm Pb 306 ppm Pb 70 ppm Pb	Infield	Core 1	Core 2	Core 3
					0-1 Inch	22 ppm	77 ppm	43 ppm
					Middle Fill	34 ppm	52 ppm	9 ppm
					Bottom Fill	120 ppm	188 ppm	373 ppm
					Top of Cut	4,130 ppm	5,500 ppm	8,350 ppm
Memorial Park Kellogg-K4	2,278 ppm	6" removal infield replaced Play areas 6" removal and replaced	Infield Road[b] South gravel[b] North gravel[b] Playground	138 ppm Pb 648 ppm Pb 8,800 ppm Pb 450 ppm Pb 80 ppm Pb	Playground Area	Core 1	Core 2	Core 3
					Litter	– ppm	173 ppm	– ppm
					0-1 Inch	25 ppm	26 ppm	15 ppm
					Middle Fill	10 ppm	10 ppm	9 ppm
					Bottom Fill	324 ppm	25 ppm	26 ppm
					Top of Cut	1,770 ppm	275 ppm	509 ppm
					Infield			
					0-1 Inch	48 ppm	51 ppm	34 ppm
					Middle Fill	23 ppm	8 ppm	9 ppm
					Bottom Fill	19 ppm	15 ppm	40 ppm
					Top of Cut	921 ppm	2,040 ppm	1,760 ppm

[a]Clean soil lead concentrations 19 to 86 ppm. Clean bark lead concentrations 28 ppm.
[b]Site not remediated.

Table 5-5
Fugitive Dust Source Areas

				Lead Concentration (μg/gm)			
Map I.D. Number	Site Name	No. of Samples	Area (Acres)	Minimum	Mean	Maximum	% of Sample < 200 Mesh
6	Vacant lot west of Mineral Subdivision	8	9	13,400	19,900	26,600	15
7	Undeveloped area near the Junior High School	4	6	1,160	1,810	2,500	26
11	Area near Shoshone Apartments	8	27	30,900	49,100	68,400	28
12	Water treatment plant	4	6	40,000	43,400	48,700	22
13	Parking lot west of Concentrator Building	4	6	212,000	232,000	252,000	30
16	Central Impoundment Area (North Beaches)	20	150	117	5,530	25,300	51
18	Bunker Creek Corridor	12	33	10,300	19,300	42,400	31
19	Old homesite area	8	9	6,560	21,100	47,500	47
20	Old Gypsum Pond	8	29	8,050	62,000	85,800	18
21	New Gypsum Pond	12	61	78	2,160	10,900	30
25	Slag pile	12	26	1,370	10,700	18,200	15
33	Outdoor theater	8	83	2,950	9,190	15,900	18
34	Airport	24	232	11,100	15,500	28,200	29
38	Smelterville Corridor	16	127	11,600	19,800	32,700	33
39	River Channel Flats	12	70	3,970	5,340	6,310	6
44	Page Ponds	12	36	2,560	4,350	6,550	68
46	Page Swamp	4	44	3,850	4,710	6,000	57
	Smelterville	*	*	9,690	15,100	25,400	14

*Specifics of this sample site are confidential, as agreed to in the sampling access agreement with the property owner.



NOTE:
DESCRIPTIONS FOR SOURCE AREA IDENTIFICATION NUMBERS ARE PRESENTED IN TABLE 5-5.

Figure 5-1
POTENTIAL SOURCE IDENTIFICATION MAP FOR WINDBLOWN DUSTS

Highest metal concentrations among fugitive dust sources were found adjacent to the concentrator building, with the lead concentration averaging about 230,000 ppm (23 percent), and arsenic and cadmium levels each at approximately 10,000 ppm (1 percent). Dust content for this sample was high with 30 percent of the solids passing a 200-mesh sieve. The surrounding areas (11 and 12) also have relatively high metal contaminant levels that may be related to emissions from the concentrator area. Barren areas near Shoshone Apartments (Area 11) and the Water Treatment Plant (Area 12) exhibit approximately 49,000 ppm (4.9 percent) and 43,000 ppm (4.3 percent) lead in surface dust, respectively. The arithmetic mean lead concentration for all fugitive dust source areas is 28,400 ppm (2.8 percent). Source areas near the smelter complex and throughout the river floodplain routinely exhibited levels in excess of 2 percent lead. Percent of sample solids to pass the 200-mesh sieve ranged from 6 to 68 percent, averaging 30 percent for all samples.

Air monitoring was used to investigate air contaminant transport mechanisms. Air monitor locations are shown in Figure 5-2. Total Suspended Particulate (TSP) data are summarized in Table 5-6. Metal content of filters collected on high dust event days (defined as days with TSP>150 $\mu g/m^{3)}$ is summarized in Table 5-7. The 19 days in 1987 where blowing dust events were measured account for 43 percent of the Total Suspended Particulates (TSP) loading for the entire 116-day sampling season. The single highest day (September 2, 1987) alone accounted for nearly 10 percent of the total monitoring season loading. In 1989, the peak 10 days accounted for 48 percent of the loading for the 90-day monitoring period.

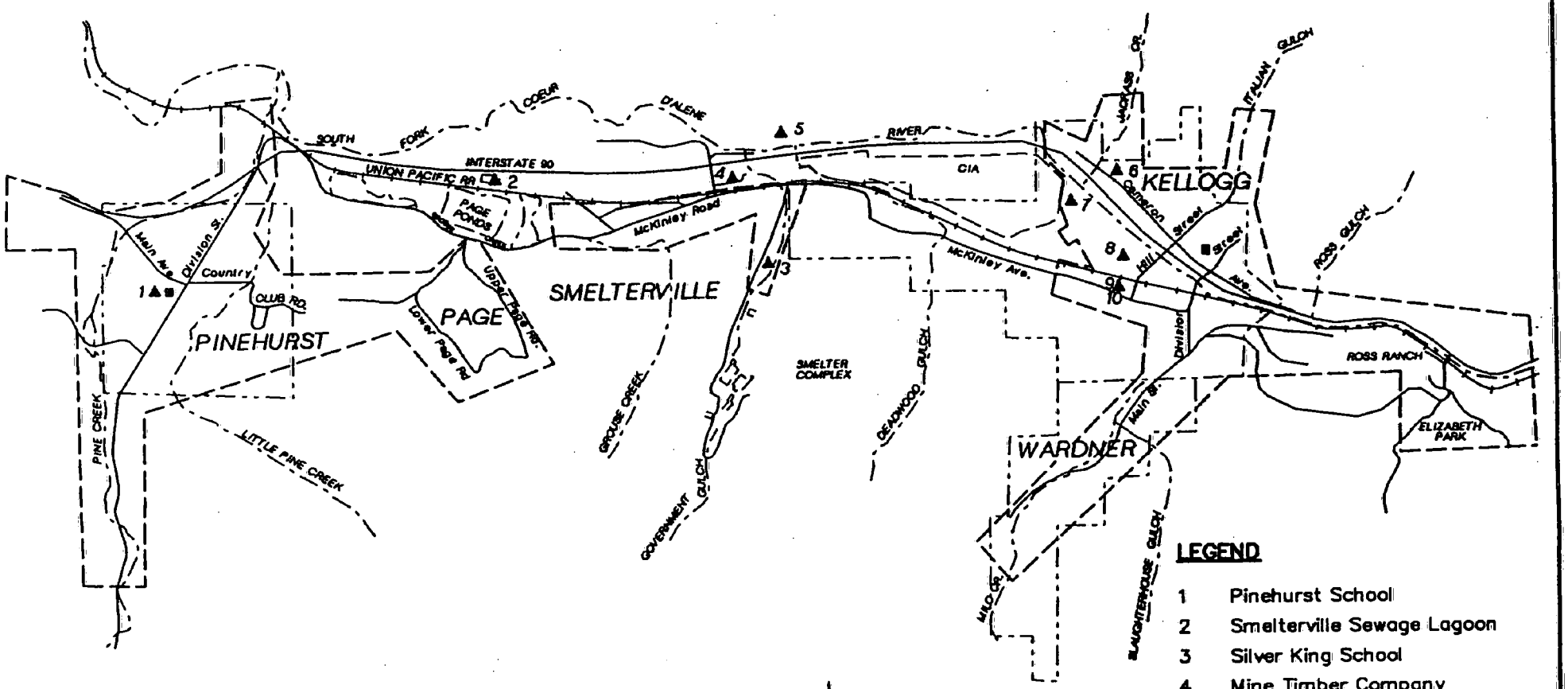
Metal contaminant levels in house dusts are presented Table 5-8. House dust metal contamination, and especially lead contamination, has decreased markedly since 1974. For example, the mean house dust lead concentration in Smelterville for 1974 was approximately 12,000 ppm (1.2 percent) and has decreased to a mean level in 1988 that is one-tenth the 1974 value (1,200 ppm). Prior to 1981, during smelter operations, the primary route for house dust lead contamination was airborne deposition of smelter lead particulate matter. Since 1981, house dust metals levels have been related to residential soil concentrations. Contaminated dusts reach homes via deposition of windblown dusts or mechanical translocation of contaminated residential soils. Several studies indicate house dust lead levels in urban and smelter communities (exclusive of those impacted by interior leaded paints) are dependent on lead levels in residential soils.

5.3 CONTAMINANT MIGRATION

Soils within the site have been contaminated by heavy metals, to varying degrees, through a combination of airborne particulate deposition, alluvial deposition of tailings dumped into the river by mining activities, and contaminant migration from onsite sources. Onsite sources include the smelter facility, industrial complex, tailings and other waste piles, barren hillsides, and other fugitive dust source areas located throughout the site. Since shutdown of the smelter, contaminant migration pathways of primary concern are fugitive dust, flooding that redeposits tailings into residential areas, water erosion that results in contaminated soil movement off of the hillsides, and human activities that either exacerbate the previous pathways or directly contaminate residential soils.

The current primary contaminant migration mechanism is airborne deposition of contaminated dusts from fugitive dust sources in and adjacent to the mining/smelting complex. Air monitoring information collected during RI/FS activities and summarized in the RADER indicates that airborne dusts transported into the Populated Areas have concentrations ranging from 1,000 to 20,000 ppm lead.

Total dry airborne particulate deposition rates average 2,532 $\mu g/m^2/hr$ and 1,768 $\mu g/m^2/hr$ at the Smelterville Mine Timber and Kellogg Middle School monitoring sites, respectively (Figure 5-2). Wet deposition rates averaged 484 and 487 $\mu g/m^2/hr$ at the Smelterville and Kellogg sites, respectively. More than 80 percent of the total particulate and more than 90 percent of most metals deposition occurs as



LEGEND

- ROADS
- RIVERS & STREAMS
- RAILROAD
- NAAQS MONITOR
- SPECIAL STUDY HIGH VOLS/WIND EVENT MONITOR

SITE PLAN

0 .5 1

MILES

N

LEGEND

1. Pinehurst School
2. Smelterville Sewage Lagoon
3. Silver King School
4. Mine Timber Company
5. Drive-In Theatre/Truck Stop
6. Kellogg Visitors Center
7. Kellogg Middle School
8. Mineral Subdivision
9. Shoshone Apartments
10. Collocated Sampler, Shoshone Apartments

Figure 5-2
AIR MONITORING LOCATIONS
BUNKER HILL POPULATED AREAS RI/FS

Table 5-6
1987 and 1989 Air Monitoring TSP Data ($\mu g/m^3$)

1987		Monitor Number									
		1	2	3	4	5	6	7	8	9	10
Minimum		13	10	8	10	4	11	6	8	5	6
Average		87	76	71	79	71	55	58	68	70	69
Maximum		589	853	821	915	811	722	904	691	690	744
		Frequency Distributions									
Loading Range											
0 - 50	n	42	68	70	60	60	84	88	61	58	56
	%	36	59	60	52	52	72	76	53	54	55
50 - 100	n	47	39	29	39	37	24	19	42	32	30
	%	41	34	25	34	32	21	16	36	30	29
100 - 150	n	18	4	10	6	11	3	4	7	9	8
	%	16	3	9	5	9	3	3	6	8	8
Over 150	n	9	5	7	11	8	5	5	6	9	8
	%	8	4	6	9	7	4	4	5	8	8

1989		Monitor Number									
		1	2	4	5	5a (PM_{10})	7	7a (PM_{10})	8	9	10
Minimum		10	9	8	6	6	0	2	8	0	20
Average		54	53	54	65	44	43	31	72	66	91
Maximum		309	349	345	683	321	278	127	390	398	341
		Frequency Distributions									
Loading Range											
0 - 50	n	45	36	49	42	39	54	43	38	37	7
	%	69	74	71	61	83	78	90	55	56	28
50 - 100	n	15	9	15	19	4	11	2	16	19	11
	%	23	18	22	28	9	16	4	23	29	44
100 - 150	n	0	0	0	3	1	0	3	6	6	4
	%	0	0	0	4	2	0	6	9	9	16
Over 150	n	5	4	5	5	3	4	0	9	4	3
	%	8	8	7	7	6	6	0	13	6	12

Table 5-7
Summary of Air Filter Metals Data ($\mu g/m^3$)
1987 and 1989 Event Monitoring

1987 Event Monitoring	Monitor Number									
Analyte: Arsenic	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Minimum	0.004	0.005	0.004	0.004	0.002	0.003	0.005	0.004	0.003	0.003
Average	0.008	0.022	0.020	0.028	0.021	0.017	0.039	0.052	0.065	0.087
Maximum	0.014	0.176	0.089	0.103	0.095	0.131	0.415	0.287	0.382	0.625
Analyte: Cadmium										
Minimum	0.001	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.001	0.001
Average	0.002	0.005	0.012	0.008	0.010	0.007	0.015	0.018	0.032	0.039
Maximum	0.002	0.028	0.062	0.033	0.086	0.058	0.151	0.110	0.155	0.237
Analyte: Copper										
Minimum	0.074	0.074	0.056	0.038	0.089	0.017	0.061	0.052	0.044	0.034
Average	0.204	0.169	0.165	0.109	0.144	0.066	0.130	0.145	0.203	0.184
Maximum	0.437	0.233	0.489	0.217	0.259	0.172	0.364	0.490	0.616	0.761
Analyte: Lead										
Minimum	0.041	0.061	0.090	0.047	0.044	0.030	0.033	0.040	0.039	0.031
Average	0.224	0.703	0.997	1.067	1.059	0.382	0.656	1.214	1.799	2.400
Maximum	1.713	3.914	8.591	4.955	4.394	2.874	6.263	7.825	10.007	15.460

1989 Event Monitoring	Monitor Number									
Analyte: Arsenic	**1**	**2**	**4**	**5**	**5a (PM_{10})**	**7**	**7a (PM_{10})**	**8**	**9**	**10**
Minimum	0.004	0.004	0.004	0.004	0.003	0.004	0.003	0.004	0.008	0.012
Average	0.008	0.007	0.010	0.009	0.006	0.010	0.008	0.031	0.022	0.022
Maximum	0.027	0.010	0.032	0.019	0.017	0.028	0.021	0.098	0.059	0.060
Analyte: Cadmium										
Minimum	0.003	0.005	0.003	0.003	0.003	0.003	0.004	0.005	0.005	0.004
Average	0.006	0.006	0.007	0.006	0.005	0.005	0.006	0.015	0.018	0.024
Maximum	0.021	0.010	0.023	0.014	0.008	0.008	0.009	0.053	0.062	0.094
Analyte: Copper										
Minimum	0.064	0.019	0.076	0.048	0.011	0.096	0.019	0.038	0.057	0.092
Average	0.133	0.119	0.132	0.073	0.045	0.354	0.053	0.121	0.176	0.134
Maximum	0.293	0.185	0.257	0.107	0.117	0.712	0.083	0.217	0.317	0.227
Analyte: Lead										
Minimum	0.058	0.053	0.120	0.078	0.045	0.054	0.027	0.139	0.242	0.180
Average	0.091	0.103	0.607	0.542	0.193	0.202	0.124	1.544	1.033	1.179
Maximum	0.189	0.296	3.553	1.611	0.690	0.517	0.437	4.157	2.879	4.013

Table 5-8
Geometric Mean and Extreme House Dust Metal Concentrations
1974, 1975, 1983, and 1988 Lead Health Survey
(ppm)

		As	Cd	Cu	Hg	Pb	Sb	Zn
1974								
Smelterville	Mean (95%ile)	8.0 (28.5)	113.0 (503.0)	*	17.8 (109.0)	10,583 (30,394)	185.0 (409.0)	5,432 (17,154)
Kellogg/Wardner/ Page	Mean (95%ile)	5.7 (40.3)	65.5 (227.0)	*	7.3 (66.6)	6,581 (23,017)	174.0 (844.0)	3,940 (9,575)
Pinehurst	Mean (95%ile)	3.3 (15.9)	29.5 (73.5)	*	3.5 (11.9)	2,006 (5,453)	120.0 (312.0)	2,695 (6,515)
1975								
Smelterville	Mean (95%ile)	*	42.0 (159.0)	*	*	3,533 (21,807)	*	*
Kellogg/Wardner/ Page	Mean (95%ile)	*	44.7 (122.0)	*	*	4,573 (13,521)	*	*
Pinehurst	Mean (95%ile)	*	25.0 (81.5)	*	*	1,749 (6,694)	*	*
1983								
Smelterville	Mean (95%ile)	*	63.3 (125.5)	*	*	3,715 (7,754)	*	2,695 (5,070)
Kellogg/Wardner/ Page	Mean (95%ile)	*	37.6 (93.0)	*	*	2,366 (7,840)	*	2,443 (10,373)
Pinehurst	Mean (95%ile)	*	24.6 (68.3)	*	*	1,155 (3,255)	*	1,578 (3,301)
1988								
Smelterville	Mean (95%ile)	25.7 (80.0)	15.4 (52.0)	177.0 (1,073.0)	1.3 (7.8)	1,203 (4,615)	18.9 (64.0)	1,394 (4,309)
Kellogg/Wardner/ Page	Mean (95%ile)	26.3 (115.0)	15.6 (47.0)	167.0 (963.0)	1.3 (4.6)	1,450 (8,643)	27.9 (147.0)	1,401 (5,143)
Pinehurst	Mean (95%ile)	*	*	*	*	*	*	*

NOTE:

*Data not available. Exposure estimates will employ concentration from most recent measurements. Source: IDHW 1974, 1975, 1983, and 1989.

dry deposition. The maximum dry deposition rate observed was 12,595 $\mu g/m^2/hr$ at the Mine Timber site during the second week of September 1988. Only four metals were observed to have dry deposition rates consistently exceeding 1.0 $\mu g/m^2/hr$. Those were iron, lead, manganese, and zinc with annual average deposition rates at the Mine Timber site of 132, 12.7, 8.6, and 11.3 $\mu g/m^2/hr$, respectively. The maximum weekly lead deposition rate observed was 83.8 $\mu g/m^2/hr$ at the Mine Timber site, also occurring during the second week of September.

The highest deposition rates were observed during the weeks that also included the severe dust event days with Total Suspended Particulates (TSP) >150 $\mu g/m^3$ shown in Table 5-9. The 1988 data confirm that both total solids and contaminant particulate deposition seem to be event-related in a manner similar to the TSP and ambient air metals concentration discussed in the last section. At both sites, more than 25 percent of the total annual solids deposition occurred in four individual weeks in 1988. Those included 1 week in each of May, August, September, and October. The same weeks accounted for 31 percent of total lead, 18 percent of total cadmium, and 29 percent of total arsenic deposition. The 1988 seasonal data also showed a frequency and magnitude of severe dust events (TSP >300 $\mu g/m^3$) similar to that observed in 1987, but absent in 1989.

These results suggest that deposition, similar to TSP, is event-related with the bulk of deposited solids and metals coming as a result of high wind speeds impacting barren dust sources in the vicinity of the monitors.

Water erosion of hillsides near the smelter complex is a migration pathway to residential soil, particularly in yards abutting hill slopes. Mass loading rates are high along these steep barren locations where sheet and rill erosion with gullying are significant. Metals contents on the hillsides average 5,000 ppm lead.

Lead leachability from residential soils was determined by Extraction Procedure (EP) Toxicity and Toxicity Characteristic Leaching Procedure (TCLP) analyses. These tests are used to determine if a material should be considered a hazardous waste pursuant to the Resource Conservation and Recovery Act (RCRA) and, consequently, subject to RCRA storage and disposal requirements. Results showed 3 out of 23 EP Toxicity samples exceeded the RCRA lead threshold level of 5 ppm. Two of the six TCLP samples exceeded the threshold level for lead.

Table 5-9
Individual Filters With TSP >150 $\mu g/m^3$
November 1987 to November 1988

Sample Date	TSP ($\mu g/m^3$)	Cd ($\mu g/m^3$)	Cd (ppm)	Pb ($\mu g/m^3$)	Pb (ppm)
Smelterville Mine Timber					
09-06-88	795.1	0.012	15	3.9	4948
09-03-88	508.4	0.033	65	5.8	1413
08-29-88	357.6	0.006	17	1.9	5180
08-20-88	307.9	0.013	43	3.5	11352
08-25-88	305.3	0.007	24	2.6	8545
09-07-88	253.4	0.006	24	1.5	5985
05-12-88	227.3	0.011	49	1.5	6517
09-09-88	225.6	0.006	28	1.8	7844
07-27-88	214.3	0.005	25	1.5	6943
02-22-88	209.5	0.007	35	0.7	3560
02-24-88	197.9	0.007	34	0.6	3033
02-23-88	190.8	0.007	39	0.7	3826
10-21-88	189.4	0.003	16	0.2	1282
10-03-88	189.2	0.011	59	1.7	9118
04-13-88	185.2	0.017	90	1.6	8894
04-14-88	181.8	0.014	78	1.6	8534
02-25-88	175.2	0.007	41	0.6	3382
07-11-88	170.6	0.001	5	0.2	1210
08-30-88	170.1	0.002	13	1.0	5687
08-01-88	160.9	0.003	18	1.2	7394
09-16-88	160.1	0.004	24	0.4	2654
02-26-88	159.4	0.006	37	0.5	3339
09-15-88	158.9	0.003	21	0.8	5139
10-15-88	158.3	0.000	3	0.0	181
Kellogg Middle School Sites					
09-06-88	594.4	0.068	114	1.5	2568
09-06-88	585.6	0.063	107	1.5	2509
08-29-88	227.6	0.005	21	0.2	852
10-21-88	219.0	0.010	44	0.6	2721
08-19-88	208.8	0.001	5	0.1	380
10-21-88	205.3	0.006	30	0.5	2475
05-12-88	165.0	0.007	42	0.3	1816
09-07-88	154.7	0.011	72	0.3	2008
05-12-88	153.1	0.005	35	0.3	1892
07-11-88	152.6	0.000	3	0.0	215
10-15-88	150.8	0.000	2	0.0	88

6 SUMMARY OF SITE RISKS

6.1 HUMAN HEALTH RISKS

The RADER presents a detailed discussion of the risk assessment for the Populated Areas. In the RADER, both carcinogenic and noncarcinogenic effects of contaminant exposures are evaluated. A Non-populated Areas risk assessment is being conducted in concert with the Non-populated Areas RI/FS.

6.1.1 EXPOSURE ASSESSMENT

The contaminants used in the exposure evaluation and risk assessment are all metals that exhibit: 1) elevated concentrations in residential soils and dusts relative to background concentrations; 2) decreasing concentrations in environmental media with increasing distance from the industrial complex; and 3) potential for human toxicity following incidental and chronic exposures. Contaminants of concern include **antimony, arsenic, cadmium, copper, lead, mercury, and zinc.**

Receptor populations at risk are identified as the current and past residents of the Populated Areas of the site. Three groups have been evaluated in terms of contaminant exposures and consequent risks. These are:

1. A general population of residents that are assumed to live, since birth, under the conditions represented by the contamination levels found since 1983 for a 70-year lifetime (referred to as the current scenario which would also be a future scenario under the No Action Alternative)

2. A general population of residents who were born in 1971 and were 2 years old during the period of maximum exposure onsite and who remain onsite under current conditions for a 70-year lifetime (referred to as the historical scenario)

3. A sensitive subpopulation of children exposed to lead

Historical exposures, since 1971, were evaluated because of documented high contaminant concentrations during 1973-1975. Airborne lead concentrations were approximately 100 times greater during this period than current levels. Consideration of these exposures is critical for evaluating the potential chronic risks of metal contaminants on the population.

Both the current and historical populations (numbers 1 and 2 above) are representative of baseline conditions--those conditions under which no remedial action has been undertaken (the No Action Alternative).

The **principal exposure media** and **associated receptor pathways** characterized for the evaluation of **baseline** human health risk for the typical resident in the Populated Areas of the Bunker Hill site are:

- Ingestion of residential surficial yard soils
- Ingestion of house dusts
- Inhalation of air particulate matter
- Consumption of national market basket variety produce (foodstuffs available on supermarket shelves representing food of average consumers) and water ingestion from

public water supplies (public water is supplied from a surface water source outside site boundaries)

Additional exposures that could be experienced by members of the population who engage in potentially high-risk activities are evaluated as **incremental** exposures. The following incremental exposures were evaluated:

- Consumption of contaminated local groundwater
- Ingestion of other soil/dust at extreme (95th percentile concentration) residential soil and house dust concentrations
- Ingestion of extreme amounts (1 gm/day) of soil and dust during childhood (typical of "pica-type" behavior)
- Consumption of local fish from the Coeur d'Alene area
- Consumption of local vegetable garden produce
- Inhalation of outdoor air particulate matter during episodic, high wind events

To determine an individual's level of risk resulting from participation in potentially high-risk activities, the appropriate **incremental risk(s)** were **added to the baseline** estimate. If an individual does not engage in any of the incremental activities evaluated, then the risk to that individual would be the baseline estimate. The incremental exposure analysis can be used to determine the Reasonable Maximum Exposure scenario for the Populated Areas.

Exposures and consequent risks were evaluated for each of the two baseline periods (current and historical) in three separate areas (Smelterville, Kellogg/Wardner/Page, and Pinehurst) for the average or typical population. The risk assessment was completed assuming current land uses would continue to be residential.

Lifetime or **chronic** exposures were evaluated for the typical resident by estimating contaminant intakes using average media concentrations (see Table 6-1). For this evaluation, arithmetic mean concentrations for exposure media were used to represent average or typical long-term exposure levels. For residential soil and house dust exposures, geometric mean concentrations were calculated and used for evaluating typical long-term exposures. Geometric mean values for these media are expected to be more representative of average exposures because of the statistical distributions exhibited by soil and house dust metal concentrations.

Chronic exposures at extreme levels are not expected for the typical resident. Therefore, chronic exposures to extreme concentrations of site contaminants are not evaluated in the baseline chronic assessment. Extreme media concentrations represented as 95th percentile levels were evaluated as **incremental** and **subchronic** exposures.

The traditional approach for risk characterization associated with lead exposure is currently inappropriate because an acceptable Reference Dose (RfD) for lead is not available. Therefore, risk characterization for subchronic lead exposure was accomplished by using observed childhood population blood lead levels and environmental media lead concentrations collected over the last 17 years in an integrated uptake/biokinetic dose-response model. The model was used to relate childhood blood lead levels to contaminated media exposures. Model inputs and criteria were selected and validated using site-specific data as described in the RADER.

Table 6-1 presents a summary of contaminants of concern, exposure routes and sources, and scenarios addressed in the exposure evaluation and risk assessment.

Table 6-1
Contaminants Evaluated, Exposure Routes and Sources, and Exposure Scenarios Addressed in the Risk Assessment

Contaminants Evaluated
Antimony Arsenic Cadmium Copper Lead Mercury Zinc
Exposure Routes and Sources
Chronic Baseline: Inhalation--Air/particulates Ingestion--Soil Ingestion--House dust Ingestion--Other soils and dusts Ingestion--Drinking Water (Municipal Water System) Ingestion--Market basket produce Incremental: Ingestion--Local fish (Lake Coeur d'Alene) Ingestion--Locally grown garden produce Ingestion--Drinking Water (onsite groundwater) Ingestion--Extreme soil/dust consumption rate, "Pica Behavior" (as a child) Ingestion--Other soils and dusts (maximum estimated exposure) Subchronic Dose-Response Modeling for Lead
Exposure Scenarios
Historical--Smelterville Current--Smelterville Historical--Kellogg/Page/Wardner Current--Kellogg/Page/Wardner Historical--Pinehurst Current--Pinehurst Background

6.1.2 TOXICITY ASSESSMENT

A detailed discussion of the toxicity of site contaminants is presented in Section 3.5 of the Protocol Document. Table 6-2 provides a summary of the most sensitive effects for each of the seven site contaminants of concern.

Table 6-2
Summary of Most Sensitive Adverse Health Effects of Site Contaminants of Concern

	Noncarcinogenic Effects		Carcinogenic Effects[a]	
Chemical	**Oral**	**Inhalation**	**Oral**	**Inhalation**
Antimony	Gastrointestinal irritation	Irregular respiration	Inconclusive (Group D)	Inconclusive (Group D)
Arsenic	Skin lesions, neuropathy, gastrointestinal irritation	Irritation of mucous membranes	Skin cancer (Group A)	Lung cancer (Group A)
Cadmium	Kidney damage	Kidney damage	No evidence of carcinogenicity	Lung cancer (Group B1)
Copper	Gastrointestinal irritation	Metal fume fever; pulmonary fibrosis	Not classified (Group D)	Not classified (Group D)
Lead	Impaired neurobehavioral development; hypertension	Impaired neurobehavioral development; hypertension	Kidney tumor (high dose only, Group B2)	Same as for oral effects
Mercury	Kidney damage, neuropathy	Lung damage	Not classified (Group D)	Not classified (Group D)
Zinc	Hypochromic microcytic anemia	Pulmonary fibrosis	No evidence of carcinogenicity	No evidence of carcinogenicity

[a]U.S. EPA Carcinogen group classification--refers to the strength of the evidence that a substance causes cancer.
Group A, Human carcinogen
Group B, Probable human carcinogen
Group C, Possible human carcinogen
Group D, Not classifiable
Group E, Evidence of noncarcinogenicity

Tables 6-3 and 6-4 summarize the available Cancer Potency Factors (CPFs) and Reference Doses (RfDs) for the site contaminants of concern. These values were obtained from the Health Effects Summary Tables and Integrated Risk Information System.

Table 6-3
Available CPFs for Site Contaminants of Concern
$(mg/kg\text{-}day)^{-1}$

	Oral Exposure	Inhalation Exposure
Arsenic	1.5	50*
Cadmium	-	6.1

*Inhalation slope factor is in terms of absorbed dose. Absorption/deposition of inhaled arsenic is estimated to be 30 percent.

6.1.3 RISK CHARACTERIZATION

6.1.3.1 Carcinogenic Risk

Excess lifetime cancer risks are determined by multiplying the intake level with the cancer potency factor. These risks are probabilities that are generally expressed in scientific notation (e.g., $1x10^{-6}$). An excess lifetime cancer risk of 1×10^{-6} means that if a population of 1 million people were exposed to the baseline condition over a 70-year lifetime, it is expected that there would be one additional cancer above

the cancer events due to other causes. The current U.S. cancer rate is one in four. Therefore, in a population of 1 million people, 250,000 cancer events are predicted. Under a 10^{-6} risk scenario, 250,001 cancer events would be predicted.

Table 6-4
Noncarcinogenic Effects and Associated RfDs for Site Contaminants of Concern

Chemical	Exposure Route	Pathology	RfD (mg/kg-day)
Antimony	Oral	GI Irritation	4×10^{-4}
Arsenic	Oral	Skin Lesions	1×10^{-3}
Cadmium	Oral	Renal Dysfunction Food Water	 1×10^{-3} 5×10^{-4}
Copper	Oral	GI Irritation	1.3 mg/L
Lead	Inhalation and Oral	Various, including Renal Dysfunction, Anemia and Neurobehavioral Deficiencies	Unavailable
Mercury	Oral	Renal Dysfunction	3×10^{-4}
Zinc	Oral	Anemia	0.20

Chemicals with common effects include:
Cadmium, lead, and mercury for renal toxicity.
Lead and zinc for anemia.
Antimony and copper for production of gastrointestinal (GI) irritation.

Results of the chronic exposure and risk characterization indicate that excess (above background) carcinogenic risk is associated with baseline exposures and consequent intakes for arsenic and cadmium in air. Total baseline (70-year lifetime) risk to lung cancer, due to inhalation of arsenic and cadmium under current site conditions, is from 2 to 32 times greater than for offsite background. Under the historical scenario, risk to lung cancer was two to six times greater than the current scenario for the same communities. Baseline cancer risk estimates indicate that the typical population exceeds U.S. EPA's acceptable range for cancer risk (10^{-4} to 10^{-6}).

Acceptable levels of risk to lung cancer may never be attained at any future arsenic and cadmium air levels for those individuals who have had considerable historical and cumulative exposures. Tumor registry data support the presence of a disease-causing agent for the increased occurrence of respiratory cancers in the area.

Baseline carcinogenic risk due to site exposures is approximately 30 percent greater than background carcinogenic risk (9.8×10^{-4}). Baseline carcinogenic risk in conjunction with the consumption of site groundwater in Smelterville and Kellogg due to arsenic intakes could result in a doubling of the risk associated with background exposures. Excess health risk due to arsenic in groundwater makes this source unsuitable for drinking in many areas of the site. Groundwater is not currently used as a municipal drinking water source.

Table 6-5 presents a summary of the baseline and incremental carcinogenic risk estimates.

Table 6-5
Summary of Baseline and Incremental Carcinogenic Risk Estimates*

Scenario	Location	Contaminant	Baseline	Local Fish	Local Garden Vegetables	Drinking/ Groundwater	Extreme Soil/Dust Ingestion	Other Soil/Dust	Total, All Intakes
Historical	Smelterville	Arsenic	$1.3x10^{-3}$			$6.7x10^{-4}$	$3.3x10^{-5}$	$5.1x10^{-5}$	$2.1x10^{-3}$
		Cadmium	$1.4x10^{-4}$						
		Total	$1.4x10^{-3}$			$6.7x10^{-4}$	$3.3x10^{-5}$	$5.1x10^{-5}$	$2.1x10^{-3}$
	Kellogg/ Wardner/Page	Arsenic	$1.5x10^{-3}$			$1.9x10^{-4}$	$9.5x10^{-5}$	$3.3x10^{-5}$	$1.8x10^{-3}$
		Cadmium	$1.1x10^{-4}$						
		Total	$1.6x10^{-3}$			$1.9x10^{-4}$	$9.5x10^{-5}$	$3.3x10^{-5}$	$1.8x10^{-3}$
	Pinehurst	Arsenic	$1.2x10^{-3}$				$6.4x10^{-5}$	$3.1x10^{-5}$	$1.3x10^{-3}$
		Cadmium	$6.8x10^{-5}$						
		Total	$1.3x10^{-3}$				$6.4x10^{-5}$	$3.1x10^{-5}$	$1.3x10^{-3}$
Current	Smelterville	Arsenic	$1.1x10^{-3}$			$6.7x10^{-4}$	$2.2x10^{-4}$	$3.1x10^{-5}$	$2.0x10^{-3}$
		Cadmium	$5.8x10^{-5}$						
		Total	$1.2x10^{-3}$			$6.7x10^{-4}$	$2.2x10^{-4}$	$3.1x10^{-5}$	$2.0x10^{-3}$
	Kellogg/ Wardner/Page	Arsenic	$1.1x10^{-3}$			$1.9x10^{-4}$	$1.8x10^{-4}$	$2.4x10^{-5}$	$1.5x10^{-3}$
		Cadmium	$1.8x10^{-5}$						
		Total	$1.1x10^{-3}$			$1.9x10^{-4}$	$1.8x10^{-4}$	$2.4x10^{-5}$	$1.5x10^{-3}$
	Pinehurst	Arsenic	$9.8x10^{-4}$				$6.4x10^{-5}$	$3.1x10^{-5}$	$1.1x10^{-3}$
		Cadmium	$1.4x10^{-5}$						
		Total	$9.8x10^{-4}$				$6.4x10^{-5}$	$3.1x10^{-5}$	$1.1x10^{-3}$

* Contaminants and media for which risk is not estimated is due to lack of either an appropriate CPF and/or media concentrations from which intakes can be estimated. CPFs are available only for arsenic (oral and inhalation) and cadmium (inhalation only).

6.1.3.2 Noncarcinogenic Risk

Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ). By adding the HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, the Hazard Index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminants exposures within a single medium or across media. Excess risk is determined to be where the HI is greater than or equal to 1.0.

All estimated **baseline noncarcinogenic** risks for specific toxic endpoints and target organs resulting from oral intakes of site contaminants of concern have been determined to be acceptable (HI <1).

Potential activities that could result in unacceptable risk to noncarcinogenic disease are associated with metal intakes resulting from consumption of site groundwater, excessive soil and dust ingestion by children, and consumption of local garden produce.

Table 6-6 presents the summary of excess risks evaluated in the noncarcinogenic risk assessment.

Table 6-6
Summary of Exposure Routes, Scenarios, and Potentially High-Risk Activities That Could Result in Unacceptable Chronic Risk to Noncarcinogenic Disease

Exposure Scenario	Baseline HI	HI of Baseline Plus
Skin lesions due to arsenic exposures:		
Historical, Smelterville	0.82	Groundwater consumption, HI ≥ 1.3
Current, Smelterville	0.69	Groundwater consumption, HI ≥ 1.1
Anemia due to zinc (and lead[a]) exposures:		
Historical, Smelterville	0.43	Groundwater consumption, HI ≥ 2.1
Historical, Kellogg/Wardner/Page	0.43	Groundwater consumption, HI ≥ 1.5
Current, Smelterville	0.43	Groundwater consumption, HI ≥ 2.1
Current, Kellogg/Wardner/Page	0.43	Groundwater consumption, HI ≥ 1.5
Gastrointestinal irritation due to antimony and copper exposures:		
Historical, Smelterville	0.70	"Pica-type" behavior, HI = 2.3
Historical, Kellogg/Wardner/Page	0.67	"Pica-type" behavior, HI = 2.0
Historical, Pinehurst[b]	0.86	"Pica-type" behavior, HI = 1.8
Renal dysfunction due to cadmium and mercury (and lead[a]) exposures:		
Historical and Current for both Smelterville and Kellogg/Wardner/Page	.75-.81	Local garden produce, HI ≥1.3 to 1.4
Historical and Current for both Smelterville and Kellogg/Wardner/Page	.75-.81	Groundwater consumption, HI ≥3.5 to 19
Historical and Current, Smelterville	.78-.81	"Pica-type" behavior, HI ≥1.1 to 1.3
Historical, Kellogg/Wardner/Page	.75	"Pica-type" behavior, HI ≥1.0

NOTE:

"Pica-type" behavior is associated with extreme soil and dust ingestion rates exhibited by some children of ages 2 through 6 years.

[a]While an RfD is not available for lead, extreme lead exposures can contribute, among other pathologies, to anemia and renal disease.

[b]Antimony in Pinehurst house dusts is represented by 1974 monitoring results and may be in excess of actual current concentrations.

6.1.3.3 Subchronic Exposure

The most recent lead health survey of area children indicates that current blood lead levels for many children exceed levels at which adverse health effects are associated. In 1990, 2 of 362 children had blood lead levels exceeding 25 μg/dl. Fifty percent (50%) of the children within an approximate 2-mile radius of the industrial complex had blood lead levels exceeding 10 μg/dl. Thirty percent (30%) of the children within the 2- to 3-mile radius of the industrial complex had blood lead levels exceeding 10 μg/dl.

CDC's 1985 Health Advisory for Blood Lead Levels states that "a blood lead level in children of 25 μg/dl or above indicates excessive lead absorption and constitutes grounds for medical intervention." Recent information indicates that adverse health effects are associated with blood lead levels at 10 to 15 μg/dl, or possibly lower. CDC is expected to establish 10 μg/dl as the level above which action should be taken. In addition, ATSDR is supportive of the goal of reducing childhood blood lead levels to below 10 μg/dl.

A review of past exposures and health survey data at the Bunker Hill site indicates that during extreme exposures in the early to mid-1970s, up to 80 percent of the children exhibited blood lead levels that are associated with adverse neurobehavioral development that persists into young adulthood. Additional concern for past lead exposures (prior to smelter closure in 1981) is due to the potential release of lead from normal bone resorption during pregnancy and lactation and the resultant pre- and post-natal exposures to children who are born today of mothers who were exposed as children in the 1970s.

Subchronic exposures and consequent intakes could increase health risks in the short term to levels well above those estimated for baseline chronic risks. Ingestion of extreme amounts of soil and dust during childhood (ages 2 to 6 years), characterized as "pica-type" behavior, could yield up to 10 times greater metal intakes than for the typical child. These extreme intakes due to soil/dust ingestion could amount to approximately 2 mg Pb/day, resulting in dangerous blood lead increases in young children. "Pica-type" behavior could present extreme risk to this highly susceptible sub-group of the population, and requires control if observed.

Consumption of local garden produce can yield extreme intakes of cadmium, lead and zinc. Up to 220 times as much lead can be ingested from the consumption of local garden vegetables grown in Smelterville and Kellogg versus that associated with the consumption of national market basket variety produce. Children and pregnant women (as surrogates to the fetus) are most susceptible to the adverse effects associated with consequent lead intakes. Up to 62 times as much cadmium can be consumed in local garden produce versus market basket variety produce, thus presenting unacceptable chronic and subchronic risk to renal disease.

6.1.4 HUMAN HEALTH RISK SUMMARY

In summary, the conclusions of the RADER state that current site conditions present an environment where there are excessive risks associated with several different exposure pathways. These are:

- Carcinogenic risk associated with exposure to:
  - Arsenic via potential groundwater consumption
  - Arsenic and cadmium via inhalation
- Chronic noncarcinogenic risk associated with exposure to:
  - Arsenic, cadmium, and zinc via potential groundwater consumption

- Antimony, cadmium, mercury, and lead via excessive soil and dust ingestion (characterized by "pica-type" behavior)
- Cadmium and lead via local garden produce consumption

- Subchronic noncarcinogenic risk associated with exposure to:
  - Lead via ingestion of soil and dust
  - Cadmium, lead, and zinc via local garden produce consumption

Subchronic lead absorption among young children is the most significant health risk posed by this site. The major routes for lead absorption are:

- Ingestion of contaminated soils in residential yards and other residential environs
- Ingestion of contaminated house dusts that are resultant from tracking of residential soils and deposition of airborne particulate
- Inhalation and ingestion of airborne particulate matter derived from fugitive dust sources throughout the site

6.1.5 THE 1,000 PPM THRESHOLD CLEANUP LEVEL

A remedial action objective for this operable unit is to decrease the exposure to lead-contaminated residential soils such that 95 percent or more of the children in the area have blood lead levels below 10 μg/dl and that less than 1 percent have blood leads greater than 15 μg/dl. The 1,000 ppm lead cleanup threshold level selected for yard soil remediation at Bunker Hill is a site-specific and media-specific value chosen to meet these objectives. This level is not a target exposure concentration. Rather, it is the maximum soil lead level that any child may be exposed to in his or her home yard. This should not be construed to suggest that this level is health protective for soils at other sites, or other soil and dust media at the Bunker Hill site. A child living on an unremediated yard of 1,000 ppm is estimated to have a 0.1 to 2.5 percent (depending on various assumptions) chance of exceeding 15 μg/dl blood lead in the Bunker Hill post-remediation environment. The following are several reasons why this solution applies only for residential yard soils and only at this particular site:

Response Rate: The response rate value for this site was arrived at after extensive review of epidemiologic and environmental data collected at the site for more than 15 years. Analyses of those data suggest that the dose-response relationship between contaminated soils and dusts and resultant blood lead levels in children is about half that observed at other lead-contaminated sites. Whether the lesser response rate is due to reduced intake (lower soils and dust ingestion rates) or reduced uptakes (lesser absorption of ingested lead in soils) cannot be discerned from the data. The selection of the 1,000 ppm threshold level assumes the latter (i.e., reduced absorption rates at this site).

Total Lead Intake: Predicted blood lead levels resultant from remedial activities are based on total lead intake from all media. The four principal pathways are lead in diet, drinking water, air, and soils and dusts. The effectiveness of the 1,000 ppm threshold level for yard soils is dependent on several assumptions regarding reduced intakes along other pathways. Some of those assumptions are based on assessments of other remedial activities on the site and substantial reductions in dietary intake achieved from nationwide lead reduction initiatives. Those assumptions may not apply to other sites.

Composite Soil/Dust Lead Concentrations: Analyses presented in the RADER suggest that the composite concentrations of lead in all the soils and dusts ingested by children must be reduced to 700 to 1,200 ppm at this site to meet the remedial action objective of less than 5 percent of children having a blood lead of greater than 10 μg/dl. There are several contributing sources to this overall soil and dust loading. Those include yard soils, house dusts, road dusts, play area soils, fugitive dust sources, and other soils in the community where children may congregate. Residential yard soils are an important component of the overall soil and dust loading. A substantial portion of children's exposure results from direct contact in the yard. A substantial portion of house dust loading results from yard soils transported into the home and additional children's exposure results from visits to yards other than their own home. Yard soils may also be a source of contaminated dusts circulating through the community via air, water, and mechanical pathways. Removing all yard soils greater than 1,000 ppm will have positive effects along all these pathways and routes of exposure. However, achieving the remedial action objectives will require additional activities among the soil and dust sources other than yard soils. Those actions are specific to this site and may not be applicable to other locales.

Distribution of Yard Soil Lead Concentration: The effectiveness of the cleanup strategy in meeting remedial action objectives depends on the post-remediation distribution of contaminant levels. That distribution will be site-specific and, likely, inapplicable to other locations. The imposition of the 1,000 ppm cleanup threshold at the Bunker Hill site will result in remediation of more than 75 percent of the yards in most residential areas. The mean yard soil lead concentrations in area communities will be reduced from nearly 3,000 ppm to less than 200 to 300 ppm. This represents a tremendous reduction in total environmental lead loading in the community and should have positive effects in other media as well. Substantial benefit will result in the form of reduced exposure from several sources.

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

6.2 ENVIRONMENTAL RISKS

This Record of Decision addresses the remediation of residential soils within the Populated Areas of the Bunker Hill Superfund Site. There are no critical habitats or endangered species or habitats affected by residential soils contamination or anticipated effects caused by future remediation. An ecological risk assessment is being conducted as part of the Non-populated Areas RI/FS.

The urban component of the ecosystem at Bunker Hill has been impacted by historical mining and smelting activities. The average heavy metal concentrations in residential soils and community road shoulders are higher than on the hillsides portion of the site. Many of the residential soils have metal concentrations capable of inducing toxicological effects on soil micro-organisms, invertebrates, and plants. Comparative concentrations in various other soil types have resulted in reduced productivity, yields, decomposition, and nutrient cycling rates. Other animals that inhabit the urban areas such as field mice and squirrels, as well as cats and dogs, are susceptible to ingestion of residential soils with an increased risk of chemical stress.

Management of soil and vegetation at Bunker Hill can facilitate natural and favorable conditions within the urban ecosystem by reducing the mobility of contaminants and their potential for inducing chemical stress. The replacement of residential soils and vegetation is expected to enhance the micro-habitat niches for the flora and fauna that use them.

7 DETAILED DESCRIPTION OF ALTERNATIVES

This proposed cleanup action involves residential yards, an area that is typically used for many different activities and purposes. While it is important that the cleanup action block the routes by which people come in contact with contaminants in the soil, it is also important that the cleanup action allow residents to use their yards for their many purposes. For example, while a concrete or asphalt layer would block the pathway between the contamination and residents, it would make it impossible for residents to use their yards for typical activities, such as planting and gardening. Therefore, except for the No Action Alternative, all of the alternatives are designed to reduce human exposure to contamination, while maintaining the integrity of the individual yards.

7.1 ALTERNATIVE 1--NO ACTION

The No Action Alternative provides a baseline for comparing against other alternatives. The site would be left in its current condition. Existing institutional controls, such as the Health Intervention Program, would be discontinued. Because no remedial activities would be implemented with the No Action Alternative, long-term human health and environmental risks from residential soils at the site would be essentially the same as those identified in the RADER:

- Significant health risks to young children associated with exposure to ingestion of contaminated soil, ingestion of contaminated house dusts, and inhalation and ingestion of airborne particulate matter would maintain currently unacceptable health conditions and could result in dangerous blood lead increases in young children.
- Excessive soil and dust ingestion by "pica-type" children could result in toxic effects due to antimony, cadmium, and lead.
- Consumption of local produce can increase intakes of cadmium, lead, and zinc, resulting in neurological and renal disease.

Unacceptable high blood lead concentrations in some children would probably continue and the potential for increases in blood lead concentrations could increase because of the termination of the health intervention program.

Environmental monitoring would be conducted under the No Action Alternative. The purpose of the monitoring would be to detect changes in environmental conditions over time. Environmental monitoring would occur for the following media:

Media	Parameters
Air	Suspended particulates, Pb and As concentrations
Residential Soils	Contaminant metals concentrations

Sampling locations would be consistent with previous sample collection sites to provide a basis for historic comparisons. In addition to monitoring environmental media, it is expected that childrens' blood would continue to be screened for lead.

7.2 COMMON COMPONENTS OF ALTERNATIVES 3--VARIABLE CUT/REMOVE/FILL/DISPOSAL; 5--SOD REMOVAL/SOD REPLACEMENT/DISPOSAL; 6--DEEP REMOVAL/FILL/DISPOSAL; AND 8--VARIABLE CUT/REMOVE/FILL/TREAT/DISPOSAL

All of the remaining alternatives have components in common (use of institutional controls, revegetation, dust suppression, excavation/backfill, extent of remediation, disposal, and monitoring). Although the description of these components is not repeated in the discussions for each alternative, differences in their planned implementation are identified where appropriate. ARARs for all alternatives are similar and are discussed in Section 10. Each of these common components is discussed below.

7.2.1 INSTITUTIONAL CONTROLS

Institutional controls would be implemented to a certain degree with each alternative. The reliance on institutional controls is dependent on the remedial action technologies employed and their long-term effectiveness in protecting human health and the environment. The detailed evaluation of the proposed institutional controls are included in the document entitled *An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site*, which is part of the Residential Soils Administrative Record.

The range of institutional controls consists of the following components:

- Deed notices
- Public education
- Excavation regulations and permits
- Health intervention program
- Contaminated soil collection system
- Clean soil supply system
- Post-cleanup administration and evaluation
- Sod maintenance ordinances
- Lawn maintenance contracting

7.2.2 REVEGETATION

Revegetation of residential yards is a component of each alternative. The lawn areas of remediated yards would generally be revegetated with sod. Steep hillsides and other remediated areas not currently planted with lawns (such as vacant lots) would be stabilized and hydroseeded with native grasses. Native grasses require less maintenance and are more tolerant of the local climatic conditions. If preferred by a property owner, hydroseeding with native grasses could be substituted for the sod. To the extent practicable, all yard landscaping would be returned to its original condition.

7.2.3 DUST SUPPRESSION DURING REMEDIATION

Dust suppression measures would be implemented throughout the remediation process to reduce exposure of workers and residents to airborne contaminants. Dust suppression would include:

- Watering of residential yard areas prior to excavation activities
- Continued watering during excavation, as necessary
- Placement of tarps or covers over excavated materials

- Use of tarps or covers over truck beds to reduce blowing dust and spillage during transportation to the waste repository

- Daily cleanup of all spilled or tracked soils from sidewalks, roadways, etc.

Appropriate air monitoring would be conducted to identify the occurrence of contaminant migration during remedial activities. Any exceedances of the standards would result in immediate implementation of additional dust suppression measures or a shutdown of construction activities.

7.2.4 EXCAVATION/BACKFILL/COVER

For all alternatives, remediation of residential yards would be completed by either covering with a layer of uncontaminated soil or by removing and replacing contaminated soil or sod with uncontaminated materials.

A range of alternatives was developed to provide decisionmakers with several options. Alternative 5 is an option with minimal soil removal and replacement. A 12-inch removal and replacement is presented in Alternative 3. A 6-inch soil barrier was considered during the development of Alternative 3. However, it was concluded that a 6-inch depth is insufficient to provide a viable option as a barrier technology in a residential area, if the underlying material is contaminated. This is because a 6-inch barrier could be penetrated by such common occurrences as a digging dog, a homeowner planting bulbs, or children's play activities. To complete the range of alternatives, Alternative 6 was developed to evaluate deep removal of contaminated materials.

7.2.5 EXTENT OF REMEDIATION

For all of the alternatives, the areal extent of remediation would be consistent. For each residential yard, the exact nature of the remediation (e.g., how much sod to replace, which bushes to remove, etc.) would have to be considered on a case-by-case basis. However, for consistency, the following areas would generally be remediated within each yard:

- Sod areas
- Roadway shoulders (if curb and gutter is not present) to the extension of the lot lines
- Alleys (if unpaved) to the extension of the lot lines
- Planters and other landscaped areas
- Garden areas
- Unpaved driveways
- Garages with dirt floors
- Storage areas

In short, remediation would occur in any area within and adjacent to the residential yard where children could play and could potentially come in contact with contaminated soils. Areas that currently provide a barrier from the underlying soils (such as paved sidewalks and driveways) would not require remediation.

7.2.6 DISPOSAL

The proposed site for disposal of contaminated residential soils for all alternatives is the Page Ponds tailings impoundment. Page Ponds is an old tailings impoundment that is currently the site of the South Fork Coeur d'Alene Sewer District treatment facility. On either side of the sewage lagoons are "benches" that are primarily tailings, denuded of vegetation, and consequently are a source of windblown dust to the valley. The benches (east and west dikes) is the area recommended for the residential soils repository. Consolidation of residential soil and sod onto the Page benches will contribute to reducing fugitive windblown dust throughout the valley.

Since the volume of material requiring disposal will vary with the selected alternative, the volume of soil wastes may exceed the capacity of the Page benches. In that case, an additional disposal site will need to be used to supplement the disposal capacity of Page Ponds since the approximate capacity of Page Ponds is 860,000 cubic yards.

The disposal site will have an impermeable cap or cover (i.e., one that is designed to minimize migration of contaminants) placed during closure. The long-term management of the area will include maintenance of the cover and groundwater monitoring. In addition, access restrictions and land use restrictions and/or notices will be used to ensure that future use of the property is not incompatible with a residential soils repository.

7.2.7 ENVIRONMENTAL MONITORING

Regardless of the alternative selected, contaminated materials will remain within the residential areas of the site. Alternative 6, which requires deep excavation to remove materials, will most likely not remove all contaminated material. Therefore, environmental monitoring will be continued at the site for an indefinite period. It is estimated that environmental monitoring of fugitive dust and residential soil and litter would continue. Monitoring will occur at previous sampling locations to provide a basis for historical comparisons. It is expected that blood lead levels would also be monitored. For cost estimating purposes, it is assumed that a greater extent and frequency of sampling will be required in Alternative 5 than the other alternatives, since it would place only a sod layer barrier between the contaminants and the residents.

7.3 ALTERNATIVE 3--VARIABLE CUT/REMOVE/FILL/DISPOSAL

Alternative 3 consists of the following options:

- A 2-inch gravel barrier and 10-inch cover without soil excavation
- A 2-inch gravel barrier installation, and a 10-inch soil replacement after excavation and removal of up to 12 inches of soil (yards would be above grade for excavations less than 12 inches)

Both options are similar in that each incorporates a combination of a visual barrier and a separate soil cover. They differ in where they can be applied to a residential yard because of drainage and homeowner considerations. Whatever the excavation depth, this alternative will result in the placement of a minimum of 12 inches of clean material.

The option of a gravel/soil cover barrier without additional soil excavation is preferred because it minimizes the volume of contaminated soil requiring disposal. A 2-inch clean gravel layer with a 10-inch soil cover would be selected for implementation at residences in which the foundation is high enough in relation to existing grade to allow its use, where permission is granted by the respective property owner, and at residences where drainage is not a problem.

The cover would consist of 2 inches of clean gravel overlain by 10 inches of clean topsoil from an offsite borrow source. The gravel layer would provide a visual and physical barrier indicating to the landowner that the bottom of the remediated soils had been reached, isolating the underlying contaminants from inadvertent exposure. Also, the gravel layer would act to some degree as a capillary barrier to the subsurface migration of metals. Clean fill would be revegetated by sodding. To the extent practicable, the yard landscaping would be returned to its original condition.

A 24-inch layer of topsoil would be placed in established garden areas since some plant roots and tubers extend below 12 inches, but generally less than 24 inches. Future activities that penetrate the 12-inch cover, such as utility line installation, planting of larger trees and shrubs, and basement or foundation excavation, would be controlled through ordinances regulating excavation, as detailed under Section 7.2.1, Institutional Controls.

For those residences in which a simple gravel barrier/soil covering cannot be implemented, contaminated soils would be excavated and replaced with a clean gravel/topsoil barrier. Various depths of excavation and fill would be necessary based on site conditions:

- Excavate 12 inches; replace with 2 inches of gravel and 10 inches of soil.
- Excavate less than 12 inches; replace with 2 inches of gravel and 10 inches of soil (finished grade would be above existing grades).
- Excavate 24 inches, replace with 2 inches of gravel and 22 inches of soil (for established garden areas).

The choice of excavating to less than 12 inches is dependent upon the yard grade in relation to the house floor grade and depth of contamination. Under most circumstances, building codes do not allow yard grades to be higher than house floor grades. The next step to implementing this alternative would be to excavate soils to the selected depth below the ground surface. All sod or other surface coverings, except for pavements, would be removed and disposed of along with the soil. Large trees (4-inch diameter and larger) and shrubs (taller than 3 feet) would be saved, if possible. Trees and shrubs left in place would be trimmed back and contaminated soil would be removed by hand from around the roots. The "clean" soil used to replace the excavated soil would meet borrow source and landscaping specifications. Backfilled areas that were previously lawn areas would generally be revegetated with sod. In some backfilled areas it may be more appropriate to revegetate using hydroseeding with native grasses (steep hillsides, vacant lots, etc.) To the extent practicable, however, the yard landscaping would be returned to its original condition.

The volume of material to be disposed is estimated to be 640,000 cubic yards.

Regardless of the option employed under Alternative 3, environmental monitoring of fugitive dust, residential soils, house dusts, and periodic blood lead analyses of residents would be continued. Monitoring would occur at previous sampling locations to provide a basis for historical comparison.

7.4 ALTERNATIVE 5--SOD REMOVAL/SOD REPLACEMENT/DISPOSAL

Alternative 5 consists of contaminated sod removal and replacement.

Residential yards would be cleared and grubbed, which includes removal of sod, brush, and stumps. Alternative 5 would not include any removal of contaminated soils or replacement with clean soils in grassed areas. The clean sod would be placed over the top of contaminated soils. To the extent practicable, the yard landscaping would be returned to its original condition.

All areas not to be covered with new sod would be remediated using excavate/replace/dispose techniques. Areas such as planters and graveled areas would be excavated to 6 inches. Garden areas would be excavated to 24 inches and backfilled with clean soil, similar to Alternative 3. Contaminated materials would be disposed of in the Page Ponds Repository. The estimated volume for disposal would be

203,500 cubic yards. Clean fill from an offsite borrow source would be used to replace the excavated materials.

Future activities that penetrate the clean sod layer, such as utility line installation, planting of trees and shrubs, and basement or foundation excavation, would be controlled through ordinances regulating excavation, as detailed under Section 7.2.1, Institutional Controls. Additional institutional controls would have to be implemented with Alternative 5 to maintain the long-term viability of the sod layer. These controls would include ordinances requiring homeowners to water and maintain the replacement sod to an acceptable level. Additional inspection would be required by the various government entities to ensure that the sod maintenance ordinances were effectively enforced. A professional lawn maintenance company would be retained to advise and assist the homeowners with proper sod maintenance. The lawn maintenance company would also provide and apply the necessary fertilizers and chemicals to ensure the health and vigor of the sod barrier. Environmental monitoring after remediation would be continued.

7.5 ALTERNATIVE 6--DEEP REMOVAL/FILL/DISPOSAL

Alternative 6 includes removal of contaminated soil to a depth of 7 feet and replacement with clean material. Although this is a deep removal, there may be contaminants left in place in some areas.

The institutional controls requirement with this alternative would be considerably reduced. Since contaminated residential soils would be removed to a depth of 7 feet, future institutional controls for residential yards would be minimized. The public information and health intervention programs would be required, but at a reduced level. Environmental monitoring would be continued.

For residential yards, all contaminated soils would be excavated and replaced with clean soil. The depth of excavation would be determined on a site-by-site basis. The excavation would extend to a depth at which the threshold level was reached or to approximately 7 feet.

Prior to excavation activities, the depth and concentration of lead contamination would be determined in areas to be remediated. Selection of sampling strategy and depth of soil removal would be a function of the remedial design/remedial action process.

Once excavation and fill depths are selected, the next step to implement this alternative would be to excavate soils to the selected depth below the ground surface. All sod or other surface coverings would be removed and disposed of along with the soil. The need to remove and replace pavements and sidewalks would be determined on a case-by-case basis. All trees and shrubs would be removed. The soil used to replace the excavated soil would consist of clean soil from an offsite borrow source. Backfilled areas would be revegetated. To the extent practicable, the yard landscaping would be returned to its original condition.

Soil, sod, and other materials that are removed would be disposed at an appropriate disposal site. It is estimated that Alternative 6 would generate 4.45 million cubic yards of wastes. Preliminary estimates indicate that approximately 860,000 cubic yards of wastes could be disposed of at the Page Ponds Repository. This means that approximately 3.6 million cubic yards of wastes would have to be disposed of at another site, if Alternative 6 is implemented.

Special care would have to be taken when excavating near foundations, basements, and utilities to avoid damage to existing structures and facilities. Temporary shoring and supports may be required. It may be advantageous to remove and replace utility lines, rather than shore and support them during construction.

Because of the inconvenience to the residents and potential liabilities associated with this alternative, the residents would be temporarily relocated during construction. The relocation would be to local motels or hotels and would be expected to last 2 to 3 weeks for an average residential yard remediation.

7.6 ALTERNATIVE 8--VARIABLE CUT/REMOVE/FILL/TREAT/DISPOSAL

Alternative 8 is identical to Alternative 3 except that the excavated soil would be treated with pozzolanic agents prior to disposal.

In Alternative 8, excavated soils would be mixed with pozzolanic agents in a pug mill prior to disposal. The addition of pozzolanic agents will tend to solidify contaminated soils and may reduce contaminant mobility. If this alternative is chosen, treatability studies would be conducted to determine if these soils are amenable to pozzolanic fixation, and if pozzolanic fixation will adequately reduce contaminant mobility. Environmental monitoring would be continued at predetermined intervals. The volume of material to be disposed would increase approximately 50 percent from 640,000 cubic yards to 960,000 cubic yards as a result of pozzolanic treatment.

8 COMPARATIVE ANALYSIS OF ALTERNATIVES

A comparative analysis of alternatives using each of the nine evaluation criteria, as required by federal regulation, is presented in this section. The purpose of this analysis is to identify the advantages and disadvantages of each alternative relative to the other alternatives. A separate evaluation of the alternatives is presented under the heading of each criterion.

8.1 PROTECTION OF HUMAN HEALTH AND ENVIRONMENT

Protection of human health and the environment is addressed to varying degrees by the five proposed alternatives. Alternative 1 is the No Action Alternative. As proposed, it would have no effect on the site; therefore, it does not address any of the identified concerns. Indeed, an increase in blood lead concentrations over time could occur.

Alternative 3, 6, and 8 provide protection of human health through installation of a soil and sod barrier between residents and underlying contaminated materials. All three address the concerns of exposure through direct contact with soil contaminants or tracking contaminated residential soil into homes as a source of house dust. Alternative 5 addresses these concerns, but to a lesser extent than the others because of the requirement for rigorous maintenance. All alternatives address the exposure pathway of local garden produce.

None of the alternatives would alter the toxicity or persistence of the soil contaminants. Alternative 8 does include a treatment plan for excavated soils that would solidify the soils once they are removed from the site and may reduce mobility.

In general, permanence of remedial actions is greatest for Alternative 6 with its essentially complete removal of contaminated soils. Alternatives 3 and 8 provide a degree of permanence through removal of surficial layers of contaminants, requiring less implementation time and effort, but they rely on a greater need for institutional controls. Alternative 5 provides the least amount of protection on a permanent level because of its reliance on institutional controls and the susceptibility of the sod layer to withstand normal human activities and inconsistencies in maintenance.

8.2 COMPLIANCE WITH APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

With the exception of Alternative 1, the No Action Alternative, all alternatives meet federal and State of Idaho ARARs. A further discussion of compliance with federal and state ARARs is included in Chapter 10.

8.3 LONG-TERM EFFECTIVENESS

The residual risk (the risk remaining after implementation) increases from lowest to highest in the following order of alternatives: 6, 3 and 8, 5, and 1 (No Action Alternative). Alternative 6 would result in the least amount of residual risk because of the volume of contaminated soils that would be removed to ensure that future exposure to onsite residential soil sources does not occur. Although Alternatives 3 and 8 do not reduce residual risk to the same level as Alternative 6, they would protect the communities in the long term if institutional control measures were implemented and followed. Alternative 5 provides the least long-term protection since the sod barrier may be easily breached.

Maintenance requirements for all alternatives would be fairly similar. Each alternative incorporates a sod or grass cover and similar institutional controls. However, the level of the requirement varies with the alternative. Alternative 5 is more sensitive to maintenance requirements because a layer of sod is the only barrier between residents and the underlying contaminated soils. Alternatives 3 and 8 follow with a layer of clean fill of at least 12 inches under the sod layer. Alternative 6 requires the least amount of maintenance as a result of the extensive layer of fill (up to 7 feet) needed to return residential yards to their original grade.

Environmental monitoring would vary according to the degree of protectiveness incorporated within the remedial alternatives. Alternative 5 would require the greatest amount of monitoring to ensure that the sod barrier remains effective. This would entail frequent soil and litter metals analyses and blood lead analyses. Alternatives 3 and 8 would require periodic monitoring of the surficial soil layer to check for airborne recontamination and periodic monitoring of the remediated soil profile to check for disruption and recontamination of the soil barrier. Alternatives 3 and 8 would also require periodic blood lead analyses. Alternative 6 would require periodic monitoring of the surficial soil layer and periodic blood lead analyses. Alternative 1 would include environmental monitoring to check for changes in contaminant levels with time. Blood lead screening would be discontinued when warranted.

The disposal recommendation for residential soil is consistent for all alternatives except for Alternative 8, which includes the addition of pozzolanic agents prior to disposal. The long-term effectiveness of the disposal recommendation is ensured through appropriate closure requirements and management by institutional controls.

8.4 REDUCTION OF TOXICITY, MOBILITY, VOLUME, AND PERSISTENCE THROUGH TREATMENT

Each alternative, with the exception of the No Action Alternative, requires varying degrees of contaminated soil removal and placement of a "clean" fill cover to create a barrier between underlying soil contaminants and the residential population. Alternative 8 is the only alternative to incorporate treatment as part of the remedial action. This treatment would solidify the excavated soil and would likely reduce the metals mobility from soils at the disposal area. The additional decrease in mobility by pozzolanic treatment is not known.

All alternatives would increase volume of soil remaining within the Superfund boundaries through bulking (10 to 15 percent of the in-place volume). The volume would increase by approximately 50 percent as a result of the pozzolanic treatment in Alternative 8 as compared to Alternative 3. None of the alternatives proposes to change the toxicity or persistence of the contaminants.

8.5 SHORT-TERM EFFECTIVENESS

Most of the remedial actions are similar in the technologies proposed for implementation. The extent of the remedial action varies considerably among alternatives. Alternatives 3, 5, and 8 are generally equivalent in the amount of short-term risk they pose to the community. Each requires the removal of the top vegetative layer and varying amounts of underlying soil. Each alternative would include continuing to prioritize residential yards on the basis of sensitive subpopulations. Completion of these alternatives would require 4 to 6 years. Alternative 6 would require considerably more time to complete because of its soil removal requirements. Exposure to fugitive dust generated by the remedial activities is the common risk shared by each alternative. Localized releases of metals-laden dust would likely occur during excavation, but such releases would be minimized by dust control techniques. However, none of the action alternatives is expected to substantially affect the communities during remediation.

Alternative 6 would create a slightly higher risk to workers and residents than the other alternatives, mainly because of the volumes of materials to be excavated and moved and the duration of time needed to accomplish Alternative 6. The greater excavation volume would be associated with increased noise and greater annoyance of residents from more construction activity. Heavy equipment traffic would also increase on local roads with implementation of Alternative 6.

Construction contractors would need protection against dermal and respiratory exposure to the dust while working in contaminated areas. Protective clothing and respirators or dust masks would help control this risk. These risks are inherent to all alternatives.

8.6 IMPLEMENTABILITY, RELIABILITY, AND CONSTRUCTIBILITY

In general, there is not a great difference among alternatives in the types of remedial activities proposed. The extent or degree to which the remediation is applied does vary significantly between alternatives. Most of the activities proposed as part of the alternatives including disposal are well-developed technologies. All of these activities are technically feasible, but the level of effort associated with each is different.

Alternative 5 is the most easily implemented alternative proposed, requiring only the removal and replacement of a sod and grass layer. However, Alternative 5 was judged to be the least reliable because of lack of durability and difficulty in implementing and enforcing the extensive associated institutional controls requirements. Alternative 6, however, is the most difficult to construct, requiring removal of up to 7 feet of soil around each residence, and resulting in potential complications associated with exposed structure footings, utility lines, and pipes. Because of this, Alternative 6 has the greatest potential to impact the community through construction delays resulting from complications. Alternatives 3 and 8 are implementable, reliable, and constructible and require slightly more complex activities than Alternative 5, involving the removal of up to 12 inches of soil and the vegetation layer with subsequent replacement of at least 12 inches of "clean" soil and a new sod layer.

8.7 COST

The cost comparisons are straightforward. Comparing present worth costs, Alternative 6 is the most expensive and Alternative 5 is the least expensive of the action alternatives. The costs of the action alternatives, including present worth, are listed in Table 8-1.

Table 8-1 Summary of Estimated Costs			
Alternative	**Capital Cost**	**Annual Operations & Maintenance Cost**	**Present Worth Cost**
Alternative 3 12-inch removal/ replacement	$ 34,200,000	$460,000	$ 41,300,000
Alternative 5 Sod layer removal/ replacement	14,400,000	792,000	28,600,000
Alternative 6 Deep excavation/ replacement	189,000,000	257,000	193,000,000
Alternative 8 12-inch removal/ replacement and pozzolanic treatment	48,900,000	460,000	56,000,000

8.8 STATE ACCEPTANCE

This decision document presents the remedial action selected by the U.S. EPA and IDHW for the Populated Areas Residential Soils Operable Unit at the Bunker Hill Mining and Metallurgical Complex Site in northern Idaho.

8.9 COMMUNITY ACCEPTANCE

U.S. EPA and IDHW solicited input from the community on the cleanup methods proposed for residential soils. Public comments, in general, indicated support for the recommendation of Alternative 3 in the proposed plan and urged an expeditious implementation of the plan. Public comments are specifically addressed in the Responsiveness Summary section of this document and some have been incorporated into the selected remedy.

9 THE SELECTED REMEDY

9.1 INTRODUCTION

IDHW and U.S. EPA have selected Alternative 3 (as modified by public comments) as the remedy for contaminated residential soils at the Bunker Hill site. This selection is based on the Administrative Record for the site. This remedy addresses surficial residential soils only in currently established residential areas. Because of the extent of contamination, both areal and at-depth, this remedy does not focus on complete removal of contamination from residential yards, but focuses on creating a barrier between contaminants and residents. The remedy employs both engineering and institutional controls to create and maintain the barrier.

9.2 RESIDENTIAL SOILS REMEDY

This remedy is made up of the following components:

SOIL SAMPLING

Approximately 60 percent of residential properties have been sampled at the 0- to 1-inch interval. Prior to commencement of remedial action on a specific yard, sampling will be required at the 0- to 1-, 1- to 6-, 6- to 12-, and 12- to 18-inch intervals. The sampling will be conducted in accordance with established sampling procedures for this site including analysis of soil passing an 80-mesh screen for determination of the 1,000 ppm threshold level.

REMOVAL/REPLACEMENT OF SOILS

The removal of contaminated soil and sod and consequent replacement with compacted clean material will be conducted as follows:

> If the 0- to 1-inch **or** 1- to 6-inch-depth intervals exceed the threshold level, 6 inches of contaminated material will be excavated and replaced. In addition, if the 6- to 12-inch interval exceeds the threshold level, another 6 inches (total of 12 inches) will be removed and replaced. If the 6- to 12-inch interval does not exceed the threshold level, the property will have a 6-inch excavation and replacement.
>
> In the case where the 6- to 12-inch-depth interval exceeds the threshold level but the 0- to 1-inch and 1- to 6-inch intervals do not, 12 inches of material will be excavated and replaced.
>
> If the 0- to 1-inch **and** the 1- to 6-inch **and** the 6- to 12-inch intervals do not exceed the threshold level, the property will not be remediated.

All produce garden areas in every yard will receive 24 inches of clean material. Clean soil for produce gardens will be made available to residents whose yards do not require remediation.

If existing property grades permit, it is possible that no excavation of residential soils would be necessary and the cover material could be placed and revegetated without exceeding the height of the foundation. However, it is more likely that some cut and removal of existing soil will be required to properly accommodate the clean cover and new sod.

For each residential yard, the exact nature of the remediation (i.e., how much sod to replace, which bushes to remove, etc.) would have to be considered on a case-by-case basis. However, for consistency, the following areas would generally be remediated within each yard:

- Sod areas
- Roadway shoulders (if curb and gutter are not present) to asphalt or pavement and to the lateral extension of property lines
- Alleys (if unpaved) to the extension of the lot lines
- Landscaped areas
- Garden areas
- Unpaved driveways
- Garages with dirt floors
- Storage areas

Areas immediately associated with the residential properties (i.e., road shoulders and alleys) will not require top soil, but will require replacement will clean material in kind or a permanent cover. Any steep hillside areas located immediately adjacent to yards and with a soil lead concentration greater than the threshold level will be stabilized as part of this action to prevent runoff and recontamination. The final remedy for the hillsides will be addressed in a subsequent ROD.

Based on dose response modeling, a threshold level of 1,000 ppm lead in residential soil was determined to be the threshold cleanup level most appropriate for this site. The results of the threshold assessment, and the assumptions used, are summarized in Table 9-1.

Requirements for removal and replacement of soils on areas adjacent to residential lots, such as vacant residential lots, within the Populated Areas will be the same as for occupied properties.

VISUAL MARKER

For residential yards that require excavation to 12 inches, if the results of sampling in the 12- to 18-inch interval exceed the threshold level, a visual marker (such as erosion control fabric or other suitable material) will be placed prior to backfilling with clean fill.

REVEGETATION

During the excavation process, all existing sod and soil coverings will be removed and disposed of along with the soil. Larger trees and shrubs will be left in place but subject to pruning. After spreading, compaction, and grading, clean fill will be revegetated. The lawn areas of remediated yards will generally be revegetated with sod. Steep hillsides and other remediated areas not currently planted with lawns (such as vacant lots) will be stabilized and hydroseeded with native grasses. If preferred by a property owner, hydroseeding with native grasses could be substituted for the sod. Vacant lots will be hydroseeded with native grasses after remediation. To the extent practicable, all yard landscaping will be returned to its original condition.

Table 9-1
Risk Range for a Threshold Level of 1,000 ppm

1,000 ppm Threshold Scenarios		No. of Homes Remediated	Post Remediation Predicted Mean				% of Children Predicted to Exceed		
			Yard Soil	House Dust	Blood Lead Level µg/dl				
			Pb Conc ppm	Pb Conc ppm	1-3 yrs	1-10 yrs	10 µg/dl	15 µg/dl	25 µg/dl
Kellogg	1	958	121	1,450	7.5	7.0	15-24	2-7.8	<1-1.0
	2	958	121	121	2.8	2.7	<1-1.6	<1	<1
	3	958	121	143	2.9	2.8	<1-1.6	<1	<1
Smelterville	1	238	122	1,203	6.6	6.1	9-18	1.3-5.1	<1
	2	238	122	122	2.8	2.7	<1-1.6	<1	<1
	3	238	122	145	2.9	2.8	<1-1.6	<1	<1
Wardner	1	90	174	1,450	7.4	6.9	16-25	1.9-8.0	<1-1.0
	2	90	174	174	3.4	3.2	1.5-3.8	<1	<1
	3	90	174	255	3.6	3.4	1.5-4	<1	<1
Page	1	24	278	1,330	7.4	6.9	16-25	1.9-8.0	<1-1.0
	2	24	278	278	3.9	3.8	1.8-5.5	<1-1.3	<1
	3	24	278	440	4.2	4.0	1.8-6.0	<1-1.4	<1
Pinehurst	1	143	275	747	5.1	4.8	2.5-9.0	<1-2.0	<1
	2	143	275	275	3.8	2.6	1.5-4.7	<1-1.0	<1
	3	143	275	356	4.0	3.8	1.5-5.0	<1-1.0	<1

Notes: This remedial scenario assumes replacement of all yards with soil lead concentration exceeding 1,000 ppm cleanup threshold. The total number of homes is estimated to be 1,453. Three alternate scenarios assuming a 1,000 ppm threshold cleanup level were evaluated under the following assumptions:

Threshold Scenario

1. Yard Soil Concentration--All yards with levels of >1,000 ppm lead replaced with soils of 100 ppm Pb.
   House Dust Concentration--As observed in 1988.
   Indoor:Outdoor Partition--70%:30%.
2. Yard Soil Concentration--All yards with levels of >1,000 ppm lead replaced with soils of 100 ppm Pb.
   House Dust Concentration--Equal to soil concentration on individual home basis.
   Indoor:Outdoor Partition--70%:30%.
3. Yard Soil Concentration--All yards with levels of 1,000 ppm lead replaced with soils of 100 ppm Pb.
   House Dust Concentration--Equal to community mean yard soil level at remediated homes, equal to yard soil at nonremediated homes.
   Indoor:Outdoor Partition--70%:30%.

DUST SUPPRESSION

Dust suppression measures will be implemented throughout the remediation process to reduce exposure of workers and residents to airborne contaminants. Dust suppression will include, but not be limited to:

- Watering of residential yard areas prior to excavation activities
- Continued watering during excavation, as necessary
- Placement of tarps or covers over excavated materials
- Use of tarps or covers over truck beds to reduce blowing dust and spillage during transportation to the waste repository
- Daily cleanup of all spilled or tracked soils from sidewalks, roadways, etc.

DISPOSAL OF CONTAMINATED MATERIALS

The analysis of Applicable or Relevant and Appropriate Requirements associated with the disposal of contaminated residential soils assumed that the soils repository would be located within the Bunker Hill site. It is recommended that Page Ponds be used for the disposal repository because it has adequate volume, is within the Bunker Hill site, and the action will reduce the contaminated windblown dust originating from the Page Ponds area.

The use of Page Ponds as the repository will require that it be capped to minimize airborne contaminant migration and reduce the threat of direct contact exposure. The cap surface area will be compacted and graded to prevent ponding and minimize infiltration; it will also be vegetated for stabilization and moisture absorption. Access to the area will be restricted by fencing, locked gates, and warning signs. Future use of the repository will be limited and subject to institutional controls.

If Page Ponds is not used as the residential soil repository, the chosen repository site will be subject to agency evaluation and public notification.

INSTITUTIONAL CONTROLS

The goal of the institutional controls program is to develop a flexible system that builds on existing administrative structures and programs rather than create a new layer of bureaucracy. Institutional controls regulation will be uniform throughout the Bunker Hill site, irrespective of jurisdictional boundaries. The institutional controls associated with this ROD are designed for the maintenance of residential soil barriers only. These controls are necessary and are an integral part of the selected remedy.

Physical Program Requirements

Planning, Zoning, Subdivision and Building Permit Regulations: Implementation of planning, zoning, and subdivision controls through local ordinances, designed to protect and maintain barriers when development or any action that would breach a barrier takes place.

Disposal of Unearthed Contaminants: When a barrier is broken, contaminated soils that are removed must be handled to minimize exposure, collected for disposal, and transported to a proper disposal site. A means for disposal of incidental contaminated soils will be provided to residents.

Provision of Clean Soil: A program will be implemented to provide a centrally located supply of clean replacement soil (both fill and topsoil) to facilitate barrier repair, maintenance, and establishment of produce garden areas.

Administrative Program Requirements

Coordination of Public Institutions: Effective administration of a uniform Institutional Controls Program will require shared authority and resources. The four cities and Shoshone County will play an important role through already established permitting procedures. It has been recommended that the Panhandle Health District will administer the effort with permitting, inspection, records maintenance, and enactment of regulations, where necessary, across jurisdictional boundaries.

Deed Notices: These are a method to notify new owners of their barrier system and their responsibility for participation in that system.

Educational Programs: Educational programs will be developed to keep information about the barrier system in the public eye and to help the public recognize when disruption of the barrier systems requires attention or caution. Distribution of information should be provided through pamphleting, brochures, and general media exposure.

Permitting and Inspection Procedures: Permit issuance and recordkeeping procedures should be tailored to minimize inconvenience to permit applicants. A permit system that integrates with existing permit routines will be implemented.

Monitoring and Health Surveillance Programs: Monitoring will be required to assure both program performance and effectiveness. Health intervention efforts will be required to document and assess success in achieving remedial goals and objectives.

An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site outlines the various options associated with each of the institutional control requirements and will be used in the remedial design phase to guide implementation of the program. The implementation phase, referred to as Phase II, will include passing local ordinances, setting up an administrative system to oversee and run the program, and documentation of detailed procedures for each of the program components.

MONITORING

The effectiveness of the institutional controls program will be evaluated periodically. Appropriate air monitoring will be conducted to identify the occurrence of contaminant migration during remedial activities. Any exceedances of the standards will result in immediate implementation of additional dust suppression measures or a shutdown of construction activities.

Since contaminated material will be left onsite, both in Populated and Non-populated Areas, ongoing monitoring of fugitive dust and residential yards is necessary to ensure that the clean barrier is maintained.

9.3 CHANGES TO PROPOSED PLAN

During the public comment period, several issues were raised concerning the preferred alternative in the Proposed Plan; consequently, several minor modifications have been incorporated into the selected remedy in response to those concerns. The following is a list of those modifications:

- Depth of excavation may be variable (less than 12 inches) depending on depth of contamination.

- For those properties requiring a visual marker, it will be a material that can be easily seen during digging or excavation activities. The visual marker does not have to be a 2-inch gravel layer.

- Requirements for disposal site closure included an impermeable cap to protect groundwater. ARARs associated with groundwater and surface water protection will be addressed in a subsequent FS and ROD.

- The scope of the institutional controls program will be reevaluated periodically because the requirements of a program of this nature may change with time.

- Soil will be provided for homeowners who have a soil lead level less than 1,000 but who want a garden.

9.4 COST

Cost evaluations, including the assumptions used, are presented in the Feasibility Study. A summary of the capital costs associated with the selected alternative is shown in Table 9-2. The costs are order-of-magnitude (+50 percent to -30 percent) estimates. Capital costs are those required to initiate and construct the remedial action. Typical capital costs include construction equipment, labor and materials expenditures, engineering, and construction management. Bid and scope contingencies are also included in the total capital cost. Projected annual operation and maintenance costs for the selected remedy are also presented in Table 9-2. These costs are necessary to ensure the continued effectiveness of a remedial action. Included are such items as labor and materials; monitoring and the institutional controls program; and insurance, taxes, etc.

The feasibility level cost estimates shown have been prepared for guidance in project evaluation and implementation from the information available at the time of the estimate. The final costs of the project will depend on actual labor and material costs, actual site conditions, productivity, competitive market conditions, final project scope and schedule, and other variable factors. As a result, the final project costs will vary from the estimates presented here.

Present worth costs are calculated using a 5 percent discount rate and a 30-year estimated project life. The present worth cost for the selected remedy is $40.6 million (Table 9-2). Capital costs and long-term annual operations and maintenance (O&M) costs are included in the total present worth cost. Long-term O&M costs are those associated with maintaining an alternative after implementation is complete.

Costs presented in Table 9-2 are lower than those presented in the Residential Soil Feasibility Study or the Proposed Plan. The reduction in cost is associated with changes to the Proposed Plan as presented in Section 9.3. Specifically, removing the requirement for an impermeable cap accounts for the cost reduction.

9.5 PERFORMANCE REQUIREMENTS

A remedial action objective for this operable unit is to decrease the exposure to lead-contaminated residential soils such that 95 percent or more of the children in the area have blood lead levels below 10 μg/dl and that less than 1 percent have blood leads greater than 15 μg/dl. The former is projected to be achieved by reducing the overall soil and dust loading concentration to 700 to 1,200 ppm. The

Table 9-2
Summary of Estimated Costs for Selected Remedy

Item	Capital Cost ($)	Annual O&M Cost ($)
Occupied Lots Remediation Total	18,502,000	0
Vacant Lots Remediation Total	3,665,223	0
Disposal Cap	599,078	0
Operations and Maintenance	0	400,209
Health and Safety (10%)	2,276,630	0
Division 1 Costs (8%)	1,821,304	0
Engineering Services (10%)	2,276,630	0
Subtotal	29,140,865	400,209
15% Contingency	4,371,130	60,031
Total Capital Cost	33,500,000	460,000
Total O&M Present Worth	7,100,000	
Total Present Worth	40,600,000	

Notes:

1. Division 1 costs include the costs for general conditions, mobilization, permits, bond, and insurance.
2. The "Occupied Lots Remediation Total" is based on remediation of 1,273 residences.
3. The "Vacant Lots Remediation Total" is based on remediation of 268 vacant residential lots.
4. The present worth was calculated using a discount rate of 5% for 30 years, then rounded to three significant figures.
5. Institutional control costs include personnel, benefits, contractual services, supplies and materials, capital equipment, health intervention program, soil collection program, and material supply program required for annual maintenance of remedial actions.
6. The disposal cap was assumed to be a 1-foot soil cap.
7. Total costs were rounded to three significant figures.

1,000 ppm yard soil threshold cleanup level will reduce mean yard soil concentrations to approximately 200 to 300 ppm in residential areas. In combination with other remedial measures and the positive effects likely to be seen in other media, it is expected that this objective will be met. Achieving the latter objective of less than 1 percent of area children with blood lead concentrations below 15 µg/dl is less dependent on the mean soil/dust concentrations than on the soil concentration left in an unremediated yard. A child living on an unremediated yard of 1,000 ppm is estimated to have a 0.1 to 2.5 percent (depending on various assumptions) chance of exceeding 15 µg/dl blood lead in the Bunker Hill post-remediation environment. Any higher threshold cleanup level would result in unacceptable risk to that child. It is expected that this goal will be achieved by replacing all residential yards with a lead concentration greater than 1,000 ppm lead with clean material (less than 100 ppm). This expectation assumes that fugitive dust sources will be controlled and house dust concentrations will consequently decrease and that remediated yards will not be recontaminated.

This remedy mitigates the risks associated with the following pathways identified in the risk assessment:

- Inhalation/Ingestion of Contaminated Residential Soil
- Ingestion of Locally Grown Produce

This remedy does not directly address the risks associated with the following pathways identified in the risk assessment:

- Consumption of Contaminated Groundwater
- Inhalation/Ingestion of Windblown Dust
- Inhalation/Ingestion of Contaminated House Dust

Actions are being taken now to address these risks. The final remediation with respect to these risks will be addressed in a subsequent feasibility study.

10 STATUTORY DETERMINATIONS

The selected remedy for residential soils is protective of human health and the environment, will comply with federal and state requirements that are legally applicable or relevant and appropriate, and is cost-effective. The selected remedy does utilize alternative treatment and resource recovery technologies to the maximum extent practicable. However, since no treatment and resource recovery technologies were found to be practicable, none were incorporated into the remedy. Because this remedy will result in hazardous substances remaining onsite above health-based levels, the 5-year review provisions of CERCLA Section 121c will apply to this action. The following sections discuss how the selected remedy meets the statutory requirements.

10.1 PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

Lead absorption among young children is the most significant health risk posed by this site. Residential soils were identified in the RADER to be one of the primary contributors to risk associated with sub-chronic lead absorption. In order to reduce blood lead exposures, the selected remedy replaces metal-contaminated residential soils with uncontaminated soil, thereby breaking the exposure pathway between soils and children. Post-remediation modeling scenarios show that the soil cleanup level of 1,000 ppm will result in a sitewide mean blood lead level of 2.7 to 3.9 μg/dl. Only 1 to 3 percent of the children living onsite are predicted to have blood lead levels in excess of 15 μg/dl. It is expected that at least 95 percent will have a blood lead level less than 10 μg/dl.

Inclusion of produce garden area remediation to a depth of 24 inches will also reduce the exposure to cadmium, lead, and zinc associated with consumption of local garden produce.

The remedy selection will also effectively mitigate chronic noncarcinogenic risks associated with ingestion of antimony, cadmium, and mercury via soil ingestion. Carcinogenic risks associated with arsenic and cadmium exposure through fugitive dust will be addressed under a separate operable unit.

Contaminated residential soils will be consolidated in a permanent repository. All consolidation areas will be protected from erosion and surface infiltration by a revegetated topsoil cap and contouring. Experience with residential soil removal actions during 1989 and 1990 indicate that with appropriate precautions there will be no unacceptable short-term risks or cross-media impacts associated with the implementation of the selected remedy.

The institutional controls program will ensure the maintenance of physical and institutional barriers that protect against metal exposure. Continued blood lead and residential soils monitoring will measure the long-term success of the selected remedy.

House dust has also been identified as a significant lead exposure pathway. Residential soils are a contaminant source to house dust. Thus, remediating residential soils will reduce a contamination pathway to home interiors. Fugitive dust will need to be controlled and monitored concomitant with residential soil remediation to minimize soil recontamination. The RADER discusses the rate of soil recontamination from airborne fugitive dust and recommends that airborne dust be reduced substantially. Control of fugitive dust will also eliminate direct exposure to highly concentrated dusts, reduce accumulation of metals in homes, and prevent excessive deposition on homegrown produce in local gardens. Dust control measures have been taken on the site in the past 2 years. These measures include irrigation of the Central Impoundment Area (CIA), revegetation of some of the Bureau of Land Management (BLM) property on Smelterville Flats, placement of large rocks on barren areas north of the Kellogg Middle School, and spreading of sawdust on the Smelterville Flats area. Control of fugitive dust from barren hillsides is being addressed in the hillside revegetation order previously discussed. Additional dust

control measures will be implemented by the potentially responsible parties (PRPs) under the July 1991 Administrative Order on Consent (see Section 2.5).

The analysis presented in the RADER and the FS shows that the remedy selected for residential soils will break the significant exposure pathways associated with soil. Once residential soil removal is completed, waste soils will be consolidated within the area of contamination of the Bunker Hill site, and an institutional controls program is implemented, risks associated with metal-contaminated residential soils will be mitigated. Therefore, IDHW and U.S. EPA have concluded that the selected remedy for residential soils will be protective of public health and the environment.

10.2 COMPLIANCE WITH APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

Pursuant to SARA Section 121(d), remedial actions shall attain a degree of cleanup of hazardous substances, pollutants, and contaminants released into the environment and control of further release which, at a minimum, assures protection of human health and the environment. In addition, remedial actions shall, upon their completion, reach a level or standard of control for such hazardous substances, pollutants, or contaminants which at least attains legally applicable or relevant and appropriate federal standards, requirements, criteria, or limitations, or any promulgated standards, requirements, criteria, or limitations under a state environmental or facility siting law that is more stringent than any federal standard (ARARs). All ARARs would be met by the selected remedy.

The federal and state ARARs identified by U.S. EPA and IDHW, respectively, for residential soil removal are presented in Tables 10-1 through 10-6. An evaluation of chemical, location, and action-specific ARARs is presented in Section 2 of the Residential Soils Focused Feasibility Study. Additional discussion of chemical-specific ARARs and other requirements to be considered (TBCs) is presented in Section 3 of the RADER.

There are currently no promulgated laws or standards for lead in soil. However, a site-specific threshold level of 1,000 ppm lead in residential soil, that is expected to result in a community average of 200 to 300 ppm, has been developed for protection of human health.

For the Bunker Hill residential soils action, contaminated residential soil will be consolidated from yards throughout the site into a single location. Since some residential soils did demonstrate RCRA hazardous characteristics for lead and pesticides (chlordane), an analysis of the applicability or relevance and appropriateness of the RCRA hazardous waste regulations is required:

> For RCRA to be applicable, the material must demonstrate hazardous characteristics, and the proposed action must involve either treatment, storage, or disposal of the material as defined by RCRA. As the Remedial Investigation sampling and analysis has shown, residential properties and all other areas within the Bunker Hill Superfund Site are contaminated to various degrees with lead and other heavy metals. Contamination is contiguous throughout the site and the site is considered a single "area of contamination" (AOC). As described in the preamble to the final NCP, movement of wastes and soil within an AOC at a Superfund site does not constitute disposal or "placement" and therefore does not trigger RCRA, Subtitle C, disposal requirements. For this action, all soil consolidation and movement will be within a single AOC; thus, the RCRA requirements are not applicable.
>
> For RCRA to be relevant and appropriate, the RCRA requirements must address problems or situations that are similar to the action being taken and the requirements must be well suited to the site. U.S. EPA has determined that portions of the RCRA closure requirements are relevant and appropriate for this action.

Table 10-1 (Page 1 of 2)
Federal Chemical-Specific ARARs

Chemical-Specific	Citation	Prerequisite	Requirement
I. Air			
A. Applicable Requirement			
1. Clean Air Act National Ambient Air Quality Standards (NAAQS)	42 U.S.C. Section 7401 et seq; 40 CFR Part 50	Establishes ambient air quality standards for emissions of chemicals and particulate matter.	Emissions of particulates and chemicals which occur during remedial activities will meet the applicable NAAQS which are as follows. Particulate Matter: 150 $\mu g/m^3$ 24-hour average concentration, 50 $\mu g/m^3$ annual arithmetic mean. Lead: 1.5 μg Pb/m^3 (.5 μg Pb/m^3 is proposed)
B. Relevant and Appropriate Requirement	None		
C. To Be Considered Materials	None		
II. Soil and Dust			
A. Applicable Requirements	None		
B. Relevant and Appropriate Requirement	None		
C. To Be Considered Materials			
1. Risk Assessment Data Evaluation Report (RADER) for the Populated Areas of the Bunker Hill Superfund Site	Technical Enforcement Contract Work Assignment C10002 Prepared by: Jacobs Engineering Group, Inc. and TerraGraphics, Inc.	Evaluates baseline health risk due to current site exposures and establishes contaminant levels in environmental media at the site for the protection of public health.	The ARARs for soils may not provide adequate protection to human health; therefore a risk assessment approach using these guidances should be used in determining cleanup levels.
2. Soil/Dust Lead Contamination Advisory	Centers for Disease Control's statement on childhood blood lead levels, 1985.	Removal of contaminated soils.	Lead in soil/dust appears to be responsible for blood lead levels in children increasing above background levels when the concentrations in the soil/dust exceed 500-1,000 ppm. This concentration is based upon the established CDC blood lead level of 25 μg Pb/dl in children. When soil/dust lead concentrations exceed 500-1,000 ppm, blood lead levels in children are found to exceed 25 μg Pb/dl.

Table 10-1 (Page 2 of 2)
Federal Chemical-Specific ARARs

Chemical-Specific	Citation	Prerequisite	Requirement
3. EPA Interim Guidance Concerning Soil Lead Cleanup Levels at Superfund Sites	Office of Solid Waste and Emergency Response (OSWER) Directive #9355.4-02, September 1989.	Establishes an interim soil cleanup level for total lead in residential settings.	This guidance adopts the recom-mendation contained in the 1985 CDC statement on childhood lead poisoning (an interim soil cleanup level for residential settings of 500-1,000 ppm total lead), and is to be followed when the current or predicted land use of contaminated areas is residential.
4. EPA Strategy for Reducing Lead Exposures	Environmental Protection Agency October 3, 1990	Presents a strategy to reduce lead exposure, particularly to young children.	The strategy was developed to reduce lead exposures to the greatest extent possible. Goals of the strategy are to: 1) significantly reduce blood lead incidence above 10 μg Pb/dl in children; and 2) reduce the amount of lead introduced into the environment.

Table 10-2 (Page 1 of 2)
Federal Location-Specific ARARs

Location-Specific	Citation	Prerequisite	Requirement
I. Federal			
A. Applicable Requirement			
1. Historic project owned or controlled by a Federal Agency	National Historic Preservation Act; 16 U.S.C. 470 et seq.; 40 CFR 6.301(b); 36 CFR Part 800.	Property within the residential areas of the site is included in or eligible for the National Register of Historic Places.	The remedial action will be designed to minimize the effect on historic properties and historic landmarks.
2. Site within an area where action may cause irreparable harm, loss, or destruction of artifacts.	Archeological and Historic Preservation Act; 16 U.S.C. 469; 40 CFR 6.301(c).	Property within the residential area of the site contains historical and archeological data.	The remedial action will be designed to minimize the effect on historical and archeological data.
3. Site located in area of critical habitat upon which endangered or threatened species depend.	Endangered Species Act of 1973; 16 U.S.C. 1531-1543; 50 CFR Parts 17, 401; 40 CFR 6.302(h).	Determination of presence of endangered or threatened species.	The remedial action will be designed to conserve endangered or threatened species and their habitat, including consultation with the Department of Interior if such areas are affected.
4. Site located within a floodplain.	Protection of Floodplains, Executive Order 11988; 40 CFR 6, Appendix A.	Remedial action will take place within a 100-year floodplain.	The remedial action will be designed to avoid adversely impacting the floodplain wherever possible to ensure that the action's planning and budget reflects consideration of the flood hazards and floodplain management.
5. Wetlands located in and around the site.	Protection of Wetlands; Executive Order 11990; 40 CFR 6, Appendix A.	Remedial actions may affect wetlands.	The remedial action will be designed to avoid adversely impacting wetlands wherever possible, including minimizing wetlands destruction and preserving wetland values.

Table 10-2 (Page 2 of 2)
Federal Location-Specific ARARs

Location-Specific	Citation	Prerequisite	Requirement
6. Waters in and around the site.	Clean Water Act (Section 404)-- Dredge or Fill Requirements; 33 U.S.C. 1251-1376; 40 CFR 230, 231.	Capping, dike stabilization, construction of berms and levees, and disposal of contaminated soil, waste material or dredged material are examples of activities that may involve a discharge of dredged or fill material.	The four conditions that must be satisfied before dredge and fill is an allowable alternative are: - There must be no practical alternative. - Discharge of dredged or fill material must not cause a violation of State water quality standards, violate any applicable toxic effluent standards, jeopardize threatened or endangered species, or injure a marine sanctuary. - No discharge shall be permitted that will cause or contribute to significant degradation of the water. - Appropriate steps to minimize adverse effects must be taken. Determine long- and short-term effects on physical, chemical, and biological components of the aquatic ecosystem.
7. Area containing fish and wildlife habitat.	Fish and Wildlife Conservation Act of 1980; 16 U.S.C. 2901; 50 CFR Part 83.	Activity affecting wildlife and non-game fish.	Remedial action will conserve and promote conservation of non-game fish and wildlife and their habitats.
8. 100-year floodplain.	Location Standard for Hazardous Waste Facilities - RCRA; 42 U.S.C. 6901; 40 CFR 264.18(b).	RCRA hazardous waste treatment storage and disposal.	Facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any 100-year floodplain.
B. Relevant and Appropriate Requirement	None		
C. To Be Considered	None		

Table 10-3 (Page 1 of 4)
Federal Action-Specific ARARs

Action-Specific	Citation	Prerequisite	Requirement
A. Applicable Requirement			
1. Disposal of Solid Waste	RCRA 42 U.S.C. §6901 et seq.; 40 CFR 257	Maintenance of a facility at which solid wastes are disposed of.	- Facility or practices in floodplains will not restrict flow of basic flood, reduce the temporary water storage capacity of the floodplain or otherwise result in a wash-out of solid waste. - Facility or practices shall not cause or contribute to taking of any endangered or threatened species. - Facility or practices shall not result in the destruction or abuse of critical habitat. - Facility or practice shall not cause discharge of pollutants into waters of the U.S. in violation of a NPDES permit. - Facility or practices shall not cause discharge of dredged or fill material into waters of the U.S.. - Facility or practices shall not contaminate underground drinking source beyond facilities boundary. - The concentration of explosive gases generated at the facility shall not exceed: (1) 25% of the lower explosive limit for the gases in facility structures; (2) the lower explosive limit for the gases at the boundary.
1. Disposal of Solid Waste (Continued)			- Facility or practice shall not pose a hazard to the safety of persons or property from fire. - Facility or practices shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards.

Table 10-3 (Page 2 of 4)
Federal Action-Specific ARARs

Action-Specific	Citation	Prerequisite	Requirement
B. Relevant and Appropriate Requirement			
1. Removal of contaminated soils	Surface Mining Control and Reclamation Act of 1977; 25 U.S.C. §§1201 et seq.; 30 CFR Parts 816.11, .95, .97, .100, .102, .107, .111, .113, .114, .116	Removal of contaminated surface soils.	.11-Posting signs and markers for reclamation, including top soil markers and perimeter markers. .95-Stabilization of all exposed surface areas to effectively control erosion and air pollution attendant to erosion. .97-Use of best technology currently available to minimize disturbances and adverse impacts on fish, wildlife, and related environmental values and achieve enhancement of such if possible; conduct no activity which would jeopardize continued existence of endangered species or like to destroy or adversely modify their critical habitat; avoid disturbances to, enhance where practicable, restore or replace, wetlands, riparian vegetation, and habitats for fish and wildlife.
1. Removal of contaminated soils (continued)			.100-Contemporaneous reclamation including, but not limited to backfilling, regrading, topsoil replacements and revegetation. Achieve approximate original contours, eliminate all highwalls, spoil piles, and depressions; .102-achieve a post action slope not exceeding angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides.
2. Threshold Limit Values (TLVs)	Established by American Conference of Governmental Industrial Hygienists (ACGIH).	Releases of airborne contaminants during remedial activities.	TLVs are based on the development of a time weighted average (TWA) exposure to an airborne contaminant over an 8-hour work day or a 40-hour work week. TLVs identify levels of airborne contaminants at which health risks may be associated. Since there are no ARARs for several of the contaminants of concern--arsenic, antimony, copper, cadmium, mercury, and zinc--the TLVs should be considered for remedial activities which will cause airborne emission of such chemicals. The TLVs for the contaminants of concern are as follows: Antimony 500 $\mu g/m^3$ Arsenic 200 $\mu g/m^3$ Cadmium 50 $\mu g/m^3$ Copper fume=200 $\mu g/m^3$ dust=1,000 $\mu g/m^3$

Table 10-3 (Page 3 of 4)
Federal Action-Specific ARARs

Action-Specific	Citation	Prerequisite	Requirement
2. Threshold Limit Values (TLVs) (Continued)			Lead 150 $\mu g/m^3$ Mercury alkyl=10 $\mu g/m^3$ Except Alkyl: vapor=50 $\mu g/m^3$ inorganic=100 $\mu g/m^3$ Zinc ZnCl=1,000 $\mu g/m^3$ Zinc Oxide: fume=5,000 $\mu g/m^3$ dust=10,000 $\mu g/m^3$
3. Treatment, Storage, or Disposal of Wastes	40 CFR 264.13, .14	The treatment, storage or disposal of RCRA regulated wastes.	Prevent unknowing entry and minimize the possibility of unauthorized entry of persons or livestock to the active portion of the facility. Includes: - artificial or natural barrier completely surrounding the active area - a means to control entry - a sign stating *'Danger, Unauthorized Personnel Keep Out.'*
C. To Be Considered Materials			
1. Estimated Limit Values (ELVs)	Established by American Conference of Governmental Industrial Hygienists (ACGIH).	Releases of airborne contaminants during remedial activities.	ELVs are based on Threshold Limit Values (TLVs) and converted to reflect exposure to contaminants on a 24-hour/ day basis. The calculation of an ELV does not take into consideration the additive and synergistic effects of contaminants and additional exposures from media other than air. ELVs are not expected to be completely protective of the potential effects of exposures to contaminants; however, they do provide some indication of airborne contaminant levels at which adverse health effects could occur. Since there are no ARARs for several of the contaminants of concern--arsenic, antimony, copper, cadmium, mercury, and zinc--the ELVs should be considered for remedial activities which will cause airborne emission of such chemicals. The ELVs for the contaminants of concern are as follows:

Table 10-3 (Page 4 of 4)
Federal Action-Specific ARARs

Action-Specific	Citation	Prerequisite	Requirement	
1. Estimated Limit Values (ELVs) (continued)			Antimony	10.0 $\mu g/m^3$
			Arsenic	5.0 $\mu g/m^3$
			Cadmium	1.0 $\mu g/m^3$
			Copper	fume=5.0 $\mu g/m^3$ dust=20.0 $\mu g/m^3$
			Lead	4.0 $\mu g/m^3$
			Mercury	alkyl=0.2 $\mu g/m^3$ Except Alkyl: vapor=1.0 $\mu g/m^3$ inorganic= 2.0 $\mu g/m^3$
			Zinc	ZnCl=20.0 $\mu g/m^3$ Zinc Oxide: fume=120 $\mu g/m^3$ dust=200 $\mu g/m^3$

Table 10-4
State of Idaho Chemical-Specific ARARs

Chemical-Specific	Citation	Prerequisite	Requirement
I. Air			
A. Applicable Requirement			
1. Toxic Substances	IDAPA §16.01.1011,01	Emission of air contaminants that are toxic to human health, animal life, or vegetation.	Emissions of air contaminants which occur during remedial activities will not be in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human health, animal life or vegetation
B. Relevant and Appropriate	None		
C. To Be Considered	None		
II. Soil	None		

Table 10-5
State of Idaho Location-Specific ARARs

Location-Specific	Citation	Prerequisite	Requirement
I. Air	None		
II. Soil			
A. Applicable Requirement			
1. Areas Adjacent to or in the Vicinity of State Waters	IDAPA §16.01.2800	Storage or disposal of hazardous or deleterious materials in the vicinity of, or adjacent to, state waters.	The remedial action will be designed with adequate measures and controls to ensure stored or disposed contaminated soils will not enter state waters as a result of high water, precipitation, runoff, wind, facility failure, accidents or third-party activities.
B. Relevant and Appropriate Requirement			
1. Siting of Hazardous Waste Disposal Facility	I.C. §§39-5801 et seq.	Siting of a hazardous waste disposal facility.	The remedial action will be designed to satisfy some of the technical criteria in the Idaho Hazardous Waste Siting Management Plan as adopted by the Idaho Legislature. Consideration will be given in remedy design to general considerations referenced by the Hazardous Waste Facility Siting Act. However, a siting license for an onsite hazardous waste disposal facility is not required.

Table 10-6
State of Idaho Action-Specific ARARs

Action-Specific	Citation	Prerequisite	Requirement
I. Air			
A. Applicable Requirement			
1. Fugitive Dust	IDAPA §16.01.1251-16.01.1252	Emission of airborne particulate matter.	The remedial action will be designed to take all reasonable precautions to prevent particulate matter from becoming airborne including but not limited to, as appropriate, the use of water or chemicals as dust suppressants, the covering of trucks and the prompt removal and handling of excavated materials.
II. Soil			
A. Applicable Requirement			
1. Management of Solid Waste	IDAPA §§16.01.5000 et seq.	Management of solid waste including storage, collection, transfer, transport, processing, separation, treatment and disposal.	The remedial action will be designed to manage solid waste to prevent health hazards, public nuisances and pollution to the environment in accordance with the applicable solid waste management requirements. No permit is required for onsite actions.
2. Activities Generating Non-point Discharges to Surface Waters	IDAPA §§16.01.2050,06 and 16.01.2300,04	Construction and other activities which may lead to non-point source discharges to surface waters.	The remedial action will be designed to utilize best management practices or knowledgeable and reasonable efforts in construction activities to minimize adverse water quality impacts and provide full protection or maintenance of beneficial uses of surface waters.
B. Relevant and Appropriate			
1. Management of Hazardous Waste	I.C. §§39-4401 et seq., IDAPA §§16.01.5000 et seq.	Generation, transportation, storage or disposal of hazardous waste.	The remedial action will be designed to manage any hazardous waste that may be generated by the remedial action in accordance with the relevant and appropriate generation, transportation, storage and disposal requirements for such waste. Onsite actions are exempt from some requirements, and permits are not required for onsite activities.
C. To Be Considered	None		

Closure requirements address what actions are necessary to protect public health and the environment when the disposal action is complete. For this action, the relevant and appropriate closure requirements include: 1) capping to minimize airborne contaminant migration and reduce the threat of direct contact exposure; 2) long-term management of the disposal site, including cover maintenance and groundwater monitoring; and 3) institutional controls such as access restrictions, land use restrictions, and/or deed notices.

Closure requirements and landfill design and operating requirements with respect to groundwater and surface water protection will be addressed in a subsequent ROD.

RCRA minimum technology requirements are not appropriate for this action because the residential soils do not present hazards that warrant secure disposal.

Requirements of the Land Disposal Restrictions are not appropriate for this remedial action because the material will be moved within the AOC. Placement, as defined by RCRA, will not occur.

If Page Ponds is not used as the residential soils repository, the agencies will conduct an evaluation of ARARs specific to the repository site chosen.

IDHW and U.S. EPA have determined that all state and federal ARARs for residential soils removal and replacement will be met by the selected remedy. The agencies have not determined the ARARs with respect to groundwater and surface water protection as part of this operable unit ROD. That determination will be made in a subsequent ROD.

10.3 COST-EFFECTIVENESS

IDHW and U.S. EPA believe the selected remedy is cost-effective in mitigating the risk posed by contaminated residential soils. Section 300.430(f)(ii)(D) of the National Contingency Plan (NCP) requires an evaluation of cost-effectiveness by comparing all the alternatives that meet the threshold criteria (protection of human health and the environment) against three additional balancing criteria (long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; and short-term effectiveness). The selected remedy meets these criteria and provides overall effectiveness in proportion to its cost.

The selected remedy includes removing and replacing contaminated soils (or placing a soil cap, where appropriate), installing visual barriers (where applicable), revegetating, suppressing dust during remediation, disposing of contaminated materials, and monitoring for metals in soil. Institutional controls will ensure long-term maintenance of physical and institutional barriers that protect against metals exposure. This alternative is attractive because of the relatively low cost (approximately $41.3 million present worth) and expected effectiveness, as compared with other alternatives.

The principal difference between the selected remedy and two of the other alternatives is excavation depth. One alternative involves sod excavation and replacement without removal of underlying contaminated soils. Although less expensive than the selected remedy, sod removal and replacement would provide a less effective means of protecting human health and the environment. Another alternative, which required a 7-foot excavation depth, was considered excessive. Although an excavation depth of 7 feet would effectively remove the contaminated residential soils, the associated cost of $193 million was substantially higher than that for the selected remedy. The added remedial effectiveness would be marginal with respect to the additional cost.

An alternative with a pozzolanic treatment prior to disposal was also evaluated. Pozzolanic treatment would be intended to reduce the mobility of contaminants, as compared with untreated contaminated soil. However, the reduction in contaminant mobility is expected to be marginal with respect to the additional cost of $14.7 million. Contaminants in untreated soils would be adequately immobilized when disposed in a revegetated and properly contoured landfill. The selected alternative was therefore determined to be more cost-effective.

10.4 UTILIZATION OF PERMANENT SOLUTIONS AND ALTERNATIVE TREATMENT TECHNOLOGIES TO THE MAXIMUM EXTENT PRACTICABLE

IDHW and U.S. EPA believe the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a cost-effective manner for residential soils at the Bunker Hill site. Of the alternatives protective of human health and the environment and that comply with ARARs, the selected remedy provides the best balance in terms of long-term effectiveness and permanence; reduction of toxicity, mobility, volume, and persistence; short-term effectiveness; implementability; and cost. Also, the selected remedy considers the statutory preference for treatment as a principal element and considers community acceptance.

Long-term effectiveness was the primary reason for selecting Alternative 3 over Alternative 5. Twelve inches of soil and sod provide a much more permanent physical barrier to potential exposure than simply a sod barrier. The institutional controls associated with Alternative 3 improved community acceptance because the controls are less intrusive compared to Alternative 5. The cost of removing soils to a depth of 7 feet in Alternative 6 was too high compared to Alternative 3, considering the associated incremental improvement in permanence.

The selected remedy does utilize alternative treatment and resource recovery technologies to the maximum extent practicable. Treatment of residential soils was not found to be practicable; therefore, this remedy does not satisfy the statutory preference for treatment as a principal element. The combination of high soil volume, the nature of metal contamination, and the need to excavate soils from yards prior to application of a treatment technology like soil washing made the costs of any known treatment technology, whether proven or unproven, prohibitive. An *in situ* soil treatment process would have eliminated the soil handling requirement. However, fixation or pozzolanic treatments are not consistent with the uses of a residential yard. There are no other *in situ* treatment technologies known to be effective in removing metals from soil.

10.5 PREFERENCE FOR TREATMENT AS A PRINCIPAL ELEMENT

For the reasons described above, the selected remedy does not satisfy the statutory preference for treatment as a principal element. However, this engineering control/containment remedy is consistent with the Superfund program expectations stated in the NCP (40 CFR 430(a)(1)(iii)(B)).

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY FOR THE RESIDENTIAL SOIL OPERABLE UNIT

POPULATED AREAS OF THE BUNKER HILL SUPERFUND SITE

SHOSHONE COUNTY, IDAHO

CONTENTS

TABLES

1 OVERVIEW

Contaminated residential soils are the first operable unit to be addressed through a Record of Decision (ROD) at the Bunker Hill Superfund Site. A proposed plan for residential soils remediation was issued to the public April 29, 1991. A 60-day public comment period began on that day and continued through June 30, 1991. The Proposed Plan recommended removal of 12 inches of soil and replacement with clean material at all residential yards that have soil lead concentrations exceeding 1,000 parts per million (ppm). The Proposed Plan also required placement of a 2-inch gravel visual marker between the clean backfill and any contaminated residual soil. Yards would be revegetated once the area is returned to appropriate grade with clean replacement soil. The Proposed Plan stated that excavated contaminated soils would be disposed at the Page Ponds facility. Upon completion of all soil removal, the disposal site would be stabilized to prevent contaminant migration by wind and water erosion and closed with an impermeable cap. One purpose of the cap was to block the leaching through the highly contaminated underlying tailings. An institutional controls program consisting of permitting requirements and education and health intervention programs would be implemented to maintain the integrity of the residential soil barriers.

Based on public comment, it appears that the public in general favored the proposed remedy. The concern raised most often was that remediation should begin as soon as possible. There was public comment relating to the potentially high cost associated with the gravel barrier. The Potentially Responsible Parties (PRPs) expressed concern at the requirement to excavate 12 inches in all yards when in many cases contamination was present in only the top 6 inches of soil. The PRPs also questioned the use of the 1,000 ppm threshold level and the application of some parameters used to calculate the value. Additionally, the PRPs did not believe that it was appropriate to propose an impermeable cap at the Page Ponds disposal site to address groundwater contamination without performing a comprehensive and integrated analysis of the groundwater contamination issue. They believed that it would be more appropriate to address groundwater contamination in a subsequent Feasibility Study (FS).

The selected remedial alternative, as presented in the Residential Soils Record of Decision, has been modified in response to comments received. The recommended remedy no longer requires use of a 2-inch gravel layer as the visual marker. The marker is still required, but different materials may be used. Less than 12 inches of soil may be removed if sampling shows that contamination does not exceed the 1,000 ppm threshold level at depths between 6 and 12 inches. In any case, a 12-inch clean soil barrier is required over any remaining residential soils that exceed 1,000 ppm. In addition, an impermeable cap was required at the Page Ponds Residential Soil Repository to protect groundwater. However, the ARARs to protect groundwater **and surface water** will be evaluated in a subsequent FS and ROD.

A complete listing of all comments received from the public and PRPs and the agencies' response is included herein.

2 SITE HISTORY AND BACKGROUND ON COMMUNITY INVOLVEMENT

The Bunker Hill Superfund Study area is approximately 7 miles long and 3 miles wide, covering a 21-square-mile area encompassing the cities of Kellogg, Wardner, Smelterville, and Pinehurst and surrounding residential areas. In the center of the site is the Bunker Hill mining, milling, and smelting complex. The primary materials produced were lead, zinc, cadmium, silver, gold, and their alloys. The lead smelter operated from 1917 to 1982 and its zinc plant from 1928 to 1982. During this period, particulates containing lead and other heavy metals were discharged through stacks and from throughout the facilities and dispersed over the project area. Disposal of mill tailings into the river from mining activities also contributed to metal contamination of the site.

In 1974, two cases of excessive lead absorption in children from Kellogg were reported. Detailed epidemiological studies were subsequently conducted on children in the valley, and it was determined that significant numbers of children had elevated lead levels in their blood. Numerous environmental samples were collected from their home environments including soil and vegetation from yards and play areas, interior dust from the home, interior and exterior paint, and garden vegetables. In addition to biological and environmental sampling, a questionnaire was administered to participants to gain socioeconomic and historical information.

Following the 1974 survey, an intensive effort was made to educate the community about the lead health issue and the measures that could be taken to lower blood lead levels. Blood lead screenings were a part of a community Health Intervention Program and have continued to the present.

Since the discovery of the blood lead problem in 1974, IDHW, Panhandle Health District (PHD), and the federal Centers for Disease Control (CDC) have continuously worked with the area residents to reduce exposures to lead. Public meetings have been held in Kellogg to explain blood survey results and to discuss public questions and concerns. Radio talk shows and news releases have also been used as a public forum to address the lead health issues. The PHD has served as a local source of information and education regarding lead and how exposures may be reduced.

Concerns expressed by the community over the years have been documented in the Community Relations Plans for 1987 and 1990. Some specific concerns documented during interviews with local citizens are described below with an explanation of how these concerns were addressed. Concerns expressed in the interviews are representative of the statements and questions asked by individuals during public meetings.

There was concern about the potential impact of the area's Superfund status on the local economy and property values. The U.S. EPA has worked with the Department of Housing and Urban Development to ensure that lenders in the valley will not prevent or delay sales of property due to the Superfund designation. The U.S. EPA and PHD have also worked to help educate lenders about lender liability issues. Hiring of local workers for any Superfund work was encouraged within the framework of fair hiring practice regulations. The U.S. EPA has also signed a "covenant not to sue" agreement to facilitate construction of the Silver Mountain gondola. The gondola project is expected to help enhance the local tourism industry.

Questions about the amount of time it is taking to clean up the site were asked in several different forums. To address this concern, the agencies split the site into smaller operable units so that the work can be initiated as study of each unit is completed. For example, studies for the Residential Soils operable unit were completed before the studies for other units which allowed the agencies to select the cleanup remedy for residential soils before the completion of other studies.

Inquiries about the participation of the PRPs were received on several different occasions. The agencies have worked with a PRP in completion of the Non-populated Areas Remedial Investigation Study. A consortium of PRPs has come together to propose a cleanup plan for the entire site. This plan is being evaluated through the Superfund RI/FS process. The agencies are working with the PRPs to complete the RI/FS and develop a plan to address remaining issues.

Concerns about blowing dust have been expressed over the years. Specific concerns are the health impacts from exposure to dust and recontamination of areas that have been remediated through the 1986, 1989, and 1990 removal actions. Owners of dust source properties were asked by the agencies to control dust throughout the project. In addition, specific orders were issued to require the PRPs to control dust on at least a temporary basis until a final remedy for dust control in specific areas is selected.

Impacts on land use of the residential soil cleanup and cleanup of the rest of the site is a concern that was voiced by community leaders and local citizens. The agencies are working closely with the communities through the PHD to develop an institutional control system that minimizes impacts on an individual's land use.

There was concern about the continued health risks for children and adults living in the valley. The agencies have worked closely with the Agency for Toxic Substance and Disease Registry (ATSDR) and the CDC to address community health concerns. Workshops and public meetings have been held to discuss the risks associated with living in residential areas onsite and how these risks can be minimized. Several specific health questions were presented by the state in response to community concerns at a public meeting and were answered by ATSDR. The Community Health Intervention Program has also been ongoing to help address health concerns. Homes of young children and pregnant women were considered a priority for soils removal.

To facilitate community involvement, the Shoshone County Commissioners selected a nine-member task force to serve as a liaison committee between the community and the Bunker Hill Superfund Project Team made up of U.S. EPA, IDHW, and PHD staff and contractors. Four public information repositories were also established onsite. Table 1 includes: locations of the repositories; a summary of the number of task force meetings, and meetings held with other community groups; the number of fact sheets and other information; and identification of local contacts. Tables 2 and 3 list the public meetings held with the task force and the fact sheets and other information distributed door to door to every residence within the site, respectively.

Table 1
Summary of Community Relations Activities at the Bunker Hill Superfund Site
May 1985 to July 1991

Public Information Repositories

Kellogg City Hall
323 Main Street
Kellogg, ID 83837
208/786-9131

Kellogg Public Library
16 W. Market Street
Kellogg, ID 83837
208/786-7231

Smelterville City Hall
Smelterville, ID 83868
208/786-3351

Pinehurst-Kingston Library
107 Main Avenue
Pinehurst, ID 83850
208/682-3483

Task Force Members (Nine representatives from the local communities)

Public Task Force Meetings (35)

1985 (6); 1986 (8); 1987 (6); 1988 (6); 1989 (4); 1990 (3); 1991 (2)

Meetings With Groups/Civic Organizations (84)

1985 (5); 1986 (13); 1987 (10); 1988 (14); 1989 (11); 1990 (12); 1991 (19)

Includes meetings with:

Elected Officials
Idaho Citizens Network
Lions Club
School District
Sewer District
Chamber of Commerce
American Association of Mining Engineers
Project Uplift
Homeowners
Kiwanis
Board of Realtors
KEA
Gondola Committee
North Idaho Pensioners
Clutch
Clean Lakes Coordinating Council
Industry

Meetings With Fair Share/Idaho Citizens Network (18)

Fact Sheets and Other Information (Distributed Door to Door) (25)

Local Contacts (2)

Jerry Cobb
Panhandle Health District
P.O. Box 108
Silverton, ID 83867
208/752-1235

Scott Peterson
IDHW Project Office
10 E. Station Avenue
Kellogg, ID 83837
208/783-5781

3 SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSES ON THE PROPOSED PLAN FOR CLEANUP OF RESIDENTIAL SOILS WITHIN THE POPULATED AREAS OF THE BUNKER HILL SUPERFUND SITE

This responsiveness summary addresses the comments received by U.S. EPA and IDHW concerning the Proposed Plan for Cleanup of Residential Soil within the Populated Areas of the Bunker Hill Superfund Site. Comments and questions raised during the public comment period are summarized below. Several of the comments addressed similar concerns and have been grouped accordingly. The summary of comments has been organized into three sections for clarity:

1. Comments received from the public at large

2. Comments received from the Potentially Responsible Parties (PRPs)

3. Public officials' comments on the Institutional Controls Program

Copies of the transcript for the meeting and comment letters received are available in the Residential Soils Administrative Record located at the Kellogg Public Library.

3.1 WRITTEN AND VERBAL COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD

3.1.1 WRITTEN COMMENTS RECEIVED FROM AREA RESIDENTS DURING THE PUBLIC COMMENT PERIOD

Comment: One commenter believed that the inclusion of a gravel layer as a visual marker was excessive based on its cost and the impact that cost would have on the Potentially Responsible Parties.

Response: The purpose of the gravel barrier is to provide a visual indication to homeowners who, during normal activities such as installing a fence or remodeling a home, may encounter buried contaminated soils. The selected alternative will include some type of visual barrier. It is anticipated that the cost of the barrier will be reduced by considering alternative materials to gravel. This will alleviate the concern regarding cost while still providing a visual barrier.

Comment: One commenter stated that there should be variable excavation depths rather than a set depth for all properties.

Response: An allowance for a variable removal depth has been included in the Record of Decision. The depth of removal will be based on a specific sampling and analysis plan. Regardless of the depth of removal, there will be a 12-inch soil column in place in each yard with a soil lead concentration less than 1,000 ppm at any interval.

Comment: One commenter stated that the No Action Alternative should be selected. Decreasing blood lead levels were proof to the commenter that further expenditure of funds is unnecessary.

Response: Although blood lead levels have been decreasing over time, they are currently at unacceptably high levels. Further reduction through environmental remediation is therefore required. The agencies believe that selection of the No Action Alternative would not be protective of human health and the environment.

Comment: One commenter asked that the residents who had lived in the area the longest be given priority for yard remediation rather than the younger children who might have recently moved into the valley but fit the age criteria for yard remediation.

Response: Residential soil removal activities in the past were prioritized based on sensitive subpopulations (young children and pregnant women). Future actions will be based on the goal of obtaining a communitywide soil lead concentration of 200 to 300 ppm lead in soil with an action level of 1,000 ppm rather than sensitive subpopulations. The sequencing of the residential yards to be remediated will be determined in the next phase, the remedial design portion of the project. However, sensitive populations will continue to be prioritized.

Comment: One commenter wants asphalt installed on road shoulders between paved roads and residential yards since gravel shoulders could wash away, exposing contaminated material.

Response: A 12-inch layer of soil will be removed from road shoulders where appropriate and will be replaced with material as required by local and state government regulations.

Comment: One commenter would like a lined landfill designed and constructed on the old Bunker Hill site to serve as the county landfill.

Response: It is anticipated that a repository for residential yard soil will be created onsite. However, it is not anticipated that it will be able to accept municipal solid waste from the area residents. The design and operational standards for a municipal landfill are different than those required for a residential soil repository. Also, the addition of municipal solid waste into the soil repository may exacerbate metals migration through the production of leachate which is generated when water runs through waste material and picks up contaminants which may then enter groundwater.

Comment: One commenter was concerned that the feasibility study and proposed plan did not address the groundwater. Without considering the groundwater, the commenter notes, the long-term effectiveness of the remediation is in question. The commenter stated that Applicable or Relevant and Appropriate Requirements should have been considered for groundwater.

Response: The feasibility study and the proposed plan specifically stated that a groundwater remedy was not being considered in the documents supporting the residential soil operable unit. Groundwater issues are being considered on a larger sitewide basis in order to address the many potential sources of contamination. Groundwater will be addressed in a separate ROD at a later date.

3.1.2 VERBAL COMMENTS FROM THE PUBLIC HEARING

Comment: Four commenters expressed their support for the Preferred Alternative and a strong desire to move forward with the remedial portions of the project and not let it drag on for many years.

Response: Initially, the site was split into two separate RI/FS efforts in order to, among other things, expedite the RI/FS process in the Populated Areas of the site.

The agencies believe that there is community acceptance for the Preferred Alternative as indicated in the Proposed Plan. The agencies are committed to remedial action as soon as possible in the residential areas of the Bunker Hill Superfund Site.

Comment: One commenter wants residential yards put back to equivalent or better condition than when cleanup action was initiated.

Response: It has always been a goal during residential soil remediation to restore yards to an equivalent or better condition than before cleanup. This will continue to be a goal in the future and, as the remedial activities progress, construction requirements to achieve this goal will be improved.

Comment: One commenter wants to see the Health Intervention Program continued and a trust fund established for health prevention in the community.

Response: It is anticipated that the Health Intervention Program will be continued as part of the institutional controls program. Issues of health effects related to past exposures have been referred to ATSDR for consideration.

Comment: One commenter would like the priority for jobs during the remedial action to be given to local residents to help defray the high unemployment in the valley.

Response: The agencies have always encouraged and hired local citizens to assist with the Superfund process where it is appropriate. In the event that private companies are responsible for carrying out remedial activities, the agencies will encourage them to hire local citizens. However, hiring decisions will be the prerogative of the private companies.

Comment: One commenter wants the feasibility studies completed as soon as possible so that public comment can take place and the remedial decisions can be made part of the final Master Plan. In a similar comment, another commenter wanted the residential soil removal to be conducive to the Master Cleanup Plan.

Response: The feasibility study and proposed plan for the residential soils in the Populated Areas is complete. The remediation of residential soils will take place as soon as possible. The agencies currently intend to integrate residential soil remediation with other remedial activities onsite.

Comment: One commenter recommended and stressed that all concerned parties work together.

Response: The agencies continue to work with all interested parties and welcome input from those parties. Public participation has occurred throughout the RI/FS process and will continue in the future.

Comment: One commenter was concerned about the Superfund designation hurting investment opportunity and wanted the U.S. EPA and the PRPs to start the actual cleanup of the lead smelter, zinc plant, and Central Impoundment Area (CIA).

Response: The cleanup of the areas specifically addressed in the comment are separate from the residential soils within the Populated Areas of the Bunker Hill Superfund Site. These areas are being addressed in the Non-populated Areas RI/FS.

Comment: One commenter expressed support for the 1,000 ppm action level.

Response: Based on the Risk Assessment Data Evaluation Report (RADER), the agencies believe that the selection of the 1,000 ppm action level for residential soil remediation will protect human health.

3.2 COMMENTS SUBMITTED BY THE POTENTIALLY RESPONSIBLE PARTIES (PRPs)

Comments were received during the public comment period from three potentially responsible parties: ASARCO Incorporated, Gulf Resources & Chemical Corporation, and HECLA Mining Company on U.S. EPA's proposed plan for cleanup of residential soil within the Populated Areas of the Bunker Hill Superfund Site. Comments were received in a document organized in the following format:

I. The FS Supports at Most Selection of Alternative 5

II. EPA's Designation of 1,000 ppm Soil Cleanup Level is Not Consistent with Sound Science or This Record

- A. EPA's Establishment of a 10 µg/dl Remedial Action Objective is Unjustified
- B. EPA Employed Several Inappropriate Values in Applying the Biokinetic Model
- C. EPA Employed an Overly Conservative Geometric Standard Deviation in Analyzing the Biokinetic Model's Output
- D. When Appropriate Values are Employed, the Biokinetic Model Supports a 1,900-ppm Soil Lead Cleanup Level

III. To the Extent an Excavation Remedy is Adopted, Several Aspects of Alternative 3 Should be Eliminated or Revised

- A. Universal 12-Inch Soil Excavation is Unjustified
- B. The Proposed Gravel Layer is Unnecessary
- C. The FS Improperly Addresses the Page Ponds Disposal Site

IV. The Proposed Institutional Controls Program Must be Revised

- A. The Scope of the Institutional Controls Program Should be Limited
- B. A More Cautious Approach to Program Implementation is Required

V. Miscellaneous Other Comments

In order to easily correlate responses to comments, the above-ordered format of the comments has been maintained as much as possible. In many cases there was supporting text for each comment. Responses have been developed for the general comments and the supporting text as much as possible.

COMMENT I: The FS Supports at Most Selection of Alternative 5; "There are nine criteria for evaluation of remedial alternatives: ...Properly explained by EPA, Alternative 5 appears to meet them all. The only significant reservation EPA has expressed about Alternative 5 is that sod would not hold up over time, or would not be well maintained. ...The record is devoid of information, however, to suggest that, when properly maintained, sod replacement would not provide long-term remediation at the site. Nor does it raise substantial doubts that sod can be maintained."

Response: The commenter is correct that there are nine criteria against which each remedial action alternative is judged. However, the commenter is incorrect is stating that Alternative 5 meets all of them. The last criterion is Community Acceptance. Public comments have been received in the past regarding the potential burden of the Institutional Controls Program. Since the residents of the site prefer the least burdensome institutional controls program, the agencies support Alternative 3 rather than Alternative 5 since it is judged to have a less burdensome institutional controls program. Comments were received during the public comment period in favor of Alternative 3 while no comments, with the exception of those from the Potentially Responsible Parties, were received in support of Alternative 5. Therefore, there is greater community acceptance of Alternative 3.

Also, the long-term effectiveness of Alternative 5 is questionable. The FS states: "Although Alternative 5 constitutes a reliable short-term solution, it requires a labor- and enforcement-intensive effort for long-term success. The permanence of Alternative 5 is directly related to maintenance of the protective cover. Alternative 5 has the lowest long-term effectiveness of all alternatives (with the exception of the No Action Alternative.)

The agencies are not suggesting that a properly maintained sod barrier would not meet the long-term effectiveness criteria. However, the agencies do have reservations, and these are **significant** reservations as suggested by the commenter, that the maintenance of the sod barrier over a long time period would be extremely difficult. The long-term effectiveness of Alternative 5 was judged to be the least with the exception of the No Action Alternative.

The comment states that the FS is "devoid of information" that the sod layer would not be an effective long-term alternative. It should also be pointed out that the commenters presented no supporting information regarding the efficacy of a sod layer as an effective long-term remedial alternative. In short, there is little information regarding long-term effectiveness of a remedial alternative instituted on such a large scale. Therefore, the agencies believe it is appropriate to select an alternative (Alternative 3) which logic suggests has greater long-term effectiveness, has more state and community acceptance, and has a less stringent institutional controls program.

Alternative 5 is the easiest to implement and the least costly of all alternatives considered, with the exception of the No Action Alternative. The agencies do not consider Alternative 5 to have the long-term effectiveness of Alternatives 3, 6, or 8. The criterion of long-term effectiveness was judged to be significant enough to not select Alternative 5 as the Preferred Alternative. Based on these comments, the agencies' selection of Alternative 3 is judged to provide greater protection of human health and the environment.

COMMENT II: EPA'S Designation of a 1,000 ppm Soil Cleanup Level is Not Consistent With Sound Science on This Record

Response: The U.S. Department of Health and Human Services' "*Strategic Plan for the Elimination of Childhood Lead Poisoning*" (February 1991) has identified adverse health effects associated with 10 μg/dl blood lead and have proposed 10 μg/dl as the definition of lead poisoning in children.

U.S. EPA and IDHW have identified 10 μg Pb/dl blood as the appropriate Remedial Action Objective for this site.

The agencies disagree with the commenter's assertion that the remedial action objective is unsupported and unnecessarily conservative. This is a conclusion drawn by the commenters and appears to be based on the comments found under II.A. through II.D. (as follows). The agencies are responding to a situation at the Bunker Hill site where imminent and substantial endangerment exists for area residents. The agencies believe that while the attainment of natural background contaminant levels in soils and dusts in the Silver Valley would offer the most protection to the community relative to heavy exposures, it is less than practical. Therefore, U.S. EPA and IDHW have identified as a remedial goal the reduction of heavy metal exposures to levels that would minimize (but not necessarily eliminate) adverse effects to sensitive populations in the study area.

The administrative record shows that the implementation of a 1,000 ppm **Soil Lead Cleanup Threshold** yields a maximum soil lead concentration for any individual yard at less than 1,000 ppm with community mean soil lead concentrations of 122 ppm, 121 ppm, 174 ppm, 278 ppm, and 275 ppm for Smelterville, Kellogg, Wardner, Page, and Pinehurst, respectively. House dust lead levels are expected to exhibit a consequent reduction because of residential yard soil remediation. The administrative record, specifically the RADER, presents the methodologies and associated data used for evaluating and determining the soil lead cleanup threshold identified in the remedial plan for residential yard soils. These reductions in environmental lead levels and implementation of an institutional controls program are components of a comprehensive plan designed to achieve the remedial objective by reducing environmental exposures to sensitive populations.

Several factors were considered in the agencies' selection of the 1,000 ppm **Soil Lead Cleanup Threshold.** The agencies believe all were consistent with sound science and the project record. The selected cleanup threshold is based to a large degree on analyses of the site-specific data base available for this population. This data base has accumulated over 17 years of epidemiological data following the identification of community childhood lead poisoning.

Input parameters used in the dose-response modeling, as it has been applied at the Bunker Hill site, are site-specific and may not be appropriate for other sites. Input parameters have been validated for preremedial conditions using the site's epidemiological data base. Use of the model for determination of threshold soil and dust lead cleanup levels has not incorporated any uncertainly or safety factors for the establishment of remedial goals. The agencies believe that the dose-response modeling has been balanced, based on site-specific observations, and does not incorporate the margin of safety usually applied in evaluations where less epidemiologic data and more uncertainty are found.

Comment II.A.: EPA'S Establishment of a 10 μg/dl Remedial Action Objective is Unjustified

Response: In order to evaluate unnecessary and adverse exposures of sensitive populations to lead, U.S. EPA and IDHW have reviewed and considered most of the available scientific, technical, and health/toxicological literature, as well as consulted with knowledgeable health authorities (see Sections 3.5.1.5 and 5 in the Protocol Document and Section 6.2.2 in the RADER). This evaluation is required to support a cleanup plan that is protective of public health. While the uncertainties identified with (the subtle and chronic) health effects described in low-level lead exposure studies are recognized by the agencies as well as the commenters, the remedial plan, nevertheless, must consider those uncertainties and make assumptions that err on the side of both individual and community protectiveness. (Federal agencies, including ATSDR and EPA, have identified a blood lead threshold of 10 μg/dl for sensitive populations for the protection of community health.) Specifically, U.S. EPA and IDHW have established a community blood lead remedial action objective of ≤10 μg/dl blood for greater than 95 percent of the childhood population with not more than 1 percent of the population exceeding 15 μg/dl. This objective is consistent with the Clean Air Scientific Advisory Committee's finding that blood lead levels in the range of 10 to 15 μg/dl warrant avoidance. In addition, the committee concluded that there was likely no blood lead threshold level at which adverse health effects did not occur and that all practical steps should be taken to minimize childhood lead exposures. The agencies are also aware that the childhood blood lead level of concern has been decreasing and that further reductions are likely.

Comment II.B.: EPA Employed Several Inappropriate Values in Applying the Biokinetic Model

Response: The use of a 42 percent respiratory absorption/deposition value for lead in air is justified and based on earlier studies as cited in both the RADER and Protocol Document. A lower value, such as 32 percent used as the default value in the LEAD4 model, does not significantly affect the model results and would only increase slightly the lead contribution from ingested soils and dusts. The use of a lower respiratory adsorption/deposition value would result in a greater soil/dust lead dose coefficient and thus a lower soil lead cleanup threshold (<1,000 ppm) for remediation.

U.S. EPA assumed a 100 ppm lead in replacement soils rather than a lower value in order to allow some minimal recontamination of the soils used for replacement (typically, 60 ppm lead). Soil recontamination rates in some parts of the site have been observed to range from 10 to 100 ppm/yr. The use of 100 ppm soil lead for a replacement value in the site model allows for approximately 2 to 10 years for completion of the comprehensive plan. Any longer than 2 years requires the use of a greater value for replacement soils and the need for a lower (<1,000 ppm) soil lead cleanup threshold for remediation.

An air lead level in remediated areas of 0.14 $\mu g/m^3$ (which is the current annual mean air lead level) was assumed since the comprehensive remedial plan for dust control has not been finalized, nor has a site-specific air lead control value been established. It should be noted that post-remedial air lead level greater than 0.14 $\mu g/m^3$ is expected to result in unacceptable environmental exposures for sensitive members of the community. Allowing the air lead concentration to approach the current federal legal limit of 1.5 $\mu g/m^3$ is unacceptable for the site, since the soil lead cleanup threshold was determined using an air lead limit of 0.14 $\mu g/m^3$. It has been suggested that the federal limit as an enforcement standard would have been an appropriate model input parameter for

determining the soil lead cleanup threshold (which would have resulted in a soil lead cleanup threshold <1,000 ppm).

Comment II.C.: EPA Employed An Overly Conservative Geometric Standard Deviation in Analyzing the Biokinetic Model's Output

Response: Communitywide childhood blood lead variability, expressed in terms of the geometric standard deviation (GSD), has ranged from 1.65 to 1.77 during 1988 through 1990. Town/city childhood blood lead GSDs for the same period ranged from 1.59 to 1.85; the childhood population in Page (a minimally impacted community in the site) exhibited a GSD ranging from 1.62 to 1.85. Lower GSDs, including a GSD of 1.42, appear to be reasonable for describing population blood lead variability in areas exhibiting high uniformity and consistency in environmental lead contamination due to limited point source contributions. While mean blood lead levels at this site have decreased since the early to mid-1970s, the variance relative to the mean (or range) has increased during the same period. This suggests that multiple and various sources of lead contamination exist and have been unmasked in the residential areas following the elimination of primary point source emitters. The elimination of remaining contaminated media and sources throughout the site, including those found in the Non-populated Areas, may be expected to lower the post-remedial blood lead variability in the residential areas. However, without being able to address the post-remedial conditions in the Non-populated Areas at this time, the evaluation of post-remedial blood lead response was accomplished using a range of GSDs, 1.42 through 1.71. Higher GSDs are recommended if any potential exists for post-remedial increases in environmental lead concentrations resulting from transport of contaminated dusts and soils to residential areas from Non-populated Areas or other contaminated sources. Use of higher GSDs are warranted if the effectiveness of the long-term remedy for the entire site is compromised, and if significant change and diversity in population behavioral characteristics for future populations occur at the site. In addition, use of the higher GSDs could offer some margin of safety in the event any of the assumptions applied in the model were not appropriate for the post-remedial environment. For example, if the "low" soil/dust lead dose coefficients observed historically for the site fail to continue under post-remedial conditions, the 1,000 ppm cleanup threshold may not be sufficient to meet the remedial objective. In this case, the application of the more conservative, or higher, GSDs would help offset any excess exposures.

Post-remedial response and variability in the residential areas are expected to approach the community responses recently exhibited in the least impacted portions of the residential areas of the Bunker Hill site, such as Page and Pinehurst. Perimeter communities of the site with mean lead concentrations in soil and dust less than 1,000 ppm (where 20 to 37 percent of residential soils are greater than 1,000 ppm) exhibit childhood blood lead GSDs ranging from 1.59 to 1.85.

Comment II.D.: When Appropriate Values are Employed, the Biokinetic Model Supports a 1,900-ppm Soil Lead Cleanup Level

Response: Contrary to the recommendations of the commenters, the 1,000 ppm soil lead threshold is not "overly conservative." U.S. EPA and IDHW believe the PRP assertion is incorrect, and a soil lead cleanup threshold of 1,900 ppm for this community would result in a >30 percent likelihood of an individual child exceeding a blood lead level of 10 μg/dl and a 5 to 25 percent likelihood of exceeding 15 μg/dl. Both risks are unnecessarily high and considered unacceptable. A soil lead cleanup threshold of 1,000 ppm is expected to protect 95 percent of the children to a blood concentration

less than 10 mg/dl. In Smelterville and Kellogg, implementation of the 1,000 ppm lead threshold requires remediation for approximately 90 percent of the residential soils, which are some of the highest lead-contaminated soils in the Populated Areas. Seven to nine percent of the soils in this area (Smelterville and Kellogg) are between 500 and 1,000 ppm. Following the completion of remedial efforts, from 91 to 93 percent of the soil lead concentrations in Smelterville and Kellogg will be less than 500 ppm.

The identified threshold level of 1,000 ppm for lead in soils and dusts, in some parts of the community and for some childhood behaviors, may not be sufficiently protective. If children frequent areas with soil lead levels much greater than mean levels (approximately 200 to 300 ppm) established in the residential areas of the site following remediation, then blood lead levels could exceed the criterion established as the goal under the remediated plan. Higher offsite exposures to children would require considering lowering the residential soil lead threshold in order to offset excess offsite exposures. The 1,000 soil lead threshold in Smelterville, Kellogg, and Wardner is sufficiently protective of health if children remain in the residential areas and do not become unnecessarily exposed to high lead levels in the nonresidential portions of the site.

In Page and Pinehurst, where implementation of the 1,000 ppm lead threshold requires cleanup of approximately 37 percent and 20 percent, respectively, of the residential soils, a reduction in community blood lead levels is not expected to be as significant as in other portions of the residential area. This is due primarily to two factors: 1) after cleanup, community mean lead concentration for soils will be greater than in Smelterville, Kellogg, and Wardner; and 2) the soil/dust lead dose coefficient is approximately twice that found in most of the other residential portions of the site. Following the completion of remedial efforts, from 64 to 70 percent of the soil lead concentrations in Page and Pinehurst will be less than 500 ppm (as compared to ~92 percent in Smelterville and Kellogg). The remedial plan calls for post-remedial follow-up and monitoring as a component of the institutional controls program in order to ensure that health-based remedial goals have been achieved throughout the site.

U.S. EPA's analyses of environmental lead effects have undergone extensive sensitivity analyses for determination of reasonableness, and in almost all cases represent mean values for possible ranges in uptakes and blood lead response distributions. Several of the model input parameter values that were used for the determination of the soil lead cleanup threshold, such as the soil/dust lead dose coefficient and the post-remedial daily dietary lead intake, are lower than the values recommended in LEAD4. This results in a soil lead cleanup threshold that is higher than that estimated using default values found in the LEAD4 model. The remedial threshold for soil lead levels determined for this site is site-specific. While it is not projected to be 100 percent protective, it is expected to be protective for most (at least 95 percent) of the sensitive population. People who continue to have high blood lead concentrations after cleanup may require additional intervention efforts as part of the Institutional Controls Program.

In summary, the input parameters applied in the IU/BK model for the establishment of a soil/dust lead remedial threshold were for a population and environmental conditions that have typically exhibited a relatively low blood lead response. The current characteristics of the site and its population may not be representative of conditions after cleanup. Factors that support an evaluation of remedial effectiveness as remedial efforts proceed are: 1) public awareness and perception of the hazards associated with post-remedial environmental contamination are not expected to be as keen as prior to remediation; 2) the soil/dust lead dose coefficient for some portions of the community (especially in the perimeter areas of the site) are greater than the mean determined in

the central portions of the site; and 3) there is the lack of a safety or uncertainty factor for establishment of a remedial threshold for lead-contaminated soils and dusts.

COMMENT III: To the Extent An Excavation Remedy is Adopted, Several Aspects of Alternative 3 Should Be Eliminated or Revised

Comment III. A.: Universal 12-Inch Soil Excavation is Unjustified; Even if EPA could justify a 12-inch protective soil cover where excessive lead concentrations remain at lower soil profiles, there is no logical reason why the soil could not be tested at a 6-inch depth, and soil removal limited if the soil does not exceed the action level at that point.

Response: The agencies agree that if contamination greater than the threshold level does not exist below 6 inches, a 6-inch excavation depth would be acceptable.

Comment III. B.: The Proposed Gravel Layer is Unnecessary; To the extent a visual barrier is valuable, there are significantly simpler, less expensive, and equally effective ways to designate the cut/fill line.

Response: The primary purpose of the gravel barrier is to provide an easily identifiable interface between remediated and nonremediated soils. The agencies do not believe that the barrier should be eliminated since it is an important part of the institutional controls program. Also, the agencies do not agree with the commenters' assertion that it "generally will be readily apparent to any person digging at a remediated property where "new" fill ends and native materials begin."

Although the agencies believe that a physical barrier is necessary, the construction materials used for the barrier will be determined in the Remedial Design phase of the project. A gravel barrier was evaluated in the Feasibility Study since it is a readily available and commonly used construction material.

Comment III. C.: The FS Improperly Addresses the Page Ponds Disposal Site; Commenters believe that the use of Page Ponds as a final disposal site is not appropriate if the site would then be subject to regulation as a hazardous waste facility.

Response: When evaluating Applicable or Relevant and Appropriate Requirements (ARARs) for the site, RCRA must be considered. However, RCRA in its entirety is never "automatically" applied. Indeed, only portions of RCRA may be considered as ARARs.

The agencies agree that the ARARs associated with groundwater (**and surface water**) will be evaluated in a subsequent FS and ROD. The requirements associated with the Page Ponds repository for this ROD focus on airborne migration, direct contact, and maintenance.

COMMENT IV: The Proposed Institutional Controls Program Must Be Revised

General Response: The remedy selected for Residential Soils within the Populated Areas of the Bunker Hill Superfund Site includes both engineered and nonengineered controls. The goal of this cleanup action is to break the pathway between contaminants in residential soils and the people living on those properties. It is not feasible to remove or treat all the contamination associated with residential yards because of the depth of contamination at some residential properties. However, the agencies believe it will be protective of human health to provide a barrier between the at-depth contamination and residents, provided that the integrity of the barrier is maintained. One of the purposes of the ICP is to ensure the maintenance of barriers placed during the residential soils remediation.

Section III of this Responsiveness Summary outlines the extensive community involvement activities the agencies employed in scoping, evaluating, and choosing an Institutional Controls Program that: 1) minimizes inconvenience and loss of land use; 2) utilizes existing entities (does not create an additional bureaucracy); and 3) is self-sustaining while not imposing additional costs on local government, residents, or property owners.

The purpose of the report titled *An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site* was to evaluate various ICP options designed to provide a perpetual maintenance program for the installation, management, and replacement of barriers established during the cleanup of the Bunker Hill Superfund Site. While some of the ICP requirements evaluated in the above-mentioned document focus directly on maintenance of barriers established in residential yards, the report went further in assuming that there may be ICP requirements associated with the cleanup of other parts of the site. Therefore, there are pieces of the ICP that were evaluated, but are not being required as part of this Record of Decision (ROD), because this ROD focuses only on creating barriers in residential yards and the institutional controls associated with those barriers. The ICP associated with this ROD is intended to protect the integrity of the current and any future, barriers placed in service, update and maintain the community awareness/education effort, and provide monitoring and enforcement functions.

It is expected that once sitewide cleanup decisions are made, the ICP will need to be expanded to include any additional requirements associated with those decisions.

Comment IV.A.: The Scope of the ICP Should Be Limited; The commenters state that properties with a soil lead concentration less than the threshold level should be treated differently than those with concentrations above the threshold level. "Fully excavated" yards should not be subject to a special disposal system or be provided with "clean dirt services."

Response: The ICP associated with this ROD is structured to be a comprehensive and integrated program. In addition to the program being designed to maintain clean barriers, it is also intended to: 1) maintain records of which properties are clean, partially remediated, scheduled for remediation, unremediated, or under construction; 2) track various activities and ensure that a system is maintained whereby contaminated soils are not intermixed with clean soils; and 3) monitor activities or processes whereby a "clean" parcel may be contaminated from outside sources such as unauthorized dumping or erosion. The agencies agree that a "clean" yard may not need to be subject to the same requirements as a yard that is not fully "clean"; however, it is necessary for all yards to be tracked by a sitewide Institutional Controls Program.

The agencies believe that it may not be necessary to subject property owners with contaminant levels below the threshold level to special disposal requirements. However, until there is a system to sample, monitor, and document the "cleanness" of a specific property (both at the surface and at-depth), it is impossible to delineate between which properties should be subject to the special disposal requirements. The ROD requires implementation of an ICP that meets the physical and administrative needs outlined in Section 9 of the ROD. Part of the implementation or design of the ICP must include prescribing procedures for delineation of properties with respect to contaminant concentrations (i.e., development of a data base).

The requirement for provision of "clean dirt" is intended to ensure maintenance of barriers and provide a safe medium for gardening. There may be properties that do not

meet the requirements for remediation but have owners that are interested in growing their own produce. "Clean dirt" will be made available to any residential property owner for the purpose of establishing a produce garden.

Comment: The ICP must recognize that in some areas and for some uses the terms of sale and existing development standards will result in "remediation" at many properties. The same controls that apply to developed property should not necessarily apply to undeveloped property.

Response: The agencies recognize that there is potential for "remediation" to occur as a requirement of a real estate sales contract or as part of normal development requirements imposed by local flood plain ordinances and construction requirements associated with performance standards required by local land use ordinances. However, for this ROD, the ICP focuses on implementation, management, and maintenance of residential soils barriers only (i.e., barriers placed in residential yards in current residential areas). If the ICP is expanded as part of another ROD to include areas with development potential, requirements associated with development will be specified at that time. While such properties are not specifically included among the residential properties subject to remediation under this ROD, these properties may also be subject to institutional controls.

The ROD does include some undeveloped properties (see Figures 1-3 through 1-7 in the ROD) in and around current residential areas that will be included in the residential soils remedial effort. These properties become informal play and activity areas for children, and the agencies believe they require a protective barrier. The barrier at undeveloped properties will be no different than those at developed properties.

Comment IV.B.: A More Cautious Approach to Program Implementation is Required; The commenters do not believe the feasibility study analysis, specifically estimates of costs, is sufficiently substantiated to support reasoned and lawful decisionmaking. An interim program could be implemented for 5 to 7 years while "other remedial activities" proceed that would allow for identification of ICP needs and realistic cost estimates. Commenters suggest that during the "remediation period," the disposal/clean dirt system might be supplied by a group of potentially responsible parties, if they are implementing the program.

Response: The agencies believe that the institutional control evaluation entitled "*An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site,*" which is part of the Residential Soils Feasibility Study, and is included as part of the Administrative Record for the Residential Soils ROD is sufficient to support the Residential Soils Institutional Controls Program (ICP). At this time, the agencies have estimated the cost of the ICP; however, funding mechanisms for implementing the program will be determined by the agencies in the design phase of the remedial action process.

The ICP must be implemented concurrently with the residential soils remedial action because lack of such controls could jeopardize the effectiveness of the selected remedy.

The ROD outlines the components of an ICP for residential soils (i.e., a comprehensive management program to include permitting, community education, and soils services), but the actual implementation of the program will require at least the adoption of local ordinances, setting up an administrative system to oversee and run the program, and documentation of detailed procedures for each of the program components. This implementation phase has been referred to as "Phase II" (see page 1-3 of *An Evaluation*

of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site) and will involve a high degree of community participation.

In addition, the protectiveness of yard soil barriers is dependent on the success of the ICP, and the ICP will only be successful if it is not unduly burdensome, confusing, and/or restrictive for property owners and local government. The agencies believe that a lengthy period of essentially trial and error experience prior to developing final program elements would create unnecessary confusion and frustration.

Since contamination will be left in place with respect to the remedy described in the Residential Soils ROD, the agencies will periodically review the residential soils action to ensure its protectiveness. Part of this review will focus on the ICP and its effectiveness. If the ICP is determined to be inappropriate, changes to the program can be made through the review process.

The agencies agree that it is not necessary for a public entity to provide these services; however, it is essential that such services are perpetually integrated into the overall ICP.

Implementation, funding, and work required by the ICP for residential soils will be the subject of RD/RA and consent decree negotiations between the agencies and responsible parties.

COMMENT V. Miscellaneous Other Comments

Comment V.A.: "FS Table E-1 (p. ES-4) sets forth a summary of estimated present worth costs of the remedial alternatives evaluated in the FS. As its footnote 2 indicates, however, that analysis does not include re-remediation of 221 residential yards addressed during prior summer activities. Commenters support the conclusion, implicit in the analysis underlying this chart, that regardless of the remedial approach adopted for residential yards that have not yet been subject to removal activities, there is no basis for EPA to require re-remediation of soils which previously have been excavated in prior removal actions. Among other factors, the community impacts that would be associated with such reexcavation activities simply cannot be justified."

Response: The purpose of the footnote in Table E-1 is for informational purposes only. By not considering the already remediated properties in the cost estimates for each alternative, the same number of homes for potential remedial action is consistent from alternative to alternative.

The footnote does not in any way indicate a decision by the agencies to eliminate these homes from consideration of re-remediation. However, the selected remedy is consistent with the method in which these yards were addressed and the agencies do not intend to redo this work. If those properties become recontaminated in the future, they will be considered for re-remediation.

Comment V.B.: "The background information presented in Chapter 1 of the FS contains several errors of fact. The nonpopulated areas FS, referred to at page 1-1, is being conducted by Gulf Resources and Chemical Corporation and Pintlar Corporation, not Gulf Resources, Inc. Other nonpopulated areas activities are being co-sponsored by Gulf and others."

Response: Comment noted.

Comment V.C.: "In discussing the history of the site the FS incorrectly states that "for most of its operating life, the Bunker Hill complex had few or no controls on atmospheric emissions, solid waste

disposal, or waste water treatment." FS at p. 1-17. This is incorrect. A variety of pollution control devices were installed over the years. For example, tailings were impounded at the Bunker Hill complex beginning in 1928 and atmospheric emission controls were put in place from the time the processing facilities were constructed in 1917 and repeatedly improved over the years. Further, the paragraph on page 1-18 characterizing the effects of the 1973 "baghouse fire" prejudicially states disputed facts and conclusions that have no bearing on the FS. To avoid inaccuracy, this entire section should be deleted."

Response: Comment noted.

Comment V.D.: "The FS says that the current primary contaminant migration mechanism is airborne deposition of contaminated dust from fugitive dust sources "in and adjacent to the mining/smelting complex." Commenters agree that major dust sources are the properties owned by the Bunker Limited Partnership and its affiliated entities."

Response: Comment noted.

Comment V.E.: "FS Figure 1-5 purports to show general residential soil remediation pathways. Among those portrayed is an upward movement of metals, apparently from groundwater. In light of the FS's discounting of concerns for capillary action, and the data set forth in the McCulley, Frick & Gilman, Inc. memorandum attached as Exhibit C to these comments, those arrows should be eliminated. There also would appear to be no basis to include an arrow from the South Fork of the Coeur d'Alene River."

Response: The arrows in the referenced figure were placed to indicate potential pathways of migration to residential soil. Since the FS discounts the effect of capillary action on soil recontamination, the arrow was shaded to indicate that it is not a significant pathway. For further information, please see the response to Exhibit C comments.

The agencies believe that flooding and consequent deposition of solids from the South Fork of the Coeur d'Alene River is a potential source of recontamination and the arrow was appropriately placed on the figure.

Comment V.F.: "FS Table 2-1 sets forth Federal chemical-specific ARARs. It states that .5 µg/dl of lead per cubic meter of air is a proposed standard. This is incorrect. No such standard has been proposed nor, in the expectation of the Commenters, is likely to be proposed."

Response: See "*U.S. EPA. Report of the Clean Air Scientific Advisory Committee on its Review of the National Ambient Air Quality Standards for Lead", EPA-SAB-EC90-001. December 1989.*

Please note that the comment should use the units of µg Pb/m^3.

Comment V.G.: "FS Table 2-1 also describes among To Be Considered ("TBC") materials EPA's strategy document for reducing lead exposure. That document is not properly a TBC document. Rather, it is a document describing how EPA intends to implement various future rule-making activities. It has no independent scientific or regulatory importance."

Response: U.S. EPA and IDHW are considering this document a TBC for this site.

Comment V.H.: "At p. 6-23, the FS states that risks to human health and the environment would be likely to increase over time if left unmitigated. This is questionable. It is more likely that renewed growth of vegetation in the area would gradually mitigate the amount of contaminated dust and soil transported by winds and erosion. Replacement of residential site soils per se is going to have a very

limited effect as far as containing contaminated soil and dust from high winds and surface water runoff from the Superfund site."

Response: The statement as found in the FS (p. 6-33) is accurate. Continued transport of highly contaminated solids by both water and wind erosion to residential areas results in unnecessary and excess exposures to the community. Monitoring and modeling results presented in the RADER have shown that rates of lead deposition in some parts of the residential areas (up to 1 lb/acre/yr) have resulted in the accumulation of approximately 100 ppm/yr for lead in litter. Within the residential areas, yard soil concentrations for lead range from 53 to 17,800 ppm (1.78 percent Pb in soil). Any transport of highly contaminated solids within the site would result in an increase of community exposures and consequent health effects.

Mobilization of highly contaminated soils also increases its hazard potential since it is likely to be converted or introduced to media exhibiting high community exposure frequency, such as house dust. Soil transport and incorporation to house dusts is a major concern at the site since small soil particles exhibiting high metals content accumulate as dusts in homes and present high contact potential to sensitive populations. Any deterioration of current site conditions or reduction of effort towards mitigation or health intervention are likely to result in increased health risk to the community. The prospective for continued success of the Lead Health Intervention Program is not assured. Childhood blood lead levels at the site are doubtless reduced as a result of the aggressive monitoring and follow-up program currently instituted. It is doubtful that the 90+ percent level of participation exhibited by the community could be continued indefinitely. Those children currently protected by the program could be at great risk if the program were compromised.

Comment V.I.: "Re: Proposed Plan, p. 5: What is the explanation for the fact that children in Page have a blood lead average above 10 µg/dl Pb, whereas children in Smelterville, Kellogg, and Wardner average less than 10 µg/dl Pb, even though soil lead levels in those communities are double or triple the levels found in Page? Does this not suggest that there may be an entirely different source involved rather than lead in soil? Also, does it not raise a serious doubt as to the rationality of the 1,000 µg/g Pb [ppm lead] criteria?"

Response: Page and Pinehurst blood lead responses are approximately equivalent to those observed in other studies, and it is the response in Smelterville, Kellogg, and Wardner that is considered atypical. There is greater uncertainty that the 1,000 ppm soil lead cleanup threshold is protective in Page and Pinehurst than for the remainder of the site. Children in some portions of the residential community tend to exhibit mean blood lead responses to contaminated soils and dusts greater than the overall community mean. Children in Page and Pinehurst exhibit mean **soil/dust lead dose coefficients** that are approximately twice those observed in Smelterville, Kellogg, and Wardner. These higher soil/dust lead dose coefficients are typical of a more "common" response that has been observed at East Helena, Montana, and similar to the response described in version 4.0 of U.S. EPA's Integrated Uptake/Biokinetic (IUBK) Dose-Response Lead Model (LEAD4) using default input parameters. Site-specific factors that control physiologic response to environmental lead exposures and "effective" lead absorption are:

1. Site climate and meteorological conditions

2. Contaminated dust loadings

3. Form and chemical species of lead-contaminated solids (issues related to the relative proportions of ore, slag, tailings, concentrate, and lead oxide dusts that comprise contaminated solids)

4. Presence of other associated metals competing with lead absorption (physiologic absorption)

5. Total daily lead intake (lead absorption rate is dependent on intake rates; high daily intakes can result in lower GIT absorption coefficients)

6. General population socioeconomic and nutritional status

7. An effective exposure and health intervention program that potentially reduces total soil intake and subsequent absorption through awareness, hygiene, and nutrition programs

Those specific factors that could yield an increase in the total absorption of lead in Page and Pinehurst relative to the rest of the community are related to factors 3, 4, 5, and 7. Reduced lead absorption (in lower response areas) could be a result of proportionately higher levels of ore, slag, and tailings comprising contaminated solids in the flood plain of the South Fork of the Coeur d'Alene River. Considerably higher concentrations of lead and other metals are found in Smelterville, Kellogg, and Wardner soils and dusts, which yields a lower GIT (gastrointestinal tract) absorption rate for lead in the three towns. Also, less community health intervention has been practiced in Page and Pinehurst, while considerably more effort has gone towards exposure intervention and education in Smelterville, Kellogg, and Wardner, again yielding a lower uptake rate (either as soil/dust ingestion of lead absorption rate, or both) for lead in the three towns. Any one or all of these factors in combination would yield an apparent (relative) increase in the rate of lead uptake in Page and Pinehurst.

Observed differences in physiologic response to environmental lead exposures, quantified in terms of the soil/dust lead dose coefficient, between Smelterville/Kellogg/Wardner and Page/Pinehurst suggest that post-remedial physiologic response in Smelterville, Kellogg, and Wardner could approach the "common" response (as defined above). A reduction of total metals exposures and the cessation of the community Health Intervention Program in Smelterville, Kellogg, and Wardner could result in an increase in the soil/dust lead dose coefficient to those values observed in Page, Pinehurst, and East Helena (Montana).

Comment V.J.: "Re: Proposed Plan, p. 6: Sources of contamination to residential soil other than tailings and airborne smelter emissions are not addressed. Other possible sources are windblown deposition of dust from the mining-smelter complex; exhaust emissions from internal combustion engines; lead-based paint; lead piping and lead solder in water piping; and use of smelter slag, both as a traction agent and soil modifier."

Response: The administrative record, specifically the Protocol Document and RADER, have compared offsite background environmental contaminant levels for all exposure media to onsite levels. An evaluation of health risk associated with environmental contamination found onsite for seven metals of concern in various exposure media are summarized in Tables 7.22 through 7.26 of the Protocol Document. Chronic lead intakes, for example, are estimated to be 2.1 to 7.7 times greater onsite than for an offsite population. The RADER identifies those sources and mechanisms responsible for environmental media contamination in the residential areas. Exhaust emissions from internal combustion

engines, lead-based paint, lead piping, and lead solder in water piping are considered small contributors to the total lead uptake for members of the residential populations at the Bunker Hill site.

Comment V.K.: "Re: Proposed Plan, p. 5. The phrase "To ensure protection from adverse health effects associated with exposure to lead, EPA and IDHW has determined that it is necessary to clean up any residential property within the Bunker Hill site with a lead concentration of 1,000 parts per million.", seems to express an unjustified level of confidence that soil replacement will eliminate all blood lead problems, especially when the cause of the problems may not be fully defined."

Response: Remediation of contaminated soils in the residential areas of the site is one component of a comprehensive plan to reduce sensitive populations' exposure to metals. House dusts, fugitive dust sources, air, surface and ground water, materials and waste piles, etc. will also be addressed in the comprehensive plan. The agencies are confident that all contaminant sources and media of health significance have been characterized during RI activities and appropriate remediation will occur as part of the final plan. If the commenters believe that any exposure routes and/or media have been overlooked, they should have been identified during remedial investigations. Identification of additional concerns should be made at this time. Any media or transport processes that still require remediation following implementation of the final plan should be detected during followup site monitoring and health surveys.

Comment V.L.: "Re: Proposed Plan, p. 9. The difficulty and the prospect of serious structural damage under Alternative 6 is underemphasized. Considering the condition of many of the structures in the Superfund Site, removal of surrounding soil to a 7-inch depth could prove disastrous."

Response: Although it is feasible to remediate to a depth of 7 feet, the agencies agree that the difficulty and cost of such a program would be extreme. Therefore, Alternative 6 has not been selected. (The agencies believe the comment should have stated "7-foot" rather than "7-inch-depth".)

Comment V.M.: "Re: Proposed Plan, pp. 7 and 10: It should be emphasized that "garden areas" refers to vegetable and fruit gardens and not flower gardens.

Response: Comment noted. Garden areas are referred to as "produce gardens" in the Record of Decision for the Residential Soil Operable Unit.

EXHIBIT A: Comments on EPA's Proposed Cleanup Goals for the Populated Areas of the Bunker Hill Site

Responses to the comments presented in this exhibit have been addressed in the responses to Comment II.

EXHIBIT B: Residential Soil Sample Variations; Exhibit "B" of the document submitted by the PRPs during the public comment period discusses the differences between results obtained by IDHW/U.S. EPA, using a modified laboratory analytical technique for metals analysis, and a nonmodified technique, as used by a representative of the PRPs, American Energy and Environment (AEEE). The difference between the two techniques is that for the modified technique the sample is dried and then sieved through an 80-mesh screen. Only the portion passing the 80-mesh screen is analyzed. The nonmodified technique does not dry the sample and does not sieve the sample before analysis.

AEEE compared the 0- to 1-inch sample analysis results for samples collected in May 1991 using the two techniques. It was found that the modified technique had lead concentrations approximately 1.5 times higher than the nonmodified technique.

To further evaluate this difference, AEEE had nine samples analyzed that were taken from another sampling event, conducted by the PRPs, using both techniques. The results of these analyses did not indicate a bias between the techniques. AEEE concluded that the analytical techniques themselves (i.e., the sieving of the sample) were not responsible for the bias in the first set of data. It was assumed that the sample collection or sample preparation were responsible for the high bias of the modified technique that was employed by IDHW/U.S. EPA.

Several comments were provided by the PRPs as to the actual cause of the bias.

Comment 1: The samples were gathered by CH2M HILL and split in the field. The moisture content, soil consistency, and the technicians' splitting technique could all contribute to an uneven splitting of the solid sample.

Response: All soil samples collected in May 1991 were split in the field following the techniques specified in "*Field Sampling Plan (FSP) for the Phase II RI Sampling and Analysis Plan Bunker Hill CERCLA Site Populated Areas RI/FS Document No. BHPA-FSP89-F-RO-050489.*" The soil samples obtained in May 1991 were not overly wet, and adequate mixing was performed prior to splitting to ensure that the two portions of the sample were homogeneous.

It is also unclear how an unbiased sampling error (i.e., incomplete mixing or uneven splitting) would result in a biased analytical result (i.e., all of the IDHW/U.S. EPA samples being higher than the AEEE results).

Comment 2: [It was] noted on a visual inspection of the soil samples in the soil sample collection bags that there were some samples that had not been well mixed. (See Attachment C to Exhibit B.) This would make it more difficult to obtain a representative sample for digestion.

Response: All samples taken during May 1991 were completely broken up and composited as required in the previously referenced FSP. Based on the information contained in the comment, it is unclear what samples were observed.

Again, it is not clear how these actions, even if they were done, could lead to the biased results observed between the two analytical techniques.

Comment 3: The modified CLP788 procedure includes a drying step in which the sample is dried at 60 degrees C. overnight, and then screened through a -80 mesh screen. Variabilities could arise in this step due to differences in screening technique. [It was] noticed that two different technicians performing the screening step on similar soil samples resulted in very different final samples that would be used for analysis. One of the technician's meshing and screening step resulted in about 75 percent of the soil remaining in the plus 80 fraction that is archived and not analyzed, and the remaining 25 percent of the sample was then used for analysis. The other technician, by comparison, screened a similar sample and all of the soil went into the minus 80 fraction used for analysis.

Response: Eleven (11) AEEE samples containing the +80 fraction were selected at random and sieved through an 80 mesh screen. The mean of -80 remaining in these samples was 1.38 percent. The standard deviation of -80 remaining was 1.08 percent. At the 95 percent confidence interval, this equates to a maximum intersample variation of

2.16 percent. While not insignificant, these figures represent a relatively minor source of method intersample variation.

Comment 4: Variabilities could have arisen by cross contamination. The screening process included a cleaning step in which the screen [i]s cleaned by blowing compressed air over it. It was noted that the technician used inconsistent and careless cleaning in this step.

Response: Considering the volume of sample containing most AEEE samples and the high lead concentrations in these samples, any cross contamination due to micron-size particles (i.e., dust) being left on the screen after blowing off with high pressure air would be unmeasurable or insignificant at best.

Comment 5: There was a possibility of cross contamination in the digestion procedure also. It was observed that in bulking the samples to their final 200 ml volume, the same graduated cylinder was used without careful rinsing between samples.

Response: Silver Valley Laboratories' (SVL) procedure is to rinse graduated cylinders three (3) times with deionized water between samples during the digestate bulking process. This procedure was followed for the AEEE samples.

Comment 6: The possibility of error also exists in the data generation. In the reporting of the data there is a step that incorporates a percent solids test to correct for the moisture fraction found in the soils that have not been dried. This percent solids value was calculated in the standard CLP788 method utilized by AEEE. It was noted that this test was also applied to the IDHW/EPA modified CLP788 method. If inadvertently the percent solids were used to calculated the final results of the IDHW/EPA samples it would lead to an error comparable to what [is] seen in Table 1, columns 3 and 4.

Response: Four IDHW data packages selected at random were reviewed. The modified CLP method followed by SVL for the IDHW did not include a percent solids adjustment of the final results. Samples were dried and sieved before analysis; therefore, no percent solids correction was necessary.

Summary Comment: Based on these results, EPA should evaluate variability in data from their past and current sample collection and analysis procedures. Based on their reevaluation, EPA/IDHW may wish to reanalyze some or all yards.

Response: The agencies believe that the above responses adequately address any concerns regarding data variability and there is no need to reevaluate the data base or reanalyze some or all yard samples.

EXHIBIT C: Review of EPA Study on Upward Movement of Lead in Yard Soils; "The conclusions in Appendix B (of the Residential Soil Feasibility Study) clearly state that there is little empirical evidence to suggest that upward migration of lead is occurring on site in residential soil. ...there are compelling hydrologic and chemical precepts that indicate that such upward migration is not expected to be a significant process in the past, present or future. Consequently, we see no utility or justification for the specification of a capillarity barrier for yard remediation."

Response: The CERCLA process requires that the agencies "select a remedial action that is protective of human health and the environment, that is cost-effective, and that utilizes *permanent solutions*" (emphasis added) "and alternative treatment technologies or

resource recovery technologies to the maximum extent practicable."[1] Upward migration of inorganics is a documented phenomenon and, therefore, a potential migration pathway that, if not evaluated and considered, could adversely affect the permanence of the selected remedial alternative.

Appendix B of the Residential Soils Focused Feasibility Study is a worst-case evaluation of the potential for upward migration. The conclusions of the appendix agree with the basic comment above in that "there is no empirical evidence to suggest that lead upward migration is occurring onsite in residential soils."

SUMMARY OF SPECIFIC COMMENTS

Comment 1: "The modeling approach does not consider the effects of recharge, which would transport water downward... Additionally, the author [of the upward migration technical memorandum] cites the occurrence of caliche layers as evidence of upward flow from a shallow water table. We did not find any notation of caliche layers in the RI/FS boring logs."

Response: Indeed the modeling approach does not consider the effects of recharge. This provides a more conservative estimate of the potential for upward migration of contaminants. The summary section of the appendix explains that "the objective was to perform a worst-case analysis using a simplified model."

The introductory sentence of the technical memorandum states that the existence of "caliche" or "hardpan" layers are evidence of the upward flow of inorganic constituents through the soil profile. This introductory sentence presents the idea of upward migration to the reader who may not be familiar with soil chemistry. It is presumed that caliche or hardpan layers are a familiar occurrence to most readers of the document. The absence of these layers does not dismiss the occurrence of the phenomenon. The memorandum does not state that there are caliche or hardpan layers at the Bunker Hill Superfund site.

Comment 2: "The stratigraphy between ground surface and the water table is known to be heterogeneous, not homogeneous as assumed in the report. Stratified layers... represent textural discontinuities that would have profound influence on the vertical migration of soil water."

Comment 3: "The modeling process considers only evaporation not evapotranspiration. ...the assumption that solutes will accumulate only in the upper 1 inch as a result of evaporation is unfounded."

Comment 4: "The range of pH values assumed for ground water are about one pH unit lower than the actual range typically measured in water from the RI/FS wells. The system is not as acidic as assumed, which affects the speciation and mobility of lead.

Comment 5: "...the modeling assumption that concentrations in soil water are equal to the observed concentrations in ground water has not been honored."

Comment 6: "The correlation of soil water Pb concentrations to distribution coefficients and measured soil Pb concentrations probably does not accurately represent a soil water system with significant Pb

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[1]Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Section 121(b)(1).

controls exerted by precipitation of sparingly soluble Pb compounds.... ...will probably overestimate the aqueous lead in the subsurface."

Comment 7: "The rates of lead accumulation in the surficial soils depicted in Figures 4, 5, and 6 [from the upward migration technical memorandum] assume that the lead concentrations in soil water are accurate and that all of the dissolved lead will migrate to the upper one inch of soil.... ...such assumptions are not valid...."

Response to Comments 2 through 7: Each of these comments concerns the validity of the assumptions made for modeling the upward migration of lead in residential soil. The assumptions were made to produce a worst-case estimate of the upward migration of contaminants to the upper one inch of soil. The memorandum clearly states these assumptions and indicates that this is a simplified modeling effort based on worst-case assumptions.

EXHIBIT D: Depth of Contamination in Residential Yards, Bunker Hill Superfund Site; "This alternative [Alternative 3] is internally inconsistent because lead contamination does not exist to depths of at least 12 inches in all residential areas. Chemical data documenting the decrease in concentration of contaminants with depth include two different sets of data collected by the PRPs during 1990."

"A core sampling program could determine the vertical profile of lead concentration, and allow the remediation effort at an individual residence to concern only those soil intervals that threaten human health."

Response: The agencies agree that a core sampling program could determine the vertical profile of lead concentration and a sampling program is being required as part of this ROD. As stated earlier, if contamination above the threshold level does not exist below 6 inches, a 6-inch excavation will be acceptable.

3.3 SUMMARY OF INSTITUTIONAL CONTROLS MEETINGS

The purpose of this section of the Responsiveness Summary is to describe local government and community involvement in the development of the Institutional Controls Program (ICP) and to respond to comments raised by local officials during the comment period.

The agencies understand that the success of an ICP is dependent on the communities' and local governments' involvement and support. Development of the ICP occurred over a 4-year period. Information was gathered and concerns were defined through many meetings, presentations, and discussions with local government and citizen representatives. Comments and concerns associated with an ICP were solicited both before and after the report entitled *An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site* was completed.

3.3.1 MEETINGS HELD PRIOR TO REPORT COMPLETION

During development of the ICP report, the agencies met with the Task Force (public meeting), local government officials (both elected and appointed representatives of affected cities and the county), and other interested groups. Comments received during these discussions were particularly important in determining the scope of a locally acceptable ICP.

The preevaluation meetings focused on conceptual development of an ICP that could operate within the context of current authorities. In general, the response was favorable with the following provisions:

1. Institutional controls should minimize inconvenience and loss of land use options to local governments and residents.

2. Institutional controls should use, to the maximum extent practicable, existing control mechanisms and local agencies.

3. Institutional controls should be self-sustaining and impose no additional cost on local governments, residents, or property owners.

These concerns were used as guidelines in producing the *Draft Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site.*

3.3.2 MEETINGS HELD AFTER REPORT COMPLETION

The evaluation document was completed in January 1991 and mailed to elected officials in all the cities within the Superfund site as well as Shoshone County. It was also available for public comment from April 29 through June 30, 1991, and was described as part of the Proposed Plan. Following the mailing, meetings were held in March through May 1991 to discuss the document with elected officials from the cities and county, the Task Force (public meeting), and other interested or potentially affected parties. Concerns and questions noted at those meetings and the agencies' responses follow. Comments and responses have been organized by subject for clarity.

IMPLEMENTATION/MANAGEMENT

Comment: One commenter was concerned about being sure everyone who needed to, adhered to program requirements.

Response: The ICP will be presented in a positive manner, to be used by the homeowner during land transactions. A high level of community awareness and education will be maintained and, if all else fails, the penalties associated with breaking local laws and ordinances would be invoked.

Comment: Another commenter requested that proposed deed notices serve as an educational tool and not as a restriction to land use.

Response: Deed notices are intended to notify potential purchasers of real estate about the condition of the property being considered. It is not anticipated that these notices will restrict land use; rather, they are informational in nature.

Comment: A commenter from Pinehurst wanted to know if the ICP was going to be instituted in Pinehurst.

Response: Some or all of the ICP elements will be utilized in Pinehurst depending upon the extent of remediation and the amount of contamination that remains in yards after the cleanup has been completed.

Comment: Several commenters representing the various cities were not interested in providing project management and emphasized that the cities do not have the funds to ensure perpetual management of an ICP.

Response: The agencies have considered this comment and do not anticipate that the cities will be required to fund or manage the program in perpetuity. Funding for the program as well as the management of the program will be determined as part of the design of this remedial action.

Comment: When would the cities be asked to "sign-on" to the program?

Response: Development of the ICP has followed the public comment period on the proposed plan. The cities will be asked to "sign-on" prior to initiation of remedial design for the residential soils action.

Comment: The City of Wardner is currently rewriting its comprehensive plan and zoning ordinances and wanted to know if they needed to factor in the proposed ICP.

Response: It is suggested that the city stay in contact with the agencies developing the ICP in order to incorporate as much information from the ICP as possible. It was also noted that if portions of the ICP developed at a later date would require amendments to city plans, assistance would be provided.

Comment: How enforceable is the ICP?

Response: The ICP is expected to be incorporated into city and county ordinances and regulations that have the weight of law.

Comment: What would be done with partially remediated yards?

Response: There will be no partially remediated yards. If sampling and analysis indicates soil concentrations exceeding 1,000 ppm lead, the entire yard will be remediated.

Comment: What would be required of a homeowner whose paved/driveway deteriorated to the point that it would need to be replaced?

Response: The homeowner would have a variety of options under the proposed ICP. Included in those options would be repaving or replacement and capping if soil lead levels warranted it.

Comment: Would the ICP be in conflict with Federal Flood Plain Ordinances?

Response: The ICP and Flood Plain Ordinances will not be in conflict.

PUBLIC INVOLVEMENT

Comment: One commenter wanted to know what would happen if, after the ICP was designed and approved by local elected officials, the public did not like it.

Response: The plan was subject to public comment for 60 days. The agencies did not receive adverse comments from members of the community. The concerns raised during the comment period came primarily from the PRPs (see Section II of the Responsiveness Summary). Ongoing public education regarding the institutional controls program is integral to the program's success.

Comment: Why should Pinehurst have to participate in the ICP?

Response: The ICP is needed in Pinehurst to ensure barrier maintenance. The ICP will apply to all residential properties within the site.

COST/FUNDING

Comment: One commenter requested additional information on the cost of administering the ICP.

Response: The cost estimates for the ICP are included in both *An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site* and the *Residential Soil Feasibility Study.*

Comment: How will the ICP be funded?

Response: Funding of the ICP will be determined during remedial design.

DEVELOPMENT/DISTURBANCES

Comment: One commenter wanted to know if realtors should be "digging in" sales signs.

Response: It was suggested that for now, small signs that negate the need for deep holes should be used.

Comment: Using the ICP to facilitate land transactions and future development made the program worthwhile.

Response: Comment noted.

Comment: How would someone go about developing a lot? And, if soil testing was necessary, who would pay for it?

Response: There are currently no special Superfund requirements for property development, but anyone wishing to begin a project should contact the Kellogg Superfund Project Office for information. Mechanisms for addressing property development with respect to contamination outside the residential areas will be addressed in the Non-populated Areas RI/FS.

Comment: What would be done for homeowners wanting to put in a vegetable garden?

Response: People wishing to grow produce gardens should do so in 24 inches of clean soil. For those homes exceeding the threshold level and requiring remediation, 24 inches of clean material will be provided during cleanup. For others whose yards are not cleaned up, clean soil will be made available for developing produce garden areas.

PERMITS

Comment: One commenter wanted to know if homeowners would be charged for permits associated with the ICP.

Response: Funding mechanisms for the program will be determined as part of the design of the remedial action, but it is anticipated that homeowners will not be required to pay for permits.

Comment: Where would a homeowner go to obtain a permit to dig? Could they be obtained over the phone?

Response: While the complete program has not been developed, permits would most likely be available at each city hall through an existing governmental department such as the Building Department or the Department of Public Works. Permit availability will be determined in remedial design.

Comment: The ICP appeared to be fairly aggressive in requiring permits and managing barriers and, as proposed, it provides a complete approach to the challenge of managing barriers and future development.

Response: Comment noted.

Comment: Another concern was in regard to how the decision will be made as to what is hazardous and what soil cleanup level would be used.

Response: A soil lead concentration of 1,000 ppm is the threshold level for cleanup of residential surficial soils. Procedures for determining soil concentrations below clean barriers will be developed during remedial design.

Comment: How did Pinehurst end up in the Superfund site, if no elevated blood lead levels were noted in Pinehurst children? What were the soil lead levels in Pinehurst?

Response: Sampling and analysis indicate some soil lead levels throughout the city exceed the threshold level of 1,000 ppm lead and approximately 30 percent of the children tested have blood lead concentrations greater than 10 μg/dl. Soil lead concentrations varied between approximately 60 and 8,000 ppm with an average of 460 ppm.

Comment: Has any thought been given to controlling movement of metals up or down through the soil column?

Response: Yes, a discussion of this issue is presented as part of the feasibility study for residential soil. It was determined that the probability of this mechanism affecting remediation at this site is very low.

Comment: What is a barrier and will different types of barriers be used at the Bunker site?

Response: In general, a barrier is a physical cap or layer of materials that prevents exposure of people to contaminants beneath the barrier. Different types of barriers may be used at the site, depending on differing land uses. The barrier required for residential soil is determined in this ROD. The specific type of barriers required for other types of land use will be determined as part of other cleanup decisions.

Comment: Are institutional controls being considered at other Superfund sites?

Response: Yes, institutional controls are being considered at other Superfund sites both for residential and other uses.

Table 2
Public Meetings Summary
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description (Subjects Discussed)
May 23, 1991	Proposed Plan: Residential Soils Cleanup Public Comment Meeting Other Sitewide Activities
February 21, 1991	Status Report on Residential Soil Feasibility Study Institutional Controls Program Status of PRP Sitewide Cleanup Proposal
October 25, 1990	Update on Hillside Revegetation Order Results of 1990 Blood Lead Screening Risk Assessment Data Evaluation Report Summary and Conclusion Agency for Toxic Substance and Disease Registry (ATSDR) Response to Task Force/IDHW Questions on Lead Health Issues
July 19, 1990	Risk Assessment Data Evaluation Report Smelter Order/Plans Fugitive Dust Event Air Monitors Update on 1990 Residential Soil Removal Program ATSDR Answers to Task Force Health Questions 1990 Blood Lead Screening Program
April 12, 1990	Negotiations with PRPs Smelter Complex/Unilateral Order Page Pond/Residential Soil Disposal 1990 Residential Soil Removal Homeowner Meetings Contractor Workshops Emergency Removal vs. Remedial Interior House Dust Update on 1989 Blood Lead Screening
November 16, 1989	Status Report on Bunker Complex U.S. EPA Order Buried Waste Status Report on 1989 Residential Soil Removal Report on August 1989 Lead Screening Update on Interior House Dust Miscellaneous Topics U.S. EPA/IDHW--PRP Negotiations Slag December Fact Sheet Technical Assistance Grant
August 24, 1989	Update on Negotiations Status Report on Soil Removal Project Discussion of Slag Issue Update on Fugitive Dust Status Report on August Lead Screening
May 18, 1989	Discussion of Community Comments on Proposed Removal Activities Update on 1989 Summer Removal Action

Table 2
Public Meetings Summary
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description (Subjects Discussed)
February 16, 1989	Status on Negotiations with Gulf Resources & Chemical Corporation Update on Activities on Non-populated Areas of the Site Update on Health Issues Summer 1989 Cleanup Plans for Cleanup Schedules
December 15, 1988	Update on Populated Remedial Investigations Update on Non-populated Remedial Investigation Negotiations with Gulf Resources & Chemical Corporation Status of 1989 Removal Plans
October 19, 1988	Why Do We Need a Cleanup Health Risk Summary: 1988 Health Intervention Program Getting to Cleanup Homeowners Letter Explanation of Letter Maps Summer 1989 Cleanup Selecting Properties Cleanup Alternatives
September 8, 1988	Continued Discussion of Health Issues Introduction to Risk Assessment Pathways Health Criteria Cleanup Limits
July 28, 1988	Overview of Historic Lead Health Issues Environmental Toxicology Health Effects of Local Contaminants 1988 Summer Lead Screening
June 30, 1988	IDHW Final RI/FS Work Plan (Populated Areas) 1988 Summer Sampling Events Status on Previous Sampling and Analysis U.S. EPA Status on Gulf RI/FS Oversight Status on Gulf Focused Feasibility Studies Status on Gulf FOIA Request Gulf/Pintlar Status on RI/FS Activities on Non-populated Areas Technical Assistance Grant Update Introduction to U.S. EPA Health Risk Assessment Process Endangerment Assessment Approach to Phased Cleanup

Table 2
Public Meetings Summary
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description (Subjects Discussed)
May 12, 1988	Introduction: Activities in the Past 6 Months Project Overview Project Status Gulf/Pintlar U.S. EPA IDHW Introduction to Endangerment Upcoming Activities
December 10, 1987	Populated Areas Progress in 1987 Future Activities Non-populated Areas Progress Status Update of Gulf Activities Oversight Activities Contractor Transition Feasibility Studies Future Activities
August 13, 1987	Upcoming Non-populated Areas--RI/FS Field Activities 1986-87 Residential Soil Sampling Results Review Outline for RI/FS Work Plan for Populated Areas
June 18, 1987	Status of U.S. EPA Activities Gulf Resources Involvement Field Activities in Non-populated Areas U.S. EPA Oversight Status of State of Idaho Activities Progress to Date Project Plan Silver Valley Laboratories
April 16, 1987	RI/FS in Non-populated Areas Gulf Resources Involvement Work Plan Proposed Consent Order Schedule Windblown Dust State Activities U.S. EPA Activities Schedule RI/FS Study in Populated Areas
March 9, 1987	Status of Gulf Involvement in RI/FS Activities Status of IDHW Activities Contractor Selection Cooperative Agreement Silver Valley Laboratories Proposed Consent Order with Gulf

Table 2
Public Meetings Summary
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description (Subjects Discussed)
February 5, 1987	Orientation of Work Plan to Potential Remedies Schedule Tasks 1 through 10, Feasibility Study, and Proposal
December 11, 1986	Reauthorization/Superfund Site Characterization Report Gulf Involvement in RI/FS Fall Sampling Activities Residential Soil Sampling Windblown Dust Monitoring Program Project Schedule Short-Term Remedies RI/FS
September 18, 1986	Update on 1986 Blood Lead Screening Status Report on Residential Soil Sampling Status Report on Fugitive Dust Monitoring Program RI/FS Status Schedule Reauthorization of Superfund Involvement of Gulf Resources Site Characterization Report
August 7, 1986	Status Report of Blood Lead Screening Fast-Track Summary Summary of Changes and Additions to Site Characterization Report Project Organization Overview Residential Property Windblown Dust
May 29, 1986	Interim Remedial Measures Update Construction RI/FS Project Status Update Site Characterization Report Fugitive Dust Monitoring Soils Verification Work Plan

Table 2
Public Meetings Summary
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description (Subjects Discussed)
April 10, 1986	Interim Remedial Measures Update Public Comment Contract with Local Officials Contractual-Administrative Update Contracts with Gulf Selected Actions Schedule for Interim Remedial Measures Implementation State Activities U.S. EPA Activities RI/FS Project Status Superfund Reauthorization Site Characterization Report Status Recontamination--Surface/Subsurface
March 20, 1986	Interim Remedial Measures Update State Natural Resource Suit
February 13, 1986	Interim Remedial Measures Update Interim Remedial Measures Recommendations--Workshop
January 9, 1986	Status Report of Lead Health Project Results of 1985 Blood Lead Screening Winter Screening Status Report on Public Interim Remedial Measure Sites Engineering Alternatives Remedial Costs for Representative Sites Update of State's Natural Resource Suit Bunker Hill Complex Issues
December 5, 1985	Status Report on Site Tour Status Report on Site Characterization Report
October 24, 1985	Status Report on Blood Lead Sampling Site Characterization Report Status of Site Visit Comments Received on Site Characterization Report Schedule for Completion of Site Characterization Report Fast-Track--Interim Remedial Measures Update Status Report Ranking Process--Public Sites Potential Remedies Schedule for Proceeding

Table 2
Public Meetings Summary
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description (Subjects Discussed)
September 19, 1985	Status Report on Blood Lead Screening Status Report on Fast-Track Program Review of Sampling Locations Sampling Results Future Activities Site Characterization Report Purpose and Use of Site Characterization Report Overview of Site Characterization Report Where Site Characterization Report Fits in Cleanup Process Summary of Conclusions Additional Data Requirements
August 1, 1985	Status Report on Health Screening Revised Community Relations Plan Areas of Task Force Involvement Community Relations Update on Status of Consent Requests Status Report on Site Characterization Status Report on Soils Characterization Update on Fast-Track Program
June 27, 1985	Status Report of Data Review System Overview Organizations Visited Information Available to Date Information Exchange Lead Health Issue Historical Overview Emissions and Air Monitoring Data Overview of 1974 Lead Health Survey Overview of 1983 Lead Health Survey Current Status of Lead Health Program Status Report on Soils Characterization Fast-Track Sampling Program Overview of Fast-Track Program Status Report on Sampling Program Future Fast-Track Activities and Needs Overview of Community Relations Plan
May 16, 1985	Superfund Overview Cooperative Agreement Elements of the Investigation PRPs/Liability Technical/Remedial Activities Health and Interim Remedial Actions Community Relations Innovative Solutions Roles and Responsibilities of Task Force

Table 3
Fact Sheets and Other Information Distributed Door to Door
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description
August 12, 1991	Superfund Progress Report. Bunker Hill--Hillsides Project
April 26, 1991	The Proposed Plan for Cleanup of the Residential Soils Within the Bunker Hill Superfund Site
February 28, 1991	Project Update; Bunker Hill Superfund Site, Shoshone County, Idaho
January 18, 1991	Bunker Hill Superfund Project, Kellogg, Idaho; Summary of 1990 Accomplishments
October 25, 1990	Summary of Findings Risk Assessment/Data Evaluation Report (RADER) Populated Areas
October 2, 1990	Bunker Hill Superfund Site, Kellogg, Idaho; Hillside Stabilization and Revegetation Order Signed
September 1990	The Superfund Process at Bunker Hill
July 24, 1990	Superfund Fact Sheet; Bunker Hill Superfund Site, Kellogg, Idaho
July 11, 1990	Bunker Hill Superfund Site, Kellogg, Idaho; Invitation to Superfund Task Force Meeting (July 19)
April 9, 1990	Bunker Hill Superfund Site, Kellogg, Idaho; Invitation to Superfund Task Force Meeting (April 12)
March 19, 1990	Bunker Hill Superfund Site Project Update, Kellogg, Idaho; Proposed Page Pond Landfill
February 26, 1990	Bunker Hill Superfund Site Fact Sheet, Kellogg, Idaho
December 1989	Bunker Hill Superfund Site Fact Sheet, Kellogg, Idaho
September 1989	Bunker Hill 1989 Residential Soil Removal Action Cost Summary through 9/29/89
March 1989	Panhandle Health District 1: Notice
September 1988	Bunker Hill Superfund Fact Sheet
July 1988	Bunker Hill Superfund Project Update
February 26, 1988	Letter to Silver Valley Task Force chairman concerning how U.S. EPA and IDHW will proceed with the RI/FS process
December 1987	Bunker Hill Superfund Project Progress Update
August 11, 1987	Letter to Interested Parties regarding Remedial Investigation/Feasibility Studies--Bunker Hill Superfund Site
June 1987	Memo to Silver Valley Bunker Hill Superfund Task Force
May 1987	Status Report: Bunker Hill Superfund Project
March 1987	Bunker Hill Superfund Site Update

Table 3
Fact Sheets and Other Information Distributed Door to Door
Residential Soils Operable Unit
Bunker Hill Superfund Site

Date	Description
January 1987	Fact Sheet: The Bunker Hill Superfund Site Process
July 1986	Memo to Silver Valley Superfund Task Force regarding Silver Valley Superfund Project

GLOSSARY AND LIST OF ACRONYMS AND ABBREVIATIONS

GLOSSARY

Acceptable Daily Intake. The amount of toxicant, in ppm body weight/day, that will not cause adverse effects after chronic exposure to the general human population.

Acceptable Intake for Chronic Exposure. The highest human intake of a chemical, expressed as ppm/day, that does not cause adverse effects when exposure is long term (lifetime). The AIC is usually based on chronic animal studies.

Acceptable Intake for Subchronic Exposure. The highest human intake of a chemical, expressed ppm/day, that does not cause adverse effects when exposure is short term (but not acute). The AIS is usually based on subchronic animal studies.

Ambient. Environmental or surrounding conditions.

ARARs. Applicable or Relevant and Appropriate Requirements.

Background Exposure. Exposure under conditions offsite and in unimpacted areas.

Baseline Exposure. Exposure under onsite conditions with no remediation (no-action scenario.)

Cancer. A disease characterized by the rapid and uncontrolled growth of aberrant cells into malignant tumors.

Carcinogen. A chemical that causes or induces cancer.

Chronic. Occurring over a long period of time, either continuously or intermittently; used to describe ongoing exposures and effects that develop only after a long exposure.

Chronic Daily Intake. The projected human intake of a chemical averaged over a long time period, up to 70 years, and expressed as ppm/day. The CDI is calculated by multiplying long-term by the concentration human intake factor, and it is used for chronic risk characterization.

Chronic Exposure. Long-term, low-level exposure to a toxic chemical.

Concomitant. To accompany or to be concurrent.

Dermal Exposure. Contact between a chemical and the skin.

Dermal. Of the skin; through or by the skin.

Dose-Response Assessment. The second step in the toxicity assessment process that involves defining the relationship between the exposure level (dose) of a chemical and the incidence of the adverse effect (response) in the exposed populations.

Dust. Airborne solid particles, generated by physical processes such as handling, crushing, grinding of solids, ranging in size from 0.1 to 25 microns.

Endangerment Assessment. A site-specific assessment of the actual or potential danger to public health, welfare, or the environment from the threatened or actual release of a hazardous substance or waste from a site. The endangerment assessment document is prepared in support of an enforcement action under CERCLA or RCRA.

Environmental Fate. The destiny of a chemical after release to the environment; involves considerations such as transport through air, soil and water, bioconcentration, degradation, etc.

Etiologic Agent. An agent responsible for causing disease.

Exposure Assessment. One of the components of the endangerment assessment process. The exposure assessment is a four-step process to identify actual or potential routes of exposure, characterize populations exposed, and determine the extent of the exposure.

Exposure Scenario. A set of conditions or assumptions about sources, exposure pathways, concentrations of toxic chemicals, and populations (numbers, characteristics and habits) that aid the investigator in evaluating and quantifying exposure in a given situation.

Fugitive Releases. Emissions that occur as a result of normal plant operations due to thermal and mechanical stress. Fugitive dusts may result from vehicle reentrainment, soil movement by earth-moving equipment, or wind erosion of contaminated surfaces.

Hazardous Waste. Hazardous waste, as defined in Title 40 of the Code of Federal Regulations, is a legal rather than a scientific term. To be considered hazardous, a waste must be on the list of specific hazardous waste streams or chemicals, or it must exhibit one or more of certain specific characteristics including ignitability, corrosivity, reactivity, and toxicity. The definition excludes household waste, agricultural waste returned to the soil, and mining overburden returned to the mine site. It also excludes all wastewater discharged directly or indirectly to surface waters.

High-Risk Child. Those children possessing several of the following risk co-factors observed to influence blood lead levels. Soil/dust ingestion rates are 90 to 100 mg/day for this group. Associated risk co-factors for classification are: a) chewing of fingernails and mouthing of objects; b) nonvegetated or uncovered outdoor play area; c) poor quality housekeeping or high indoor dust levels; d) lack of dietary vitamin supplements; e) smoking parent in home; f) <$10,000 per year home income; and g) parents possess less than a secondary level of education.

Low-Level Threat Wastes. Those source materials that generally can be reliably managed with little likelihood of migration and that present a low risk in the event of exposure. They include source materials that exhibit low mobility in the environment or are above protective levels but are not considered to be significantly above protective levels for toxic compounds.

Mean. A statistical estimate of central tendency. Two different means are employed here: arithmetic mean and geometric mean. Arithmetic means approximate data centroids when data is normally distributed. Geometric means approximate data centroids when data is log-normally distributed. Arithmetic Mean $\geq$ Geometric Mean for the same data population.

National Market Basket Variety Produce. Vegetable, fruit, and meat produce distributed nationally and available on supermarket shelves, which constitutes the source of food for the average consumer.

Pathway. A history of the flow of a pollutant from source to receptor, including qualitative descriptions of emission type, transport, medium, and exposure route.

Pica. Refers to both normal mouthing and subsequent ingestion of nonfood items, which is quite common among children at certain ages, and the unnatural craving for and habitual ingestion of nonfood items. The latter is an uncommon condition that is generally associated with medical conditions such as malnutrition, certain neurobehavioral disorders, and iron deficiency anemia or, less often, with a particular cultural background.

Plume. Term used to describe the distribution of contaminants.

Population at Risk. A population subgroup that is more likely to be exposed to a chemical, or is more sensitive to a chemical, than is the general population.

Principal Threat Wastes. Those source materials considered to be highly toxic or highly mobile that generally cannot be reliably controlled and that present a significant risk to human health or the environment. They include liquids, highly mobile materials (e.g., solvents), or high concentrations of toxic compounds.

Risk Assessment. A qualitative or quantitative evaluation of the environmental and/or health risk resulting from exposure to a chemical or physical agent (pollutant); combines exposure assessment results with toxicity assessment results to estimate risk.

Risk Characterization. The final component of the endangerment assessment process that integrates all of the information developed during the exposure and toxicity assessments to yield a complete characterization of the actual or potential risk at a site.

Route of Exposure. The avenue by which a chemical comes into contact with an organisms (e.g., inhalation, ingestion, dermal contact, injection).

Scenario. A set of assumptions describing how exposure takes place. Scenarios are usually constructed in the "Integrated Exposure Analysis" section of an exposure assessment and are usually specific to an exposure setting.

Standard Deviation. A statistical estimate of variability associated with a data population. One standard deviation surrounding the mean includes 68 percent of the data population, and two standard deviations surrounding a mean includes 95 percent of the population.

Subchronic. Of intermediate duration, usually used to describe studies or levels of exposure between 10 and 90 days.

Subchronic Daily Intake. The projected human intake of a chemical averaged over a short time period, expressed as ppm/day. The SDI is calculated by multiplying the short-term concentration by the human intake factor, and it is used for subchronic risk characterization.

Toxicity Assessment. One of the components of the endangerment assessment process, the toxicity assessment is a two-step process to determine the nature and extent of health and environmental hazards associated with exposure to contaminants of concern present at the site. It consists of toxicological evaluations and dose-response assessments for contaminants of concern.

ACRONYMS AND ABBREVIATIONS

Ag	Silver
AIC	Acceptable Intake for Chronic Exposure
ARAR	Applicable or Relevant and Appropriate Requirement
As	Arsenic
ATSDR	Agency for Toxic Substances and Disease Registry
B1-Pb	Blood Lead Level; also as Pb-B
Ca	Calcium
Cd	Cadmium
CDC	Centers for Disease Control
CDI	Chronic Daily Intake
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CIA	Central Impoundment Area
Co	Cobalt
CPF	Cancer Potency Factor
Cr	Chromium
CTV	Critical Toxicity Value
Cu	Copper
DI	Daily Intake
EA	Endangerment Assessment
EECA	Engineering Evaluation and Cost Analysis
EEPC	Engineering Evaluation for Phased Cleanup
EP	Erythrocyte Protoporphyrin
EPTox	Extraction Procedure Toxicity
FDA	U.S. Food and Drug Administration
Fe	Iron
GRC	Gulf Resources & Chemical Corporation
HAD	Health Assessment Document
HEA	Health Effects Assessment
HIF	Human Intake Factor
IDAPA	Idaho Administrative Procedure Act
IDHW	Idaho Department of Health and Welfare
IRIS	Integrated Risk Information System
K	Potassium
Mg	Magnesium
Mn	Manganese
µg/dl	Micrograms per deciliter
$\mu g/m^3$	Micrograms per cubic meter
Na	Sodium
NCP	National Contingency Plan
NHANES	National Health and Nutrition Examination Survey
Ni	Nickel
NPL	National Priority List
OSHA	U.S. Occupational Safety and Health Administration
OSWER	Office of Solid Waste and Emergency Response
Pb	Lead
Pb-B	Blood Lead Level
PHD	Panhandle Health District
PD	Protocol Document=Human Health Risk Assessment Protocol for the Populated Areas of the Bunker Hill Superfund Site (produced by Jacobs Engineering et al., 1989)

ppb	Parts per billion
ppm	Parts per million = μg/gm = mg/kg
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery act
RfD	Reference Dose
RI/FS	Remedial Investigation/Feasibility Study
RME	Reasonable Maximum Exposure
ROD	Record of Decision
Sb	Antimony
Se	Selenium
SFCDR	South Fork of the Coeur d'Alene River
SPHEM	Superfund Public Health Evaluation Manual
TBC	To-Be-Considered
TCLP	Toxicity Characteristic Leaching Procedure
Tl	Thallium
TLV-TWA	Threshold Limit Values--Time-Weighted Average
TSCA	Toxic Substance Control Act
TSD	Treatment, Storage and Disposal Facility
U.S. EPA	U.S. Environmental Protection Agency
V	Vanadium
Zn	Zinc

ADMINISTRATIVE RECORD INDEX

FOR THE

RECORD OF DECISION

Bunker Hill Mining and Metallurgical Complex
Residential Soils Operable Unit
Shoshone County, Idaho

August 1991

ADMINISTRATIVE RECORD FILE FOR RESIDENTIAL SOIL

This Administrative Record supports the remedial decision for residential soil at the Bunker Hill Superfund Site. The documents contained in this record form the basis for the remedial decision to clean up residential soil. The decision is presented in a report entitled the Record of Decision (ROD).

The following Administrative Records are considered part of this administrative record file:

Bunker Hill Residential Soils Removal
Bunker Hill Fast Track Removal

Sampling and testing data and sample Chains of Custody are located at the offices of the Hazardous Materials Bureau, 1410 N Hilton, Boise, Idaho 83706. Confidential information is also on file at the above listed Boise address. Confidential documents are coded in the index with a "Y" in the confidential field of each document description.

EPA guidance documents that provide information about how the Superfund process works are available at the EPA Region 10 office, 1200 6th Ave., Seattle, Washington 98101.

Data quality review reports are presented for sampling events that were not summarized in data summary reports (DSRs). These DSRs contain summaries of the data quality reviews performed for particular sampling events.

To find correspondence relating to specific topics, look in the correspondence file within the major section where the topic of concern is located. All correspondence is located in these files. Also in these files is a chronological listing of these documents.

Bunker Hill Superfund Project
RESIDENTIAL SOILS ADMINISTRATIVE RECORD

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Bunker Hill Superfund Project
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Bunker Hill Superfund Project
RESIDENTIAL SOILS ADMINISTRATIVE RECORD

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DOCUMENT GROUP: 0.0

Document No.: 0.00 001 10/31/90 **Pages:** 120 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *Residential Soils Administrative Record Document Index*

Document No.: 0.00 002 10/31/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *Residential Soils Administrative Record Table of Contents*

Total Documents In Group: 2

DOCUMENT GROUP: 1.0

Document No.: 1.01 001 08/26/85 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Wayne Grotheer, Bruce Appel / EPA, WWC
Title: *Letter commenting on draft Interim Site Characterization Report*

Document No.: 1.01 002 09/19/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Walton Low / USGS
To / Orgnztn: Chief, Hydrological Studies / USGS
Title: *Letter commenting on draft Interim Site Characterization Report*

Document No.: 1.01 003 10/03/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Michael Weiss / Former BHC Employee
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter commenting on draft Interim Site Characterization Report*

Document No.: 1.01 004 10/11/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: R.M. Dugdale / North Moccasin Mine
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter commenting on the draft Interim Site Characterization Report*

Document No.: 1.01 005 10/18/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Garth Crosby / Geological Engineer
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Letter commenting on the draft Interim Site Characterization Report*

Document No.: 1.01 006 10/28/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: T.R. Webster / Dept. of Health and Human Sv
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter commenting on Interim Site Characterization Report*

Document No.: 1.01 008 12/20/85 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Polityka / Dept. of Interior
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter commenting on draft Interim Site Characterization Report*

Document No.: 1.01 009 01/02/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: John Stocks / Idaho Fair Share
To / Orgnztn: Brad Harr / IDHW
Title: *Letter commenting on draft Interim Site Characterization Report and Community Relations Plan*

Document No.: 1.01 011 07/25/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Brad Harr / IDHW
To / Orgnztn: Bruce Appel / Woodward-Clyde Consultants
Title: *Letter commenting on the Site Characterization Report*

Document No.: 1.01 013 11/11/11 **Pages:** 25 **Confidential?** N
From/Orgnztn: Ian Von Lindern / TerraGraphics
To / Orgnztn: Russell Wyer / EPA
Title: *Comments in support of including Bunker Hill on National Priority List*

Document No.: 1.01 014 09/13/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter transmitting draft Interim Site Characterization Report*

Document No.: 1.01 015 09/16/85 **Pages:** 5 **Confidential?** N
From/Orgnztn: David Dabroski / EPA
To / Orgnztn: Robert Magnuson / Witherspoon, Kelley, Davenport,TO
Title: *Letter regarding access to property for document search*

Document No.: 1.01 016 09/26/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Ernesta Barnes / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter concerning Gulf's participation in the RI/FS*

Document No.: 1.01 017 10/18/85 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jack Kendrick / Bunker Limited Partnership
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter and attachments regarding the draft Interim Site Characterization Report*

Document No.: 1.01 018 10/25/85 **Pages:** 150 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter and attachments regarding comments on draft Interim Site Characterization Report*

Document No.: 1.01 019 10/25/85 **Pages:** 34 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter and attachments commenting on the Interim Site Characterization Report*

Document No.: 1.01 020 10/28/85 **Pages:** 39 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter and attachments commenting on the Interim Site Characterization Report*

Document No.: 1.01 021 09/13/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter transmitting draft Interim Site Characterization Report*

Document No.: 1.02 001 08/13/82 **Pages:** 20 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Hazard Ranking Systems data*

Document No.: 1.02 002 11/11/11 **Pages:** 7 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *HRS Comments*

Document No.: 1.02 123 06/06/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Members / Bunker Hill SF Task Force
Title: *Meeting on Institutional Controls.*

Document No.: 1.03 001 08/04/86 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Interim Site Characterization Report*

Document No.: 1.03 901 01/15/86 **Pages:** 400 **Confidential?** Y
From/Orgnztn: NA / TerraGraphics
To / Orgnztn: NA / IDHW
Title: *Draft GIS Data Base Development and Soils Characterization Report*

Document No.: 1.04 001 07/01/86 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Kellogg Revisited -- 1983, Childhood Blood Lead and Environmental Status Report*

Document No.: 1.05 001 09/01/83 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Remedial Action Master Plan*

Total Documents In Group: 25

DOCUMENT GROUP: 2.0

Document No.: 2.01 003 10/06/86 **Pages:** 10 **Confidential?** N
From/Orgnztn: Mike Biotti, Dale Costa and / George Metzgar, Larry Curry
To / Orgnztn: NA / NA
Title: *Consent for Access to the various air monitor locations*

Document No.: 2.01 004 03/19/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Governor Cecil Andrus / IDHW
To / Orgnztn: Robie Russel / EPA
Title: *Letter requesting the EPA to do everything in its power to mitigate the blowing dust in the Kellogg area this summer*

Document No.: 2.01 005 07/31/87 **Pages:** 3 **Confidential?** N
From/Orgnztn: Doug Christensen / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter reviewing 1986 Residential Soils and Fugitive Dust Sampling Field Documents*

Document No.: 2.01 006 11/25/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Raleigh Farlow / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo commenting on the QAPP for the 1987 Air Monitoring Plan*

Document No.: 2.01 008 02/22/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Charles Findley / EPA
Title: *Letter concerning IDHW's role in the Bunker Hill Superfund project*

Document No.: 2.01 009 02/22/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jeff Franklin, Joe Gerick, Steve S. / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Memo regarding splitting of the soil cores*

Document No.: 2.01 010 09/08/88 **Pages:** 7 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Memo regarding updating of the 1987 subsurface soil sampling field documents*

Document No.: 2.01 011 10/04/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bruce Woods / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo commenting on the QAPP for the 1987 SAP*

Document No.: 2.01 012 10/18/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: James Anderson / local citizen
To / Orgnztn: NA / IDHW
Title: *Letter denying any cleanup on James Anderson's property*

Document No.: 2.01 013 12/12/88 **Pages:** 8 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter and attachments commenting on the QAPP and the FSP*

Document No.: 2.01 014 01/20/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Bruce Woods / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo commenting on the FSP for Phase II*

Document No.: 2.01 015 02/17/89 **Pages:** 20 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Joe Gerick / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo and attachments responding to comments on the Phase II field documents*

Document No.: 2.01 016 05/17/89 **Pages:** 16 **Confidential?** N
From/Orgnztn: Joe Gerick / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo and attachments responding to Pintlar comments on the Phase II FSP*

Document No.: 2.01 018 06/19/89 **Pages:** 30 **Confidential?** N
From/Orgnztn: Don Caniparoli, David Gay / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memorandum regarding recommendations on sieve analysis*

Document No.: 2.01 019 06/15/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Barry Johnson / HHS
To / Orgnztn: Vernon Houk / HHS
Title: *Memo and attachments regarding ATSDR's review of the house dust remediation*

Document No.: 2.01 020 07/20/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Fritz Dixon / IDHW
To / Orgnztn: Dave Chesmore / IDHW
Title: *Memo commenting on the house dust work plan*

Document No.: 2.01 021 08/07/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Charles Findley / EPA
Title: *Letter discussing concern of recontamination from fugitive dust of remediated soils*

Document No.: 2.01 022 10/04/89 **Pages:** 25 **Confidential?** N
From/Orgnztn: Joe Gerick / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo and attachments regarding SOPs for the House Dust Field Sampling Plan*

Document No.: 2.01 023 10/06/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: James Simpson / CDC
Title: *Letter inviting participation in evaluation of house dust preliminary tests*

Document No.: 2.01 024 10/18/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: John Schweiss / EPA
To / Orgnztn: Roy Jones / EPA
Title: *Memo commenting on the QAPP for Air Monitoring/Fugitive Dust Sampling*

Document No.: 2.01 025 12/11/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Dick Scalf / Robert S. Kerr Environmental Research
Title: *Letter requesting technical assistance in development of the RI Report*

Document No.: 2.01 026 01/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Cliff Roberts / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter commenting on the memo comparing fluoroboric acid to EPA CLP SOW 785 digestion*

Document No.: 2.01 027 01/26/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Cliff Roberts / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to SAIC comments on the memo comparing fluoroboric acid to EPA CLP SOW 785 digestion*

Document No.: 2.01 028 03/06/90 **Pages:** 8 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding responses to comments on 1986-1987 Residential Soil and Litter Data Summary Report*

Document No.: 2.01 029 03/26/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to comments on House Dust Field Sampling Plan*

Document No.: 2.01 030 04/09/90 **Pages:** 12 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding lead mass balance from preliminary house dust data*

Document No.: 2.01 031 04/26/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Bruce Woods / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo commenting on Memorandum -- Lead Mass Balance from Preliminary House Dust Data*

Document No.: 2.01 032 06/13/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: John Brueck / IDHW
To / Orgnztn: IDHW file / NA
Title: *Memo regarding August 31, 1989 Bunker Hill Air Task Memo from Don Caniparoli of CH2M Hill to Rob Hanson of IDHW*

Document No.: 2.01 033 06/14/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Scott Peterson / IDHW
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter regarding fugitive dust control measures at Mine Timber and Silver Valley Truck Stop, Smelterville Flats*

Document No.: 2.01 034 06/29/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Steve Sedlacek / CH2M Hill
Title: *Letter commenting on CH2M Hill's memo: Review of Past Practices: Comparison of QAPP for Air Monitoring*

Document No.: 2.01 035 07/09/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to Pintlar comments on 1987 Air Filter Data Summary Report*

Document No.: 2.01 036 07/25/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter and attachments commenting on the Fugitive Dust Source Data Summary Report*

Document No.: 2.01 037 08/01/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bruce Woods / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo commenting on the Fugitive Dust Source Data Summary Report*

Document No.: 2.01 038 08/06/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter commenting on the draft Phase II Remedial Investigation Data Summary Report*

Document No.: 2.01 040 10/10/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter commenting on the draft Technical Memorandum: Lead Accumulation in Unsaturated Soils*

Document No.: 2.01 042 04/22/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter regarding Quality Assurance Plan submitted by Silver Valley*

Document No.: 2.01 043 08/06/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Don Caniparoli / CH2M Hill
Title: *Letter transmitting comments on CH2M Hill'S Kaiser PSD Quality Assurance as it applies to current Remedial Investigation for the Bunker Hill Project*

Document No.: 2.01 045 01/16/88 **Pages:** 10 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Wayne Grotheer, Sally Martyn / EPA
Title: *Memorandum regarding comments on Bunker Hill Site Populated Areas RI/FS Proposed Project Plan*

Document No.: 2.01 046 08/29/88 **Pages:** 18 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Sally Martin, Sally Goodell / IDHW
Title: *Memorandum regarding Phase II RI Project BOI24632.D1.01*

Document No.: 2.01 047 07/14/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Jon Schweiss / EPA
Title: *Letter transmitting CH2M Hill's November, 1981 Kaiser Aluminum Mead Works PSD Ambient Monitoring Plan*

Document No.: 2.01 048 07/23/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Wayne Sorensen / Silver Valley Laboratories
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter transmitting a list of recommendations and actions from Silver Valley Laboratories*

Document No.: 2.01 049 11/07/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Sally Martyn / EPA
Title: *Letter reviewing Field Sampling Plan for the Phase II RI Sampling and Analysis Plan Bunker Hill Cercla Site Populated Areas RI/FS*

Document No.: 2.01 050 12/07/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jon Schweiss / EPA
To / Orgnztn: Don Caniparoli / CH2M Hill
Title: *Letter addressing deficiencies in the gravimetric analysis of high-volume filters being collected with the Bunker Hill Superfund sampling program*

Document No.: 2.01 051 01/04/88 **Pages:** 500 **Confidential?** N
From/Orgnztn: Tom Neace / IDHW
To / Orgnztn: Sally Martyn / EPA
Title: *Memorandum regarding summary of the Objectives and Quality Assurance Documents for the Fugitive Dust Monitoring Network at the Bunker Hill*

Superfund Site

Document No.: 2.01 053 07/05/83 **Pages:** 11 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: James Simpson / Center for Environmental Health
Title: *Letter discussing acquired soil lead data from Kellogg, Idaho*

Document No.: 2.01 054 04/30/87 **Pages:** 25 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Wayne Grotheer / EPA
Title: *Letter regarding 1987 Residential Soil and Indoor Dust Sampling Program*

Document No.: 2.01 055 07/07/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Bradley Harr / IDHW
Title: *Letter reviewing the Preliminary Draft Report -- Analysis of Existing Residential Soil Metals Profile Data: Bunker Hill Site RI/FS*

Document No.: 2.01 056 05/10/82 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Dr. Lee Stokes / IDHW
Title: *Letter transmitting Bunker Hill slag sampling data obtained from Ralph Gilges*

Document No.: 2.01 057 09/04/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: NA / NA
Title: *Letter regarding September 2, 1987 Dust Storm*

Document No.: 2.01 058 05/02/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: John Meyer, Sally Martyn / EPA
Title: *Memo regarding Draft Work Plan - Populated Areas RI/FS, April 20, 1988*

Document No.: 2.01 062 10/17/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Bradley Harr / IDHW
To / Orgnztn: Jim Everts / EPA
Title: *Letter requesting that EPA review SOW comments and suggested alternatives*

Document No.: 2.01 063 07/07/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Bradley Harr / IDHW
Title: *Letter reviewing March 26, 1986, Preliminary Draft Report-- Analysis of Existing Residential Soil Metals Profile Data: Bunker Hill Site RI/FS*

Document No.: 2.01 064 05/14/90 **Pages:** 64 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *CEC of Soil Cores*

Document No.: 2.01 065 04/30/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jon Schweiss / EPA
To / Orgnztn: Wayne Grotheer / EPA
Title: *IDHW-TerraGraphics Bunker Hill Air Monitoring Program*

Document No.: 2.01 067 05/28/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Kenneth Brown / EPA
To / Orgnztn: Wayne Grotheer / EPA
Title: *Assistance for the Bunker Hill Superfund Site*

Document No.: 2.01 068 08/13/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Kenneth Brown / EPA
Title: *Request for assistance - Review of Soil Cont. Characterization and Proposed Soil Verification Survey for Bunker Hill Site*

Document No.: 2.01 069 07/26/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jon Schweiss / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *ASI Systems Audit of Silver Valley Laboratory*

Document No.: 2.01 070 01/15/87 **Pages:** 16 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Bryan Johnson / IDHW
Title: *Key issues in the Bunker Hill RI/FS Project: "Where do we go from here?"*

Document No.: 2.01 071 07/28/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Roy Jones, Raleigh Farlow / EPA
To / Orgnztn: Addressees / NA
Title: *Final Report of Technical Assistance/Operations Review of Bunker Hill Residential Sampling Activities and Silver Valley Laboratory's QAP Compliance*

Document No.: 2.01 073 11/11/11 **Pages:** 10 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter enclosing comments on Quality Assurance Project Plan for RI Phase II Field Sampling and Sample Analysis*

Document No.: 2.01 074 09/17/86 **Pages:** 4 **Confidential?** N
From/Orgnztn: Kenneth Brown / EPA
To / Orgnztn: Wayne Grotheer / EPA
Title: *Review of Proposed Sampling Method for Windblown Dust Sources at Bunker Hill Superfund Site.*

Document No.: 2.01 075 10/27/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Raleigh Farlowe / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Critical Elements of the Soils Investigation Quality Assurance Project Plan*

Document No.: 2.01 076 11/25/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Meyer / EPA
To / Orgnztn: Addressees / NA
Title: *Letter requesting comments on Human Health Risk Assessment Protocol for the Populated Areas of the Bunker Hill Superfund Site*

Document No.: 2.01 077 05/03/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Carl Mattingly / South Fork Sewer District
Title: *Requesting possible meeting to discuss Page Ponds as a potential site for disposal of residential soils*

Document No.: 2.01 078 01/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Steve Sedlacek / CH2M Hill
Title: *Bunker Hill RI Comments on Comparison of Fluoroboric Acid to EPA CLP SOW 785 Digestion*

Document No.: 2.01 079 09/06/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: File / NA
Title: *Audit of Fast-Track Sampling during 1989 Phase II RI Sampling*

Document No.: 2.01 080 06/17/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Addressees / NA
Title: *Fugitive Dust Monitoring at Bunker Hill Superfund Site*

Document No.: 2.01 084 02/22/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Street Washing - Road Oiling*

Document No.: 2.01 085 07/06/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Sally Goodell / EPA, IDHW
Title: *Slag*

Document No.: 2.01 087 05/18/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of Bunker Hill Superfund Task Force Meeting*

Document No.: 2.01 090 02/20/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Mike Thomas / IDHW
Title: *Letter transmitting comments to draft 1986-1987 Residential Soil and Litter Data Summary Report*

Document No.: 2.01 091 02/07/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Sally Martyn / USEPA
Title: *Letter to provide State's Interpretation of results*

Document No.: 2.01 092 12/15/87 **Pages:** 6 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter and attachments commenting on the Sampling and Analysis Plan*

Document No.: 2.01 093 06/16/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Susan Martin / IDHW
Title: *Letter commenting on the Work Plan*

Document No.: 2.01 094 07/21/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter acknowledging receipt of comments on the Work Plan and the EECA*

Document No.: 2.01 095 08/08/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Susan Martin / IDHW
Title: *Letter commenting on the Spectral Reflectance Imagery Technical Memorandum*

Document No.: 2.01 096 08/12/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Susan Martin / IDHW
Title: *Letter commenting on the LAP for the populated areas*

Document No.: 2.01 097 01/03/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on the QAPP for Phase II*

Document No.: 2.01 098 01/03/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on the FSP for Phase II*

Document No.: 2.01 099 04/07/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on FSP for Phase II*

Document No.: 2.01 100 09/26/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter and attachments regarding comments on data validation reports for air filters, house dust and residential soils*

Document No.: 2.01 101 11/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter commenting on the draft Quality Assurance Project Plan for Air Monitoring Fugitive Dust Sampling*

Document No.: 2.01 102 12/27/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter commenting on the draft SOPs for the House Dust Field Sampling Plan*

Document No.: 2.01 103 05/30/90 **Pages:** 22 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter and attachments commenting on the Air Filter Data Summary Report*

Document No.: 2.01 104 02/09/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: D. O. Suhr / ASARCO
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter responding to the Draft Work Plan on the Bunker Hill Superfund Site.*

Document No.: 2.01 105 08/11/87 **Pages:** 9 **Confidential?** N
From/Orgnztn: NA / Gulf Resources and Chemical Co.
To / Orgnztn: Bryan Johnson / IDHW
Title: *Comments on RI/FS Work Plan*

Document No.: 2.01 106 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Response to letter concerning activities at Bunker Hill site*

Document No.: 2.01 107 03/18/91 **Pages:** 18 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Chris Mossman, etc. / Panhandle Utility Council, etc.
Title: *An letter introducing the report "An Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site".*

Document No.: 2.01 108 03/15/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / US EPA - IDHW
Title: *Shoshone County Board of realtors: Institutional Controls*

Document No.: 2.01 109 03/06/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / US EPA - IDHW
Title: *Elected official meeting: Institutional Controls*

Document No.: 2.01 110 03/06/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Mailing of the Evaluation of Institutional Controls for the Populated areas of the Bunker Hill Superfund Site.*

Document No.: 2.01 111 02/12/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: N/A / Panhandle Health District I
To / Orgnztn: Elected officials / N/A
Title: *Letter to the elected officials regarding Institutional Control*

Document No.: 2.01 112 02/21/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / Panhandle Health District I
To / Orgnztn: Public / N/A
Title: *Bunker Hill Superfund Task Force meeting*

Document No.: 2.01 113 02/21/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: Public / N/A
Title: *Advertisement: Bunker Hill Superfund Task Force meeting*

Document No.: 2.01 114 11/29/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Chuck Moss / IDHW
Title: *Enclosure letter for the Draft copy of the executive summary for Phase I of the Institutional Controls.*

Document No.: 2.01 115 09/25/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Idaho Board of Health and Welfare meeting*

Document No.: 2.01 116 09/28/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Chuck Moss / IDHW
Title: *Enclosure letter for the outline of the Institutional Controls Program.*

Document No.: 2.01 117 09/25/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Fiscal officers tour of the Bunker Hill Site.*

Document No.: 2.01 118 09/29/90 **Pages:** 14 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Dale Hunt, etc. / City of Smelterville, etc.
Title: *Request for a meeting regarding Institutional Controls*

Document No.: 2.01 119 06/28/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: N/A / Branson United Steel Building Inc
Title: *Average levels of lead throughout Kellogg, Smelterville, Wardner, and Page.*

Document No.: 2.01 120 06/19/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Local elected officials / Planning Commission Members
Title: *Meeting summary RE: Institutional Controls*

Document No.: 2.01 121 06/18/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Meeting summary of Shoshone County Board of Realtors*

Document No.: 2.01 122 06/07/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Hill, Krulitz, Peterson, Biotti, & Hunt / Mayor: Kellogg etc.
Title: *Documentation of telephone conversations RE: the development of institutional controls.*

Document No.: 2.01 124 02/23/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Interim Management of Soil Barriers*

Document No.: 2.01 125 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / Panhandle Health District I
To / Orgnztn: N/A / Utility Companies, Contractors et
Title: *Protection of barriers placed during remediation*

Document No.: 2.01 126 09/15/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: William Longston / USEPA
To / Orgnztn: N/A / N/A
Title: *Thank you letter for participation in the clean up process.*

Document No.: 2.01 127 04/06/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek - John Lincoln / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *institutional Controls for the Feasibility Study*

Document No.: 2.01 128 06/22/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Joann Groves, Mayor / City of Wardner
Title: *Summary of May 16 1989 meeting of the representatives RE: 1989 Soil Removal Program.*

Document No.: 2.01 129 06/15/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / Panhandle Health District
To / Orgnztn: Sally Martyn - Sally Goodell / USEPA - IDHW
Title: *May 16, 1989 elected officials meeting*

Document No.: 2.01 130 03/31/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Sally Goodell / USEPA - IDHW
Title: *Comments on EEPC*

Document No.: 2.01 131 09/15/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Bryan, Sally, Doug / USEPA
Title: *August 20, 1987 Bunker Hill Superfund Task Force Work Shop.*

Document No.: 2.01 132 12/15/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: N/A / Panhandle Health District I
To / Orgnztn: Public / N/A
Title: *Announcement of the Bunker Hill Superfund Task Force Meeting*

Document No.: 2.01 133 09/15/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Sally Doug / USEPA
Title: *August 19, 1987 Institutional Controls Workshop with City officials*

Document No.: 2.01 134 08/14/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Members / BH SF Task Force
Title: *August 20, 1987 Workshop*

Document No.: 2.01 135 08/14/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Groves, Watts, Hill, Biotti: Mayors / Wardner Smelterville Kell
Title: *Reminder of the Institutional Controls meeting of Aug. 19, 1987.*

Document No.: 2.01 136 07/14/87 **Pages:** 7 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Watts Lassfolk Douglas Biotti Groves etc / Mayors:Councilmen:et
Title: *Letter informing Mayors of requested meeting date of July 21, 1987.*

Document No.: 2.01 137 08/13/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Silver Valley SF Task Force Meeting Summary*

Document No.: 2.01 138 07/06/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson / IDHW
Title: *Meeting with State Representative Lou Horvath*

Document No.: 2.01 139 06/26/87 **Pages:** 12 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle health District I
To / Orgnztn: Hill Vergobbi Biotti Lassfolk Watts etc. / Mayors:Councilmen:et
Title: *Summary of meeting involving addressees participation in the project.*

Document No.: 2.01 140 06/26/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Wayne / IDHW
Title: *June 17, 1987 City-Council Meeting to begin addressing Institutional Controls at the Bunker Hill SF Site*

Document No.: 2.01 141 11/11/11 **Pages:** 22 **Confidential?** N
From/Orgnztn: Jerry D. Mason and Gale E. Allen / Professional Services Center
To / Orgnztn: N/A / N/A
Title: *BH SF Site Populated Areas--Institutional Controls for the Feasibility Study*

Document No.: 2.01 142 06/10/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: Washington Water Power*

Document No.: 2.01 143 06/11/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: City of Smelterville*

Document No.: 2.01 144 06/11/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: City of Pinehurst*

Document No.: 2.01 145 05/15/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District I
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: Shoshone County Commissions*

Document No.: 2.01 146 04/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: Kellogg Chamber of Commerce*

Document No.: 2.01 147 04/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: Kellogg Kiwanis*

Document No.: 2.01 148 04/10/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: City of Wardner*

Document No.: 2.01 149 04/10/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting: City of Kellogg*

Document No.: 2.01 150 03/06/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Elected Official Meeting: Institutional Controls*

Document No.: 2.01 151 10/16/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / USEPA - IDHW
Title: *Institutional Controls Meeting*

Document No.: 2.01 152 08/21/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *ERRATA List for the Residential Soil Feasibility Study and the Risk Assessment Data Evaluation Report*

Document No.: 2.01 901 07/12/84 **Pages:** 3 **Confidential?** Y
From/Orgnztn: Tom Harman / IDHW
To / Orgnztn: John Ledger / IDHW
Title: *Internal memo regarding suggestions for controlling fugitive dust sources*

Document No.: 2.01 902 02/26/87 **Pages:** 3 **Confidential?** Y
From/Orgnztn: John Ledger / IDHW
To / Orgnztn: Ken Brooks / IDHW
Title: *Internal memo summarizing fugitive dust CIA problems, current activities, and possible solutions*

Document No.: 2.01 903 06/14/91 **Pages:** 3 **Confidential?** Y
From/Orgnztn: Rob Hanson/Fritz Dixon / IDHW
To / Orgnztn: residents / N/A
Title: *Soil Cores Homeowner letters.*

Document No.: 2.02 001 06/02/88 **Pages:** 40 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *RI/FS Work Plan for the Bunker Hill CERCLA Site Populated Areas*

Document No.: 2.02 003 08/11/87 **Pages:** 30 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: Interested Parties / NA
Title: *Letter and attachments regarding the Bunker Hill Work Plan*

Document No.: 2.02 004 01/28/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / USEPA
To / Orgnztn: To those who are interested / N/A
Title: *Memo regarding Gulf Resources and Chemicals Draft Work Plan Comment period*

Document No.: 2.02 005 12/31/86 **Pages:** 7 **Confidential?** N
From/Orgnztn: Ian Von Lindern / Terragraphics
To / Orgnztn: Bryan Johnson / IDHW
Title: *1986 Res. Soil Survey Status Report*

Document No.: 2.02 006 09/07/88 **Pages:** 20 **Confidential?** N
From/Orgnztn: Susan Martin, Sally Goodell / IDHW
To / Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
Title: *Memo regarding the review of recommendations for collection of information for Phase II*

Document No.: 2.02 007 06/09/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: Bunker Hill Project Team / N/A
Title: *Memo on Final RI/FS Workplan for Populated Areas*

Document No.: 2.02 008 01/29/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Wayne Grotheer / USEPA
To / Orgnztn: Lynn McKee / IDHW
Title: *General Concepts for BH RI/FS - Populated Areas*

Document No.: 2.03 001 08/15/83 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Quality Assurance Project Plan for Kellogg, Idaho Study*

Document No.: 2.03 002 06/25/85 **Pages:** 10 **Confidential?** N
From/Orgnztn: Wayne Grotheer / USEPA
To / Orgnztn: Brad Harr / IDHW
Title: *Memo: Revised Draft Criteria for the Evaluation of Existing Bunker Hill Information*

Document No.: 2.03 002 07/25/85 **Pages:** 10 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Addressees / NA
Title: *Memo and attachments regarding criteria for evaluation of existing information relevant to the Bunker Hill site.*

Document No.: 2.03 003 09/10/86 **Pages:** 20 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Bunker Hill Residential Soil Survey Protocol*

Document No.: 2.03 004 09/10/86 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Quality Assurance Project Plan*

Document No.: 2.03 005 11/03/86 **Pages:** 28 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Bradley Harr / IDHW
Title: *IRM Fugitive Dust and Monitoring Protocols*

Document No.: 2.03 006 11/03/86 **Pages:** 200 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Bradley Harr / IDHW
Title: *IRM Fugitive Dust Source Sampling and Monitoring Protocols Volume II*

Document No.: 2.03 007 04/13/87 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / NA
Title: *QA/QC Document for Inorganic Analysis*

Document No.: 2.03 008 11/03/87 **Pages:** 20 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *1987 Sampling and Analysis Plan*

Document No.: 2.03 009 12/04/87 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Field Operations Plan for the 1987 Subsurface Soil Sampling*

Document No.: 2.03 010 12/14/87 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Quality Assurance Project Plan for the 1987 Sampling and Analysis Plan*

Document No.: 2.03 011 07/01/88 **Pages:** 10 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Fugitive Dust Monitoring Program Quality Assurance and Quality Control Plan*

Document No.: 2.03 012 08/22/88 **Pages:** 6 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Amendment of Dust Source Sampling Protocols*

Document No.: 2.03 013 08/26/88 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Laboratory Analytical Protocols for the Bunker Hill populated areas*

Document No.: 2.03 014 09/20/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Amendments to the Residential Soil and Litter Sampling Protocols*

Document No.: 2.03 015 12/28/88 **Pages:** 6 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Amendment to Air Monitoring Protocols*

Document No.: 2.03 016 03/01/89 **Pages:** 40 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Quality Assurance Project Plan, Air Monitoring/Fugitive Dust Sampling*

Document No.: 2.03 017 05/04/89 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Field Sampling Plan for the Phase II RI Sampling and Analysis Plan*

Document No.: 2.03 018 08/01/89 **Pages:** 75 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *House Dust Remedial Investigation Work Plan*

Document No.: 2.03 019 01/01/90 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Quality Assurance Project Plan for Air Monitoring*

Document No.: 2.03 021 01/30/90 **Pages:** 12 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Cliff Roberts / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Amendment to the Laboratory Analytical Protocol*

Document No.: 2.03 022 02/26/90 **Pages:** 15 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Cliff Roberts / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo comparing fluoroboric acid to EPA CLP SOW 785 digestion*

Document No.: 2.03 023 03/01/90 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *House Dust Field Sampling Plan*

Document No.: 2.03 024 03/01/90 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Quality Assurance Project Plan for the House Dust Remedial Study Sampling and Analysis Plan*

Document No.: 2.03 025 11/11/11 **Pages:** 4 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Bunker Hill Site Soil Survey Sample Bank and Field Instructions*

Document No.: 2.03 026 02/10/89 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Quality Assurance Project Plan for the RI Phase II Sampling and Analysis Plan*

Document No.: 2.03 027 09/28/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Don Caniparoli, Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding Past Practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Sampling Effort*

Document No.: 2.03 028 07/14/87 **Pages:** 300 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Jon Schweiss / EPA
Title: *Letter transmitting CH2M Hill's November, 1981 Kaiser Aluminum Mead Works PSD Ambient Monitoring Plan*

Document No.: 2.03 029 09/26/87 **Pages:** 150 **Confidential?** N
From/Orgnztn: Bruce Appel / Woodward-Clyde Consultants
To / Orgnztn: John Meyer / EPA
Title: *QA Plan*

Document No.: 2.03 030 07/26/88 **Pages:** 12 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Addressees / NA
Title: *Fugitive Dust Monitoring Quality Assurance and Quality Control Plan*

Document No.: 2.03 032 04/21/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources & Chemical Co.
Title: *Letter enclosing Quality Assurance Plan and Analytical Protocols*

Document No.: 2.03 033 11/10/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Meyer / EPA
To / Orgnztn: T. Barry Tierney / Pintlar Corp.
Title: *Letter regarding QA/QC of all sampling efforts*

Document No.: 2.03 034 01/26/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bruce A. Woods, Roy Jones / USEPA
To / Orgnztn: Sally Martyn / IDHW
Title: *Memo approving Silver Valley Lab QA Plan*

Document No.: 2.03 035 08/30/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Susan Martyn, Sally Goodell / IDHW
To / Orgnztn: Joe Gerick, Steve Sedlacek, Don Caniparoli / CH2M Hill
Title: *Memo Re: Selection of air filters for analysis*

Document No.: 2.03 036 02/12/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: G. R. Luster / Woodward-Clyde Consultants
To / Orgnztn: Bruce Appel / USEPA
Title: *Memo Re: Sampling Protocol used for sampling Residential Areas*

Document No.: 2.03 037 07/29/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Memo Re: Dropping three analyses from Soil Core Sampling*

Document No.: 2.04.01 001 08/11/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Susan Martin, Sally Goodell / IDHW
To / Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
Title: *Memo regarding Selection Criteria for Residential Soils and Litter Data Validation*

Document No.: 2.04.01 004 03/01/90 **Pages:** 300 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Residential Soil and Litter Data Summary Report for The Bunker Hill Cercla Site, Populated Areas RI/FS Document Number: BHPA-RSL-F-RO-030690*

Document No.: 2.04.01 005 02/01/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Rob Hanson / IDHW
Title: *Memorandum regarding comments on the December 1990 version of the 1987 Soil Cores Data Summary Report*

Document No.: 2.04.01 007 05/24/85 **Pages:** 20 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Bradd Harr / IDHW
Title: *Draft Data Assembly Status and Progress Report*

Document No.: 2.04.01 008 12/31/86 **Pages:** 300 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Bryan Johnson / IDHW
Title: *Bunker Hill Site RI/FS Soil Characterization Report*

Document No.: 2.04.01 009 12/31/86 **Pages:** 10 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Bryan Johnson / IDHW
Title: *1986 Residential Soil Survey Status Report*

Document No.: 2.04.01 010 07/03/86 **Pages:** 100 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Brad Harr / IDHW
Title: *Letter and attachments commenting on the draft Geographic Information System and Soils Characterization Report*

Document No.: 2.04.01 011 12/15/86 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Analysis of Existing Residential Soil Metals Profile Data: Bunker Hill Site RI/FS*

Document No.: 2.04.01 901 11/11/11 **Pages:** 2 **Confidential?** Y
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Maps designating residential soil lead levels and ages of children*

Document No.: 2.04.01 902 11/11/11 **Pages:** 6 **Confidential?** Y
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Maps of geographic distribution of metals*

Document No.: 2.04.01 903 12/15/86 **Pages:** 2 **Confidential?** Y
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Addresses for soil samples collected as part of the Soil Metal Profile Analysis*

Document No.: 2.04.01 904 05/31/90 **Pages:** 999 **Confidential?** Y
From/Orgnztn: N/A / Terragraphics
To / Orgnztn: N/A / N/A
Title: *Data Base Management and Geographic Information System for Populated Areas Residential Properties at the Bunker Hill National Priorities List(NPL) Site*

Document No.: 2.04.02 001 12/31/86 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / TerraGraphics
To / Orgnztn: NA / IDHW
Title: *Fugitive Dust Assessment Bunker Hill Site Status Report*

Document No.: 2.04.02 002 07/17/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter commenting on Potential Sources of Fugitive Dust*

Document No.: 2.04.02 003 06/24/87 **Pages:** 20 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Fugitive Dust Assessment Bunker Hill Site Status Report Addendum*

Document No.: 2.04.02 004 08/17/87 **Pages:** 50 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Memorandum regarding Bunker Hill Site Air Monitoring Report -- July 1987*

Document No.: 2.04.02 005 08/21/87 **Pages:** 9 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Meteorological and ambient air monitoring performance and systems audit*

Document No.: 2.04.02 006 09/17/87 **Pages:** 100 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Memorandum regarding Bunker Hill Site Air Monitoring Report -- August 1987*

Document No.: 2.04.02 007 10/14/87 **Pages:** 20 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Memo regarding Bunker Hill Site Air Monitoring Report -- September 1987*

Document No.: 2.04.02 009 12/03/87 **Pages:** 20 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Potential Sources of Fugitive Dust Summary of Analytical Results Initial Forty-Eight Samples*

Document No.: 2.04.02 010 12/03/87 **Pages:** 50 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Memo regarding Bunker Hill Site Air Monitoring Report -- October 1987*

Document No.: 2.04.02 011 12/31/87 **Pages:** 7 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Meteorological and ambient air monitoring performance and systems audit*

Document No.: 2.04.02 013 09/02/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Memo about Further 15 Percent Selection Criteria regarding Task Order RI15A*

Document No.: 2.04.02 014 09/15/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Memo regarding the Bunker Hill Air Quality Program*

Document No.: 2.04.02 015 01/27/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo regarding 1987 air filter chain-of-custody*

Document No.: 2.04.02 016 07/01/89 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Recommendations for Network Configuration and Operation for 1989 Particulate Monitoring*

Document No.: 2.04.02 017 08/01/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Don Caniparoli, David Gay / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo regarding TSP/Metals Tables Review*

Document No.: 2.04.02 018 10/23/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Don Caniparoli, David Gay / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding particulate emission rates for roads*

Document No.: 2.04.02 019 01/17/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Don Caniparoli / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding meteorological and particulate monitoring performance audit*

Document No.: 2.04.02 020 02/07/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Bill Bluck / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding further sieve analysis of fugitive dust source samples*

Document No.: 2.04.02 021 03/26/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mike Thomas / IDHW
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding further sieve analysis of fugitive dust source samples*

Document No.: 2.04.02 022 05/31/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Don Caniparoli, David Gay, Steve S. / CH2M Hill
To / Orgnztn: Rob Hanson, John Brueck / IDHW
Title: *Memo regarding Past Practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Sampling Effort*

Document No.: 2.04.02 023 06/01/90 **Pages:** 50 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Fugitive Dust Source Data Summary Report, Appendix E and Figure 3*

Document No.: 2.04.02 024 06/22/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson, Mike Thomas / IDHW
Title: *Memo regarding further sieve analysis of fugitive dust source samples*

Document No.: 2.04.02 025 06/29/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Steve Sedlacek / CH2M Hill
Title: *Letter commenting on May 31, 1990 memo on Past Practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Sampling Effort*

Document No.: 2.04.02 027 07/09/90 **Pages:** 300 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Data Summary Report: 1987 Air Filters*

Document No.: 2.04.02 028 07/17/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Marsha Lee / EPA
Title: *Letter transmitting redraft of the Data Summary Report: 1987 Air Filters*

Document No.: 2.04.02 029 07/25/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Elaine Hanford / SAIC
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter commenting on Fugitive Dust Source Data Summary Report*

Document No.: 2.04.02 030 08/01/90 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Fugitive Dust Source Data Summary Report*

Document No.: 2.04.02 031 08/31/90 **Pages:** 6 **Confidential?** N
From/Orgnztn: Cliff Roberts / CH2M Hill
To / Orgnztn: Elaine Hanford / SAIC
Title: *Letter responding to comments on the Fugitive Dust Source Data Summary Report*

Document No.: 2.04.02 032 07/09/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to comments on the 1987 Air Filter Data Summary Report*

Document No.: 2.04.02 033 08/31/90 **Pages:** 6 **Confidential?** N
From/Orgnztn: Cliff Roberts, Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to comments on the Fugitive Dust Source Data Summary Report*

Document No.: 2.04.02 035 10/03/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Scott Ellsworth / CH2M Hill
To / Orgnztn: Steve Sedlacek / CH2M Hill
Title: *Memo regarding particulate emission rates for roads*

Document No.: 2.04.02 036 09/28/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Don Caniparoli, Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding past practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Sampling Effort*

Document No.: 2.04.02 037 09/20/90 **Pages:** 30 **Confidential?** N
From/Orgnztn: Don Caniparoli, David Gay, Steve S. / CH2M Hill
To / Orgnztn: Rob Hanson, John Brueck / IDHW
Title: *Memo responding to comments on Air Filter Data Summary Report*

Document No.: 2.04.02 038 11/05/90 **Pages:** 25 **Confidential?** N
From/Orgnztn: Kishor Gala / CH2M Hill
To / Orgnztn: Steve Sedlacek / CH2M Hill
Title: *Memo regarding Bunker Hill 1987 and 1989 Blank Air Filter Data*

Document No.: 2.04.02 039 09/28/90 **Pages:** 7 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding response to comments on the Bunker Hill Air Filter Data Summary Report*

Document No.: 2.04.02 040 01/11/91 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Draft 1987/1989 Air Filter Core Data Summary Report*

Document No.: 2.04.02 041 01/21/91 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Response to Comments on the Bunker Hill Air Filter Data Summary Report*

Document No.: 2.04.02 043 11/29/88 **Pages:** 9 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn / EPA
Title: *Draft Memo*

Document No.: 2.04.02 044 02/27/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Mervin Hill / Mayor, City of Kellogg
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Superfund Dust Control*

Document No.: 2.04.02 045 03/09/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Sally Goodell / EPA, IDHW
Title: *Smelterville Street Washing*

Document No.: 2.04.02 046 03/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Kevin Rochlin / EPA
Title: *Fugitive Dust Control at the Bunker Hill Superfund Site*

Document No.: 2.04.02 047 05/14/91 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / NA
Title: *Final Data Summary Report: 87/89 Air Filters for the BH CERCLA Site Populated Areas*

Document No.: 2.04.02 048 05/15/91 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Comments on the Data Summary Report: 1987/1989 Air Filters for the BH CERCLA Site Populated areas RI/FS*

Document No.: 2.04.02 049 06/24/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: Douglas Christensen / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter Re: review of first deliverable on the Fugitive Dust task*

Document No.: 2.04.02 050 01/12/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Joe Gerick, Don Caniparoli / CH2M Hill
Title: *Memo regarding the BH Air quality program*

Document No.: 2.04.02 051 06/21/89 **Pages:** 25 **Confidential?** N
From/Orgnztn: Joe Gerick / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *memo: Revision of Fugitive Dust Source Data Summary Report*

Document No.: 2.04.02 052 02/27/90 **Pages:** 30 **Confidential?** N
From/Orgnztn: Don Caniparoli, David Gay, Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson, John Brueck / IDHW
Title: *Memo: Bunker Hill 1989 Field Program TSP Concentrations*

Document No.: 2.04.03 001 07/14/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Susan Martin, Sally Goodell / IDHW
Title: *Memo regarding saturated paste versus slurry method*

Document No.: 2.04.03 005 02/27/91 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Response to comments on revision 3, Draft, 1987 Soil Cores Data Summary Report for the Bunker Hill CERCLA Site Populated Areas RI/FS, December 1990*

Document No.: 2.04.03 006 02/27/91 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Final 1987 Soil Cores Data Summary Report*

Document No.: 2.04.03 007 06/20/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: FILE / NA
Title: *EPTOX Characterization of Residential Soils at the Bunker Hill Superfund Site*

Document No.: 2.04.03 008 01/02/91 **Pages:** 14 **Confidential?** N
From/Orgnztn: Raleigh Farlow/Sally Martyn / EPA
To / Orgnztn: Memo regarding comparability of pesticides monitoring results i
Title:

Document No.: 2.04.04 001 12/18/89 **Pages:** 12 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding Phase II RI field activity*

Document No.: 2.04.04 002 05/07/90 **Pages:** 11 **Confidential?** N
From/Orgnztn: Jeff Franklin, Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding XRF and laboratory data results from Phase II remedial investigation samples*

Document No.: 2.04.04 003 09/01/90 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Phase II Remedial Investigation Data Summary Report*

Document No.: 2.04.04 004 09/24/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to comments on the Phase II Data Summary Report*

Document No.: 2.04.04 005 10/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to comments on the Phase II Data Summary Report*

Document No.: 2.04.04 006 10/15/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo responding to comments on the Phase II Data Summary Report*

Document No.: 2.04.04 008 04/02/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Raleigh Farlow / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo regarding confirmation of Pesticide Identification in Residential Soil Samples from the Bunker Hill RI*

Document No.: 2.04.04 009 03/04/91 **Pages:** 8 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: Addressees / NA
Title: *Corrected appendix for the Phase II Remedial Investigation Data Summary Report*

Document No.: 2.04.04 010 03/21/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / IDHW
To / Orgnztn: Barry Tierney / Pintlar Corporation
Title: *Map: Phase II Sampling locations for streets and Railroad Right-of-ways*

Document No.: 2.04.05 001 12/07/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo regarding House Dust remediation pilot study*

Document No.: 2.04.05 002 02/27/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding Preliminary House Dust Remediation Data*

Document No.: 2.04.05 003 04/26/90 **Pages:** 8 **Confidential?** N
From/Orgnztn: Steve Sedlacek, Jeff Franklin / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding House Dust investigation field activity report*

Document No.: 2.04.05 004 12/06/90 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / IDHW
Title: *House Dust Sampling Analysis Results*

Document No.: 2.04.05 005 12/06/90 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / IDHW
Title: *House Dust Sampling Analysis Results*

Document No.: 2.04.05 006 12/06/90 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / IDHW
Title: *House Dust Sampling Analysis Results*

Document No.: 2.04.05 007 12/06/90 **Pages:** 177 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / IDHW
Title: *House Dust Sampling Analysis Results*

Document No.: 2.04.05 008 12/06/90 **Pages:** 123 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / IDHW
Title: *House Dust Sampling Analysis Results*

Document No.: 2.04.05 009 07/09/87 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn / EPA
Title: *Dust Samples*

Document No.: 2.04.05 010 03/22/91 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Draft House Dust Remediation Report*

Document No.: 2.04.05 011 05/01/91 **Pages:** 80 **Confidential?** N
From/Orgnztn: N/A / CH2M Hill
To / Orgnztn: N/A / IDHW
Title: *Final: House Dust Remediation Report*

Document No.: 2.04.05 012 07/15/91 **Pages:** 7 **Confidential?** Y
From/Orgnztn: Fritz R. Dixon/Robert Hanson / IDHW
To / Orgnztn: Residents / N/A
Title: *House Dust Homeowner Letters RE: Lead concentrations*

Document No.: 2.05 001 09/17/86 **Pages:** 12 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Site Personnel Protection and Safety Plan*

Document No.: 2.05 002 10/30/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Ron Blair / USEPA
To / Orgnztn: Wayne Grotheer / IDHW
Title: *Memo: Comments on the BH RI/FS Site personnel Health and Safety Plan*

Document No.: 2.05 003 07/08/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Dede Montgomery / USEPA
To / Orgnztn: Sally Martyn / IDHW
Title: *Memo: Comments on the CH2M Hill Health and Safety Plan for BH*

Document No.: 2.06 003 07/09/87 **Pages:** 9 **Confidential?** N
From/Orgnztn: J. Winston Porter / EPA
To / Orgnztn: Addressees / NA
Title: *Interim guidance on compliance with ARARs*

Document No.: 2.06 004 02/13/89 **Pages:** 30 **Confidential?** N
From/Orgnztn: John Brueck / IDHW
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo regarding disposal ARARs*

Document No.: 2.06 005 10/17/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Thomas Green / Idaho State Historical Scty.
To / Orgnztn: John Meyer / EPA
Title: *Letter regarding the eligibility of the Bunker Hill Mine Complex to the National Register of Historic Places*

Document No.: 2.06 006 06/20/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Curt Fransen / IDHW
Title: *Internal memo requesting legal council review of state Applicable, Relevant, and Appropriate Requirements (ARARs)*

Document No.: 2.06 007 11/11/11 **Pages:** 8 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Applicable or relevant and appropriate requirements protocol*

Document No.: 2.06 008 11/11/11 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / EPA
Title: *Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites*

Document No.: 2.06 009 06/28/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Joe Gerick, Steve Sedlacek / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Memo and attachments regarding disposal ARARs*

Document No.: 2.06 010 09/28/90 **Pages:** 11 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Don Watts / State Historic Preservation
Title: *Letter and attachments following up telephone conversation of 09/14/90*

Document No.: 2.06 012 01/03/91 **Pages:** 4 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Rob Hanson / IDHW
Title: *Federal ARARs for Residential Soils Focused Feasibility Study*

Document No.: 2.06 014 12/27/90 **Pages:** 12 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter transmitted Federal ARARs for Residential Soils Focused Feasibility Study*

Document No.: 2.06 015 04/18/89 **Pages:** 77 **Confidential?** N
From/Orgnztn: John Meyer / EPA
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter and attachments regarding the draft report identifying potential Applicable or Relevant and Appropriate Requirements*

Document No.: 2.06 016 09/28/90 **Pages:** 10 **Confidential?** N
From/Orgnztn: Sally Martyn / USEPA
To / Orgnztn: Tom Reinecker / Idaho Dept. of Fish and Game
Title: *Follow up telephone conversation with Beth Feeley regarding threatened or endangered species*

Document No.: 2.06 017 10/10/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry M. Conley / Idaho Fish and Game
To / Orgnztn: Sally Martyn / USEPA
Title: *Concerns wished to be addressed during the cleanup process*

Document No.: 2.06 018 03/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Sally Martyn / USEPA
Title: *Request for EPA support for developing federal ARARs for Res. Soils*

Document No.: 2.06 019 12/14/90 **Pages:** 8 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Sally Martyn / USEPA
Title: *Inform EPA that the State Attorneys General Office has performed the ARARs analysis*

Document No.: 2.07 001 10/18/90 **Pages:** 400 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Risk Assessment Data Evaluation Report*

Document No.: 2.07 002 01/16/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: John Lincoln / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding Bunker Hill Populated Areas FS*

Document No.: 2.07 003 01/01/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: Kevin Oates / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memorandum regarding Revision 2 Draft Residential Soil Focused Feasibility Study for Bunker Hill*

Document No.: 2.07 004 04/01/91 **Pages:** 250 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Residential Soil Feasibility Study for Bunker Hill CERCLA Site Populated Areas RI/FS Volumes I & II*

Document No.: 2.08 001 04/26/91 **Pages:** 12 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / IDHW
Title: *Proposed Plan for Cleanup of Residential Soil within the Populated Areas of the Bunker Hill Superfund Site*

Document No.: 2.08 002 04/23/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Don R. Clay / USEPA
To / Orgnztn: Dana Rasmussen / USEPA
Title: *Consultation of Residential Soil-Lead Action Level and Proposed Remedy for the Bunker Hill Superfund Site*

Document No.: 2.08 003 05/15/91 **Pages:** 5 **Confidential?** N
From/Orgnztn: Cliff Roberts / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *BH Res. Soils FS-- Clay Liner Cost Options*

Document No.: 2.09 004 11/11/11 **Pages:** 23 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Site Safety Plan*

Document No.: 2.10 001 01/01/89 **Pages:** 47 **Confidential?** N
From/Orgnztn: NA / PEI Associates, Inc.
To / Orgnztn: NA / EPA
Title: *Draft Report, Evaluation of Underground Disposal of Bunker Hill Superfund Waste*

Document No.: 2.10 002 04/07/89 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Draft Disposal Assessment*

Document No.: 2.10 003 12/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jim Kuenzli, Steve Sedlacek / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding Page Ponds Disposal site*

Document No.: 2.10 004 01/09/90 **Pages:** 20 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Project Team / NA
Title: *Distribution of draft Page Ponds Disposal Design*

Document No.: 2.10 005 01/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Edward Anson / Witherspoon, Kelley, Davenport,TO
Title: *Letter addressing some legal issues of disposal at Page Ponds*

Document No.: 2.10 006 06/19/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Edwards Anson / Witherspoon, Kelley, Davenport,TO
Title: *Letter and attachments regarding final Access Agreement for the EPA's use of Page Ponds sewage treatment plant property*

Document No.: 2.10 007 06/20/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Project Team / NA
Title: *Letter and attachments regarding memo on EPTOX characterization of residential soils at the Bunker Hill Superfund Site*

Document No.: 2.10 009 05/03/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Carl Mattingly / South Fork Sewer District
Title: *Letter discussing possibility of utilizing Page Ponds area as a potential site for disposal of residential soils*

Document No.: 2.10 010 05/08/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter and attachments regarding Disposal Assessment*

Document No.: 2.10 011 06/01/90 **Pages:** 160 **Confidential?** N
From/Orgnztn: N/A / Dames S. Moore
To / Orgnztn: N/A / N/A
Title: *Task 7.0 Page Pond Data Evaluation Report*

Document No.: 2.11 002 04/06/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Steve Sedlacek, John Lincoln / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo regarding institutional controls for the feasibility study*

Document No.: 2.11 003 06/07/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Memo regarding Institutional Controls*

Document No.: 2.11 004 06/28/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: 38 addresses / NA
Title: *Memo regarding Institutional controls, asking that all digging or grading work be coordinated through Jerry Cobb or Scott Peterson to minimize recontamination*

Document No.: 2.11 005 09/22/90 **Pages:** 23 **Confidential?** N
From/Orgnztn: Gale Allen / NA
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter and attachments regarding the Institutional Controls Outline*

Document No.: 2.11 006 01/14/90 **Pages:** 6 **Confidential?** N
From/Orgnztn: Kevin Oates / EPA
To / Orgnztn: Sally Martyn / EPA
Title: *Memo regarding review of Draft Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site dated 12/14/90*

Document No.: 2.11 007 01/22/91 **Pages:** 300 **Confidential?** N
From/Orgnztn: NA / Panhandle Health District
To / Orgnztn: NA / NA
Title: *Draft of evaluation of institutional controls for the populated areas of the Bunker Hill Superfund Site*

Document No.: 2.11 008 01/25/91 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / Panhandle Health District
To / Orgnztn: NA / IDHW
Title: *Draft Evaluation of Institutional Controls for the Populated Areas of the Bunker Hill Superfund Site*

Document No.: 2.11 009 09/15/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn / EPA
Title: *August 19, 1987 Institutional Controls Workshop with City Officials*

Document No.: 2.11 010 06/26/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Wayne Grotheer / IDHW, EPA
Title: *Status of Land Use Planning Efforts by the Cities and Counties in the Bunker Hill Superfund Site*

Document No.: 2.11 011 06/26/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Jim Vergobbi, Chairman / Shoshone County Commissioners
Title: *Letter asking for cooperation on Bunker Hill Site*

Document No.: 2.11 013 03/06/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *Elected official meeting: Institutional Controls*

Document No.: 2.11 014 03/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Addressees / NA
Title: *Institutional Control Report*

Document No.: 2.11 015 03/15/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *Shoshone County Board of Realtors: Institutional Controls*

Document No.: 2.11 016 03/06/91 **Pages:** 10 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Mailing of the Evaluation of Institutional Controls for the Populated areas of the Bunker Hill site*

Document No.: 2.11 019 04/11/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *Institutional Controls Meeting: Shoshone County Planning and Zoning*

Document No.: 2.11 020 04/10/91 **Pages:** 10 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Institutional Controls Meeting: Different Locations*

Document No.: 2.11 069 03/21/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Richard L. Moore / US Dept. of HUD
To / Orgnztn: William Y. Nishimura / HUD
Title: *Memo: Recommendations from HUD to continue mortgage*

Document No.: 2.11 070 06/25/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Thomas Dunne / USEPA
To / Orgnztn: Richard Bauer / US Dept. HUD
Title: *Follow up letter of meeting regarding the status of cleanup efforts*

Document No.: 2.11 071 04/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / US EPA - IDHW
Title: *Institutional Controls Meeting: Kellogg Chamber of Commerce*

Document No.: 2.11 072 04/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / US EPA - IDHW
Title: *Institutional Controls Meeting: Kellogg Kiwanis*

Document No.: 2.11 074 06/10/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Rob Hanson / US EPA - IDHW
Title: *Institutional Controls Meeting: Washington Water Power, Non Populated Areas, City of Smelterville, and City of Pinehurst.*

Document No.: 2.11 076 07/25/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / USEPA, IDHW
Title: *Listing of Institutional controls meeting summaries*

Document No.: 2.12 001 01/29/90 **Pages:** 100 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Raleigh Farlow / Jacobs Engineering
Title: *Letter and attachments regarding blood lead data and children tested during 1980*

Document No.: 2.12 002 02/06/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Harlal Choudhury / USEPA
To / Orgnztn: Sally Martyn / USEPA
Title: *Utilization of uptake/Biokinetic Lead Model of the BH SF Site*

Document No.: 2.12 003 10/18/90 **Pages:** 400 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Risk Assessment Data Evaluation Report (See Document No. 2.7 001)*

Document No.: 2.12 004 08/01/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Marlene Berg / USEPA
To / Orgnztn: Rob Elias / USEPA
Title: *Memo RE: Risk Assessment for the BH Site*

Document No.: 2.15 001 07/26/88 **Pages:** 40 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Spectral Reflectance Imagery Technical Memorandum*

Document No.: 2.15 002 06/01/89 **Pages:** 350 **Confidential?** N
From/Orgnztn: NA / Soil Conservation Service
To / Orgnztn: NA / NA
Title: *Interim Soil Survey of Silver Valley Area, Idaho*

Document No.: 2.16 001 01/18/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Mike Thomas / IDHW
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo commenting on the review of 12/29/89 meeting on recontamination of remediated areas at Bunker Hill*

Document No.: 2.16 002 11/11/11 **Pages:** 26 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Technical memorandum: Lead Accumulation in Unsaturated Soils, Bunker Hill Superfund Site*

Document No.: 2.16 003 01/16/90 **Pages:** 11 **Confidential?** N
From/Orgnztn: John Lincoln / CH2M Hill
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo on recontamination of remediated areas at Bunker Hill*

Document No.: 2.16 004 02/03/89 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / Dames & Moore
To / Orgnztn: NA / NA
Title: *Preliminary Assessment of Recontamination Sampling Survey Results -- EEPC comments*

Total Documents In Group: 331

DOCUMENT GROUP: 3.0

Document No.: 3.01 001 05/20/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: Grech F. Schmidt / USEPA
To / Orgnztn: Elizabeth Temkin / Davis, Graham & Stubbs
Title: *EPAs reply to the May 17, 1991 letter requesting an extension of the public comment period. (Also the referenced letter from Elizabeth Temkin to Allen Bakalian is here)*

Document No.: 3.02 001 08/23/91 **Pages:** 200 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Record of Decision*

Total Documents In Group: 2

DOCUMENT GROUP: 4.0

Document No.: 4.01.00 001 11/11/11 **Pages:** 0 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Parks and Playgrounds Removal 1986 (Fast Track) Administrative Record*

Document No.: 4.01.01 001 06/18/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Chris Pfahl / ASARCO
Title: *Letter requesting access to ASARCO property for Fast Track sampling*

Document No.: 4.01.01 002 02/27/86 **Pages:** 12 **Confidential?** N
From/Orgnztn: Ray C. Givens / Attorney at Law
To / Orgnztn: Ian von Lindern / TerraGraphics
Title: *Letter transmitting Workplan of legal questions and issues to be analyzed*

Document No.: 4.01.01 003 04/07/86 **Pages:** 27 **Confidential?** N
From/Orgnztn: Ray C. Givens / Attorney at Law
To / Orgnztn: NA / NA
Title: *Analysis of various issues regarding the implementation of Fast Track (IRM) at the Bunker Hill Superfund Site*

Document No.: 4.01.01 004 09/15/86 **Pages:** 6 **Confidential?** N
From/Orgnztn: James Everts / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter advising of sampling efforts including Bunker Limited Property*

Document No.: 4.01.01 005 06/23/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: John Lincoln / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter responding to Pintlar sampling of Fast Track sites*

Document No.: 4.01.01 006 08/15/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Georgi Jones / Dept. of Health and Human Service
To / Orgnztn: Joel Mulder / EPA
Title: *Memo Regarding Soil Lead Data for School Yards and Other Locations from the Vicinity of Kellogg, Idaho*

Document No.: 4.01.01 007 09/06/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn / EPA
Title: *Letter from Mervin Hill*

Document No.: 4.01.01 008 03/02/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources & Chemical Co.
Title: *Letter enclosing copy of Focused Feasibility Study for short-term cleanup actions*

Document No.: 4.01.01 009 03/18/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Wayne Grotheer / EPA
Title: *City of Wardner Information Request*

Document No.: 4.01.01 010 02/04/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Wayne Grotheer / IDHW, EPA
Title: *Wardner Road Shoulders*

Document No.: 4.01.01 011 02/04/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter requesting Gulf's involvement in Fast Track*

Document No.: 4.01.01 012 03/06/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Charles Findley / EPA
Title: *Letter requesting data to expedite Gulf's involvement in the RI/FS process*

Document No.: 4.01.01 013 04/08/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: William Boyd / Evans, Keane, Koontz, Boyd&Ripley
To / Orgnztn: Charles Findley / EPA
Title: *Letter requesting data under which Fast Track is justified*

Document No.: 4.01.01 014 04/25/86 **Pages:** 16 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Charles Findley / EPA
Title: *Letter transmitting Gulf's comments on Fast Track projects*

Document No.: 4.01.01 015 05/05/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: William Boyd / Evans, Keane, Koonts, Boyd&Ripley
To / Orgnztn: NA / Silver Valley Task Force
Title: *Letter transmitting Gulf's and Pintlar's comments on Fast Track projects and requesting assistance to obtain data*

Document No.: 4.01.01 016 05/16/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter responding to PRP comments on Fast Track projects*

Document No.: 4.01.01 017 06/09/86 **Pages:** 4 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Charles Findley / EPA
Title: *PRP comments on Fast Track projects*

Document No.: 4.01.02 001 06/03/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Brad Harr / IDHW
Title: *Memo regarding Fast Track -- Interim Remedial Measure Status Report and Initial Sampling Locations*

Document No.: 4.01.02 002 02/13/86 **Pages:** 21 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Project Participant Engineering Recommendations for Bunker Hill Public IRM Sites in Smelterville*

Document No.: 4.01.02 003 03/21/86 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Quality Assurance Project Plan*

Document No.: 4.01.02 004 09/10/86 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / TerraGraphics
To / Orgnztn: NA / NA
Title: *QAPP for Bunker Hill RI/FS Residential Soils Survey*

Document No.: 4.01.02 005 11/11/11 **Pages:** 7 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Short and Long Term Lead Exposure Reduction in Kellogg, Idaho*

Document No.: 4.01.02 006 11/11/11 **Pages:** 17 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Bunker Hill RI/FS Fast Track Sampling Protocols Deep-Core IRM Construction sites*

Document No.: 4.01.02 008 11/03/86 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / TerraGraphics
To / Orgnztn: NA / IDHW
Title: *Interim Remedial Measures Program Fugitive Dust Source Sampling and Monitoring Protocols, Volume II*

Document No.: 4.01.02 009 08/14/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Don Caniparoli / CH2M Hill
To / Orgnztn: Bryan Johnson / IDHW
Title: *Bunker Hill RI/FS Ambient Air Monitoring*

Document No.: 4.01.02 010 11/11/11 **Pages:** 25 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Air Quality and Fugitive Dust Monitoring for the Bunker Hill Site Interim Remedial Measures*

Document No.: 4.01.02 011 10/20/86 **Pages:** 28 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Fugitive Dust Monitoring and Source Sampling Protocols; Bunker Hill Site RI/FS - IRM Program*

Document No.: 4.01.02 012 11/03/86 **Pages:** 500 **Confidential?** N
From/Orgnztn: NA / TerraGraphics
To / Orgnztn: NA / IDHW
Title: *Bunker Hill Site RI/FS IRM Fugitive Dust Source Sampling and Monitoring Protocols Volume II*

Document No.: 4.01.02 901 07/25/85 **Pages:** 2 **Confidential?** Y
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Brad Harr / IDHW
Title: *Letter detailing private site sampling for Fast Track*

Document No.: 4.01.02 902 11/11/11 **Pages:** 2 **Confidential?** Y
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Sampling Site Identification Codes*

Document No.: 4.01.02 903 09/13/85 **Pages:** 46 **Confidential?** Y
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Brad Harr / IDHW
Title: *Memo regarding Fast Track -- Interim Remedial Measures status report and private site sampling locations*

Document No.: 4.01.03 001 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S009*

Document No.: 4.01.03 002 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S010*

Document No.: 4.01.03 003 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S011*

Document No.: 4.01.03 004 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S012*

Document No.: 4.01.03 005 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S015*

Document No.: 4.01.03 006 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S013*

Document No.: 4.01.03 007 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S019*

Document No.: 4.01.03 008 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S014*

Document No.: 4.01.03 009 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S020*

Document No.: 4.01.03 010 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S016*

Document No.: 4.01.03 011 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S022*

Document No.: 4.01.03 012 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S023*

Document No.: 4.01.03 013 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S024*

Document No.: 4.01.03 014 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S025*

Document No.: 4.01.03 015 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S017*

Document No.: 4.01.03 016 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S018*

Document No.: 4.01.03 017 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S028*

Document No.: 4.01.03 018 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S029*

Document No.: 4.01.03 019 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S031*

Document No.: 4.01.03 020 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S021*

Document No.: 4.01.03 021 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S004*

Document No.: 4.01.03 022 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S006*

Document No.: 4.01.03 023 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Rack sample S008*

Document No.: 4.01.03 024 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S007*

Document No.: 4.01.03 025 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S049*

Document No.: 4.01.03 026 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S050*

Document No.: 4.01.03 027 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S038*

Document No.: 4.01.03 028 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S051*

Document No.: 4.01.03 029 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S040*

Document No.: 4.01.03 030 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S052*

Document No.: 4.01.03 031 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S042*

Document No.: 4.01.03 032 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S053*

Document No.: 4.01.03 033 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S044*

Document No.: 4.01.03 034 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S054*

Document No.: 4.01.03 035 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S046*

Document No.: 4.01.03 036 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S055*

Document No.: 4.01.03 037 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S048*

Document No.: 4.01.03 038 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S056*

Document No.: 4.01.03 039 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S039*

Document No.: 4.01.03 040 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S043*

Document No.: 4.01.03 041 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S047*

Document No.: 4.01.03 042 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S005*

Document No.: 4.01.03 043 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S041*

Document No.: 4.01.03 044 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S003*

Document No.: 4.01.03 045 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S002*

Document No.: 4.01.03 046 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S001*

Document No.: 4.01.03 047 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample N003S*

Document No.: 4.01.03 048 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample N002S*

Document No.: 4.01.03 049 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S035*

Document No.: 4.01.03 050 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S036*

Document No.: 4.01.03 051 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample N001S*

Document No.: 4.01.03 052 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S037*

Document No.: 4.01.03 053 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S033*

Document No.: 4.01.03 054 08/23/85 Pages: 14 Confidential? N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S034*

Document No.: 4.01.03 055 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S032*

Document No.: 4.01.03 056 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S026*

Document No.: 4.01.03 057 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S027*

Document No.: 4.01.03 058 08/23/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track sample S045*

Document No.: 4.01.03 059 09/09/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / Silver Valley Laboratories
To / Orgnztn: NA / IDHW
Title: *Data package for Fast Track samples*

Document No.: 4.01.03 060 05/28/86 **Pages:** 24 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track samples S150-S154, B150*

Document No.: 4.01.03 061 06/02/86 **Pages:** 28 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data package for Fast Track samples A0001-A0016*

Document No.: 4.01.03 062 11/11/11 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Chain-of-custody forms for Fast Track samples*

Document No.: 4.01.04 001 09/01/86 **Pages:** 300 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Federal On-Scene Coordinator's (OSC) Report, Bunker Hill Initial Removal Action, Kellogg, Idaho*

Document No.: 4.01.05 001 05/28/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gary Damiano / Pinehurst Chamber of Commerce
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter commenting on temporary disposal site on Department of Transportation land*

Document No.: 4.01.05 002 06/05/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Phillip Millam / EPA
To / Orgnztn: Gary Damiano / Pinehurst Chamber of Commerce
Title: *Letter responding to comments on the temporary storage of contaminated soil on Department of Transportation land*

Document No.: 4.01.05 003 06/10/86 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Memorandum Of Understanding between EPA and IDHW regarding the temporary storage of hazardous substances removed from various locations at the Bunker Hill Site*

Document No.: 4.01.05 004 02/07/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Carl Mattingly / South Fork Sewer District
Title: *Letter discussing meeting concerning sewer district needs with proposed IRM activities at South Fork*

Document No.: 4.01.05 005 04/13/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Jim Willman / EPA
Title: *Letter concerning Temporary Storage Facility during summer of 1986*

Document No.: 4.01.06 001 03/19/86 **Pages:** 300 **Confidential?** N
From/Orgnztn: NA / Woodwards-Clyde Consultants
To / Orgnztn: NA / NA
Title: *Bunker Hill Superfund Site: Initial Remedial Measures Focus Feasibility Measures*

Document No.: 4.02.00 001 11/11/11 **Pages:** 0 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Residential Soils Removal 1989 and 1990 Administrative Record*

Document No.: 4.02.01 001 04/07/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Letter transmitting telephone record of U.S. Fish and Wildlife Service's comments on EEPC*

Document No.: 4.02.01 002 06/01/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jim Anderson / private citizen
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter refusing soils removal on his property*

Document No.: 4.02.01 003 10/31/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter urging negotiations with prospective property owners at the Bunker Hill site*

Document No.: 4.02.01 004 06/28/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: NA / Branson United Steel Building Inc
Title: *Letter regarding blood lead samples in children*

Document No.: 4.02.01 005 02/06/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: John Meyer / EPA
Title: *Letter transmitting maps and listing soil lead levels and corresponding ages of children residing there*

Document No.: 4.02.01 006 04/12/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Curt Fransen / IDHW
To / Orgnztn: Leslie Weatherhead / Witherspoon, Kelley, Davenport,TO
Title: *Letter confirming receipt of comments on EEPC*

Document No.: 4.02.01 007 02/27/89 **Pages:** 16 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter and attachments regarding comments on draft Technical Specifications for Phased Cleanup -- 1989*

Document No.: 4.02.01 008 03/07/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter responding to Pintlar comments on draft EEPC*

Document No.: 4.02.01 009 03/30/89 **Pages:** 300 **Confidential?** N
From/Orgnztn: Gulf's Contractors / NA
To / Orgnztn: NA / NA
Title: *Comments of Gulf's contractors on EEPC*

Document No.: 4.02.01 010 03/31/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Witherspoon, Kelley, Davenport,TO
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on EEPC*

Document No.: 4.02.01 011 05/02/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Richard Donovan, Robie Russell / IDHW, EPA
Title: *Letter outlining Gulf's alternative removal action*

Document No.: 4.02.01 012 05/12/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: John Meyer / EPA
Title: *Letter offering to do alternate action at Bunker Hill than EPA's proposed soils removal program*

Document No.: 4.02.01 013 06/07/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Cheryl Koshuta / IDHW
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter refusing Gulf's alternate removal program as inadequate to achieve objectives on site*

Document No.: 4.02.01 014 07/19/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: John Meyer / EPA
Title: *Letter commenting on effectiveness of proposed 1989 Removal Action*

Document No.: 4.02.01 015 07/20/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Cheryl Koshuta, Charles Findley / IDHW, EPA
Title: *Letter emphasizing willingness to discuss funding mechanisms for the 1989 Removal Action*

Document No.: 4.02.01 016 03/30/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Joe Gerick / CH2M Hill
To / Orgnztn: Sally Goodell / IDHW
Title: *Responses to Memorandum of Law on the Bunker Hill Engineering Evaluation of Phased Cleanup (EE/PC) Report*

Document No.: 4.02.01 017 01/16/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter regarding detailed cost estimates for two scenarios of the 1989 cleanup*

Document No.: 4.02.02 001 04/24/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Project Team / NA
Title: *Letter and attachments transmitting Field Sampling Plan for the 1989 Removal Action EP Toxicity Tests*

Document No.: 4.02.02 002 01/01/01 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Consent Form for access to property*

Document No.: 4.02.03 001 12/07/89 **Pages:** 11 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data validation for 1989 Removal Action samples RRW-001 to RRW-004*

Document No.: 4.02.03 002 12/08/89 **Pages:** 94 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data Validation for 1989 Removal Action samples RRE-0-6 and RRE-6-12*

Document No.: 4.02.03 003 12/11/89 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data validation for 1989 Removal Action samples RRL-001 to RRL-020*

Document No.: 4.02.03 004 12/12/89 **Pages:** 11 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data validation for 1989 Removal Action samples RRL-021 to RRL-024, RRL-027*

Document No.: 4.02.03 005 12/13/89 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data validation for 1989 Removal Action samples RRS-001 to RRS-020*

Document No.: 4.02.03 006 12/13/89 **Pages:** 150 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Data validation for 1989 Removal Action samples RRS-021 to RRS-026, RRS-029*

Document No.: 4.02.03 007 12/15/90 **Pages:** 300 **Confidential?** N
From/Orgnztn: Ebasco Environmental / Ebasco Services Incorporated
To / Orgnztn: Rob Hanson / IDHW
Title: *Bunker Hill Superfund Site Yard Sampling Program Summary Worksheets*

Document No.: 4.02.03 008 01/25/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Lee / TerraGraphics
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter enclosing table of analytical results for yards remediated in 1989*

Document No.: 4.02.03 008 05/22/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *PRP Split Sample Results*

Document No.: 4.02.04 001 01/01/90 **Pages:** 300 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *On-Scene Coordinator's Report for the 1989 Soils Removal Action*

Document No.: 4.02.04 002 01/01/90 **Pages:** 500 **Confidential?** Y
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Property Summary Reports for the 1989 Soils Removal Action (2 volumes)*

Document No.: 4.02.04 003 03/01/91 **Pages:** 47 **Confidential?** N
From/Orgnztn: David Byers / Ecological and Environment, Inc.
To / Orgnztn: NA / NA
Title: *Final On-Scene Coordinators Report*

Document No.: 4.02.05 001 03/19/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Cecil D. Andrus / IDHW
To / Orgnztn: Robie Russel / EPA
Title: *Letter urging EPA to eliminate the fugitive dust problem*

Document No.: 4.02.05 002 07/18/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo regarding Windblown dust event*

Document No.: 4.02.05 003 05/30/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Charles Moss / IDHW
Title: *Letter requesting IDHW to control windblown dust in the Silver Valley*

Document No.: 4.02.05 004 07/17/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Philip Millam / EPA
To / Orgnztn: Fritz Rennebaum / Bureau of Land Management
Title: *Letter requesting BLM to control fugitive dust on their property on Smelterville Flats*

Document No.: 4.02.05 005 08/07/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Charles Findley / EPA
Title: *Letter coordinating IDHW/EPA effort to control fugitive dust*

Document No.: 4.02.05 006 03/22/90 **Pages:** 8 **Confidential?** N
From/Orgnztn: Mert Lombard / BLM
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter and attachments regarding draft rehabilitation plan for the public lands on Smelterville Flats*

Document No.: 4.02.05 007 04/06/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Mike Thomas / IDHW
To / Orgnztn: Dave Fortier / BLM
Title: *Letter regarding BLM Smelterville Flats rehabilitation plan*

Document No.: 4.02.05 008 04/10/90 **Pages:** 40 **Confidential?** N
From/Orgnztn: Mert Lombard / BLM
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter and attachments regarding draft Bunker Hill Site Safety and Health Plan for activities on Smelterville Flats*

Document No.: 4.02.05 009 06/14/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Scott Peterson / IDHW
To / Orgnztn: Rob Hanson / IDHW
Title: *Fugitive Dust Control Measures at Mine Timber and Silver Valley Truck Stop, Smelterville Flats*

Document No.: 4.02.05 010 07/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Summary of meeting on June 28, 1989 for BLP*

Document No.: 4.02.05 011 06/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Requesting cooperation in controlling fugitive dust emissions*

Document No.: 4.02.05 013 07/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter transmitting summary of information exchange at 6/28/89 meeting between EPA, BLP, and IDHW*

Document No.: 4.02.05 014 06/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Request for continued cooperation in controlling emissions*

Document No.: 4.02.06 001 02/01/89 **Pages:** 200 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / NA
Title: *Engineering Evaluation for Phased Cleanup -- 1989*

Document No.: 4.02.06 002 10/02/89 **Pages:** 53 **Confidential?** N
From/Orgnztn: NA / CH2M Hill
To / Orgnztn: NA / IDHW
Title: *Summary of responses to EEPC*

Document No.: 4.02.06 003 02/01/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of Proposed Action*

Document No.: 4.02.06 004 03/31/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn - Sally Goodell / USEPA - IDHW
Title: *Comments on EEPC*

Document No.: 4.02.07 001 05/03/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Fred Owsley / ASARCO
Title: *Letter regarding disposal on Page Ponds*

Document No.: 4.02.07 002 06/13/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Cheryl Koshuta / IDHW
To / Orgnztn: James Everts / EPA
Title: *Letter discussing temporary disposal storage on IDHW land*

Document No.: 4.02.07 003 07/27/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Cheryl Koshuta / IDHW
To / Orgnztn: James Everts / EPA
Title: *Letter discussing temporary disposal storage on IDHW land*

Document No.: 4.02.07 004 08/21/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: James Everts / EPA
To / Orgnztn: Cheryl Koshuta / IDHW
Title: *Letter discussing temporary storage on IDHW land of soils, etc. generated during Removal Actions*

Document No.: 4.02.07 005 04/13/90 **Pages:** 7 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Edward Anson / Witherspoon, Kelley, Davenport,TO
Title: *Letter transmitting proposed Access Agreement regarding Page Ponds sewage treatment plant property*

Document No.: 4.02.07 006 03/25/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Nic Ceto / EPA
To / Orgnztn: Rob Hanson / IDHW
Title: *Disposition of Summer Removal Soils*

Document No.: 4.02.07 007 11/23/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Fred Owsley / Northwest Mining Dept.
Title: *Letter regarding soils disposal in Kellogg-Smelterville areas*

Document No.: 4.02.07 008 05/03/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Fred Owsley / Northwest Mining Dept.
Title: *Regarding Page Ponds as disposal site*

Document No.: 4.02.07 009 03/25/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Nick Ceto / EPA
To / Orgnztn: Rob Hanson / IDHW
Title: *Bunker Hill Superfund Site Disposition of Summer Removal soils*

Document No.: 4.03.01 001 06/27/91 **Pages:** 4 **Confidential?** Y
From/Orgnztn: Gerald B. Lee / Terragraphics
To / Orgnztn: Rob Hanson / IDHW
Title: *List of homes slated for remediation for 1991 (with detailed child data)*

Document No.: 4.03.01 002 06/25/91 **Pages:** 11 **Confidential?** N
From/Orgnztn: John Meyer / U.S. EPA
To / Orgnztn: Trey Harbert / Pintlar Corporation
Title: *Bunker Hill Summer '91 Scope of Work*

Document No.: 4.03.01 003 07/02/91 **Pages:** 21 **Confidential?** N
From/Orgnztn: John Meyer / US EPA
To / Orgnztn: H.P. Trey Harbert / Pintlar Corporation
Title: *Administrative Order on Consent. Bunker Hill Summer '91 Work Plans.*

Document No.: 4.03.01 004 04/18/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Trey Harbert / Pintlar Corporation
Title: *Letter introducing a list of properties slated for remediation for '91.*

Document No.: 4.03.01 006 06/27/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Larry Drew / Hecla Mining Co.
Title: *Additional information about the sieving of Res. Soil Samples.*

Document No.: 4.03.01 007 06/25/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar Corp.
Title: *Deliverable RI/FS Documents per Pintlar v. Donovan. Sampling and analysis plan for 1991 Pre-remediation Sampling.*

Document No.: 4.03.01 008 11/11/11 **Pages:** 4 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: N/A / All PRP's
Title: *Sampling and Analysis Plan for 1991 Pre-remediation Sampling.*

Document No.: 4.03.01 010 06/21/91 **Pages:** 4 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Trey Harbert / Pintlar Corporation
Title: *CH2M Hill comments on PRP Residential Soil Sampling effort.*

Document No.: 4.03.02 001 06/26/91 **Pages:** 9 **Confidential?** N
From/Orgnztn: N/A / PRP's
To / Orgnztn: N/A / N/A
Title: *Residential Yard Soil Sampling Plan for 1991 Consent Order.*

Document No.: 4.03.02 002 07/01/91 **Pages:** 1 **Confidential?** N
From/Orgnstn: N/A / IDHW
To / Orgnstn: Residents / N/A
Title: *Consent for access to property*

Total Documents In Group: 169

DOCUMENT GROUP: 5.0

Document No.: 5.01 002 05/02/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter notifying Gulf Resources and Chemical Co. of Potentially Responsible Party status for Removal Action 1989*

Document No.: 5.01 003 05/02/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter notifying Bunker Limited Partnership of Potentially Responsible Party status for Removal Action 1989*

Document No.: 5.01 004 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Sam Russo / Stauffer Chemical Company
Title: *Notice letter of potentially responsible party status to Stauffer Chemical Company*

Document No.: 5.01 005 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Arthur Brown / Hecla Mining Company
Title: *Notice letter of potentially responsible party status of Hecla Mining Company*

Document No.: 5.01 006 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Hill Mining Company, Inc.
Title: *Notice letter of potentially responsible party status to Bunker Hill Mining Company, Inc.*

Document No.: 5.01 007 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Syringa Minerals Corporation
Title: *Notice letter of potentially responsible party status to Syringa Minerals Corporation*

Document No.: 5.01 008 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Notice letter of potentially responsible party status to Bunker Limited Partnership*

Document No.: 5.01 009 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Minerals Corporation of Idaho
Title: *Notice letter of potentially responsible party status to Minerals Corporation of Idaho*

Document No.: 5.01 010 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / BH Properties, Inc.
Title: *Notice letter of potentially responsible party status to BH Properties, Inc.*

Document No.: 5.01 011 02/07/90 **Pages:** 18 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Addressees / NA
Title: *Letter formally notifying PRP status to 7 companies*

Document No.: 5.01 012 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Paula Harrison / Silver Bowl, Inc.
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 013 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: H.F. Magnuson / Highland Surprise Consolidated Min.
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 014 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: William Nicely / Callahan Mining Company
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 015 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Robert Richins / Coeur d'Alene Mines Corporation
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 016 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 017 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Nancy Roberts / Union Pacific Railroad
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 018 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 019 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: F.D. Owsley / ASARCO, Inc.
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 020 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: John Simko / Sunshine Mining Company
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 021 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Sam Russo / Stauffer Chemical Company
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 022 03/05/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Arthur Brown / Hecla Mining Company
Title: *Notice letter regarding 1990 residential removal action*

Document No.: 5.01 023 03/23/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Nancy Roberts / Union Pacific Railroad Company
To / Orgnztn: Charles Findley / EPA
Title: *Letter responding to notice letter of 3/5/90 stating that Union Pacific is still studying its role in the Bunker Hill Site*

Document No.: 5.01 024 03/26/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Michael Thorp / Heller, Ehrman, White, McAuliffe
To / Orgnztn: Sally Martyn / EPA
Title: *Letter from Callahan, Sunshine, Hecla, ASARCO, and Coeur d'Alene Mines responding to 3/5/90 notice letter and declining to commit to cleanup*

Document No.: 5.01 025 03/27/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Sally Martyn / EPA
Title: *Letter responding to notice letter of 3/5/90 and indicating good faith in cleanup effort*

Document No.: 5.01 026 03/27/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Frank Breidt / Bunker Hill Mining Company
To / Orgnztn: Sally Martyn / EPA
Title: *Letter responding to 3/5/90 notice letter joining in BLP's response*

Document No.: 5.01 027 03/27/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jack Kendrick / Bunker Limited Partnership
To / Orgnztn: Sally Martyn / EPA
Title: *Letter responding to notice letter of 3/5/90 denying to participate*

Document No.: 5.01 029 10/18/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter notifying Bunker Limited partnership of potential CERCLA liability, and requesting information*

Document No.: 5.01 030 10/18/84 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Lawrence Mehl / Gulf Resources and Chemical Cor.
Title: *Letter regarding notification of Potential Liability for Metals Contamination of the Environment in the vicinity of the Bunker Hill Smelting and Mining Facilities, Kellogg and Smelterville; Request fo*

Document No.: 5.01 031 01/11/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Richard Mancino / Willkie, Farr & Gallagher
Title: *CERCLA information request*

Document No.: 5.01 032 01/08/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources & Chemical Corp.
To / Orgnztn: Charles Findley / EPA
Title: *Responding to letter dated 12/11/84 addressed to Lawrence Mehl*

Document No.: 5.01 033 09/17/85 **Pages:** 8 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Letter requesting documents from Gulf*

Document No.: 5.01 034 12/02/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Letter requesting answers to stated questions*

Document No.: 5.01 035 12/02/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Sam Russo / Stauffer Chemical Company
Title: *Letter requesting answers to stated questions*

Document No.: 5.01 036 12/05/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Arthur Brown / Hecla Mining Company
Title: *Letter requesting answers to stated questions*

Document No.: 5.01 037 01/11/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Michael Bourque / ICI Americas Inc.
Title: *Cercla Information Request*

Document No.: 5.01 038 01/19/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Witherspoon, Kelley, Davenport&TO
To / Orgnztn: Deborah Gates / EPA
Title: *Information request*

Document No.: 5.01 039 01/26/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Deborah Gates / EPA
To / Orgnztn: Leslie Weatherhead / Witherspoon, Kelley, Davenport&TO
Title: *Response to letter on information request*

Document No.: 5.01 041 12/11/84 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Lawrence Mehl / Gulf Resources and Chemical Corp.
Title: *Responding to information request*

Document No.: 5.01 042 11/08/84 **Pages:** 2 **Confidential?** N
From/Orgnztn: Lawrence Mehl / Gulf Resources and Chemical Corp.
To / Orgnztn: Charles Findley / EPA
Title: *Letter denying potential responsibility*

Document No.: 5.01 043 04/01/85 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Letter requesting information*

Document No.: 5.01 044 04/30/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
To / Orgnztn: Charles Findley / EPA
Title: *Letter responding to information request*

Document No.: 5.01 046 06/05/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Letter requesting further information*

Document No.: 5.01 047 07/03/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
To / Orgnztn: Charles Findley / EPA
Title: *Letter enclosing requested information*

Document No.: 5.01 048 04/04/85 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter requesting information*

Document No.: 5.01 049 04/01/85 **Pages:** 10 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter requesting information*

Document No.: 5.01 050 05/02/85 **Pages:** 50 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Charles Findley / EPA
Title: *Letter transmitting information requested*

Document No.: 5.01 051 03/07/85 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter requesting information*

Document No.: 5.01 052 05/16/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robert Magnuson / Witherspoon, Kelley, Davenport&TO
To / Orgnztn: Charles Findley / EPA
Title: *Letter responding to information request*

Document No.: 5.01 053 03/25/91 **Pages:** 15 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *CERCLA information Request, Bunker Hill Site*

Document No.: 5.01 054 11/11/11 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *List of Bunker Hill Site Potentially Responsible Parties*

Document No.: 5.01 055 04/29/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: James Everts / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter transmitting RI/FS report at Western Processing site in Kent, WA and granting extension for request for information*

Document No.: 5.01 056 10/23/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter requesting information regarding Yoss et al v. The Bunker Hill Company*

Document No.: 5.01 057 12/07/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter requesting information*

Document No.: 5.01 058 03/29/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Addressees / NA
Title: *Letter transmitting data to upstream mines pursuant to 1990 Residential Removal Action*

Document No.: 5.01 059 04/27/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
To / Orgnztn: Wayne Grotheer / EPA
Title: *In regard of GRE's submission of response*

Document No.: 5.01 060 03/07/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Chuck Findley / USEPA
To / Orgnztn: T. Barry Tierney / Pintlar Corp.
Title: *EPA request for information to Pintlar.*

Document No.: 5.01 061 05/02/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar Co.
To / Orgnztn: Chuck Findley / USEPA
Title: *Pintlars' response to EPAs' request for information.*

Document No.: 5.01 062 10/18/84 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Lawrence R. Mehl / Gulf Resources and Chemical
Title: *Notification of potential liability of metals contamination of the BH SF Site.*

Document No.: 5.01 063 04/01/85 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *EPA request for information to Gulf Resources and Chemical Co.*

Document No.: 5.01 064 06/05/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter responding to Gulf's letter questioning EPA's request for information.*

Document No.: 5.01 065 09/17/85 **Pages:** 8 **Confidential?** N
From/Orgnztn: Chuck E. Findley / USEPA
To / Orgnztn: Gene M. Baker / Gulf Resources and Chemical
Title: *Request for certain documents listed in Gulf's letter of July 3, 1985.*

Document No.: 5.01 066 10/23/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / USEPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical
Title: *Request for specific information*

Document No.: 5.01 067 12/07/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Robie Russell / USEPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Request for information*

Document No.: 5.01 068 12/02/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical
Title: *Request for information*

Document No.: 5.01 069 11/08/84 **Pages:** 1 **Confidential?** N
From/Orgnztn: Lawrence Mehl / Gulf Resources and Chemical
To / Orgnztn: Chuck Findley / USEPA
Title: *Letter from Gulf denying any responsibility of liability.*

Document No.: 5.01 070 12/11/84 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Lawrence Mehl / Gulf Resources and Chemical
Title: *EPA's response to Gulf's claim that it is not potentially responsible.*

Document No.: 5.01 071 01/08/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Gene M. Baker / Gulf Resources and Chemical
To / Orgnztn: Charles Findley / USEPA
Title: *Letter addressing lack of information in the records which would aid the EPA.*

Document No.: 5.01 072 04/15/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: James M. Everts / USEPA
To / Orgnztn: Gene M. Baler / Gulf Resources and Chemical
Title: *Re-emphasis of desire to obtain relevant information form Gulf.*

Document No.: 5.01 073 04/30/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Gene M. Baker / Gulf Resources and Chemical
To / Orgnztn: Charles Findley / USEPA
Title: *Response to April 1, 1985 letter concerning GRE files.*

Document No.: 5.01 074 07/03/85 **Pages:** 15 **Confidential?** N
From/Orgnztn: Gene M. Baker / Gulf Resources and Chemical
To / Orgnztn: Charles E. Findley / USEPA
Title: *Cover letter for information requested by EPA in a letter dated June 5, 1985.*

Document No.: 5.01 075 11/11/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Wayne Grotheer / USEPA
Title: *Decline to produce requested information.*

Document No.: 5.01 076 12/22/87 **Pages:** 7 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: John Meyer / USEPA
Title: *Letter responding to EPA's request for information dated 12-7-87.*

Document No.: 5.01 077 12/23/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Allen Bakalian / USEPA
Title: *Response to EPA request.*

Document No.: 5.01 078 02/01/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: John Meyer / USEPA
Title: *Response to EPA request for information dated December 7, 1987*

Document No.: 5.01 079 01/29/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Richard Mancino / Gulf Resources and Chemical
Title: *Letter responding to EPA's December 7, 1987 request for information.*

Document No.: 5.01 080 02/25/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Allen Bakalian / USEPA
Title: *Response to EPA request dated December 7, 1987.*

Document No.: 5.01 081 03/03/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Richard Mancino / Gulf Resources and Chemical
Title: *Response to EPA request dated 12-7-87.*

Document No.: 5.01 082 03/14/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Allen Bakalian / USEPA
Title: *EPA request for information dated 12-7-87.*

Document No.: 5.01 083 03/21/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Lawrence Mehl / Gulf Resources and Chemical
To / Orgnztn: Allen Bakalian / USEPA
Title: *EPA request for information dated December 7, 1987*

Document No.: 5.01 084 03/28/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Richard Mancino / Gulf Resources and Chemical
Title: *Request for information dated 12-7-87*

Document No.: 5.01 085 05/06/88 **Pages:** 10 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Allen Bakalian / USEPA
Title: *EPA information request dated 2-7-87.*

Document No.: 5.01 086 12/28/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Charles Findley / USEPA
Title: *EPA information request dated 12-2-88*

Document No.: 5.01 087 01/11/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Richard Mancino / Gulf Resources and Chemical
Title: *EPA information request dated 12-2-88*

Document No.: 5.01 088 01/31/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Charles Findley / USEPA
Title: *EPA information request dated 12-2-88*

Document No.: 5.01 089 01/31/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Charles E. Findley / USEPA
Title: *EPA information request dated 12-2-88*

Document No.: 5.01 090 03/01/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Charles Findley / USEPA
Title: *EPA information request dated 12-2-88*

Document No.: 5.01 091 05/26/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Richard Mancino / Gulf Resources and Chemical
To / Orgnztn: Charles Findley / USEPA
Title: *EPA information request dated 12-2-88*

Document No.: 5.01 092 10/18/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Request for information*

Document No.: 5.01 093 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Hill Properties
Title: *CERCLA general notice letter; Bunker Hill SF Site*

Document No.: 5.01 094 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Properties
Title: *CERCLA general notice letter; BH SF Site*

Document No.: 5.01 095 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Minerals Corporation of Idaho
Title: *CERCLA general notice letter*

Document No.: 5.01 096 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Hill Mining Co.
Title: *CERCLA general notice letter*

Document No.: 5.01 097 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Bunker Hill PRP List*

Document No.: 5.01 098 04/01/85 **Pages:** 8 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Request for information*

Document No.: 5.01 099 07/30/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *EPA expresses concerns about salvage*

Document No.: 5.01 100 08/30/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Request for information regarding salvage*

Document No.: 5.01 101 10/23/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Information request*

Document No.: 5.01 102 07/16/90 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Request for information*

Document No.: 5.01 103 02/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Nancy A. Roberts / Union Pacific Railroad
Title: *CERCLA general notice letter*

Document No.: 5.01 104 07/16/90 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Hill Mining Co.
Title: *CERCLA information request*

Document No.: 5.01 105 03/25/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Duane Hagadone / Bunker Limited Partnership
Title: *CERCLA information request*

Document No.: 5.01 106 03/25/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Harry Magnuson / Bunker Limited Partnership
Title: *CERCLA information request*

Document No.: 5.01 107 03/25/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *CERCLA information request*

Document No.: 5.01 108 05/16/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: Charles Findley / USEPA
Title: *Response to request for information*

Document No.: 5.01 109 06/21/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: Wayne Grotheer / USEPA
Title: *Notification of delay on response to request for information*

Document No.: 5.01 110 06/28/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: James Merrill / USEPA
Title: *Letter from Charles E. Findley dated June 4, 1985*

Document No.: 5.01 111 07/17/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: David Dabroski / USEPA
Title: *Bunker Limited Partnership*

Document No.: 5.01 112 08/02/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: David Dabroski / USEPA
Title: *Bunker Limited Partnership Your reference number M/S 525*

Document No.: 5.01 113 08/05/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: David Dabroski / USEPA
To / Orgnztn: Robert Magnuson / Bunker Limited Partnership
Title: *Names and individuals that are expected to be involved in the site inspections of the smelter facility.*

Document No.: 5.01 114 08/09/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: Charles Findley / USEPA
Title: *Response to letter regarding equipment salvage*

Document No.: 5.01 115 08/21/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: David Dabroski / USEPA
To / Orgnztn: Robert Magnuson / Bunker Limited Partnership
Title: *Response to letter of Aug. 9, 1985 with a copy of documents designating authority to enter and inspect facility to Brad Harr.*

Document No.: 5.01 116 09/05/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robert Magnuson / Bunker Limited Partnership
To / Orgnztn: David Dabroski / USEPA
Title: *Reply to letter of Aug. 21, 1985 advising of BLP and IDHW meeting*

Document No.: 5.01 117 09/12/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Slaughter / Bunker Limited Partnership
To / Orgnztn: Jeffery Ring / USEPA
Title: *Bunker Limited Partnership EPA vs.*

Document No.: 5.01 118 09/16/85 **Pages:** 5 **Confidential?** N
From/Orgnztn: David Dabroski / USEPA
To / Orgnztn: Robert Magnuson / Bunker Limited Partnership
Title: *Response to letters dated Sept. 5 and 12, 1985*

Document No.: 5.01 119 09/17/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jack Kendrick / Bunker Limited Partnership
To / Orgnztn: Wayne Grotheer / USEPA
Title: *Use and disposition of solvents, cleaning or degreasing agents*

Document No.: 5.01 120 11/11/11 **Pages:** 7 **Confidential?** N
From/Orgnztn: N/A / US District Court for District ID
To / Orgnztn: N/A / Bunker Limited Partnership
Title: *Administrative warrant for entry and inspection.*

Document No.: 5.01 121 01/14/86 **Pages:** 22 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Wayne Grotheer / USEPA
Title: *EPA Supplemental information request of Bunker Limited dated Dec. 10, 1985*

Document No.: 5.01 122 04/02/86 **Pages:** 3 **Confidential?** N
From/Orgnztn: David Dabroski / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *Confidentiality determination of documents*

Document No.: 5.01 123 07/08/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: David Heineck / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *In Re Bunker Limited Partnership*

Document No.: 5.01 124 07/10/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: David Heineck / USEPA
Title: *In Re Bunker Limited Partnership Civil case number MS-3096A(D.Idaho)*

Document No.: 5.01 125 08/15/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Deborah Gates / USEPA
Title: *Bunker Limited Partnership Confidentiality request*

Document No.: 5.01 126 08/21/86 **Pages:** 18 **Confidential?** N
From/Orgnztn: James Moore / USEPA
To / Orgnztn: Robert Magnuson / Bunker Limited Partnership
Title: *Records obtained from Bunker Limited Partnership in Fall of 1985 pursuant to a search warrant.*

Document No.: 5.01 127 09/04/86 **Pages:** 3 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Deborah Gates / USEPA
Title: *Response to letter of Aug. 21, 1986*

Document No.: 5.01 128 10/03/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Deborah Gates / USEPA
Title: *Further response to letter of Aug. 21, 1986.*

Document No.: 5.01 129 11/07/86 **Pages:** 5 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Robie Russell / USEPA
Title: *Response to letter stating that they cannot release information that has been sealed by court.*

Document No.: 5.01 130 11/19/86 **Pages:** 4 **Confidential?** N
From/Orgnztn: James Moore / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *Response to letters dated Sept. 4 and Oct. 3, 1986 regarding EPA's ongoing confidential business.*

Document No.: 5.01 131 11/07/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Charles Findley / USEPA
Title: *Response to letter of October 18, 1988*

Document No.: 5.01 132 01/19/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Deborah Gates / USEPA
Title: *Acknowledgement of receipt of letter of Jan. 10, 1989*

Document No.: 5.01 133 01/26/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Deborah Gates / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *Response to letter of Jan. 19, 1989*

Document No.: 5.01 134 02/14/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Deborah Gates / USEPA
Title: *Information unauthorized to be given to a third party was inadvertently delivered.*

Document No.: 5.01 135 07/17/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Barbara Lither / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *Failure to respond to EPA's request for information*

Document No.: 5.01 136 08/25/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Barbara Lither / USEPA
Title: *EPA request for information*

Document No.: 5.01 137 09/11/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *EPA Oct. 18, 1988, CERCLA Section 104 Information request to the Bunker Limited Partnership*

Document No.: 5.01 138 10/13/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
To / Orgnztn: Allen Bakalian / USEPA
Title: *Your letter of Oct. 5, 1989*

Document No.: 5.01 139 05/01/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jackson Fox / USEPA
To / Orgnztn: Leslie Weatherhead / Bunker Limited Partnership
Title: *Notice of confidential business information determination concerning Bunker Limited Partnership's response to EPA's October 18, 1988 CERCLA request for information*

Document No.: 5.01 140 08/15/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Dan E. Meyer / Bunker Hill Mining Co.
To / Orgnztn: Sally Martyn / USEPA
Title: *A rough approximation of the documents assembled for Sally's review.*

Document No.: 5.01 141 04/16/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: H. F. Magnuson / Bunker Limited Partnership
To / Orgnztn: John Meyer / USEPA
Title: *Request for extension for information request*

Document No.: 5.01 142 04/19/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: J. W. Kendrick / Bunker Limited Partnership
To / Orgnztn: Charles Findley / USEPA
Title: *Extension request for requested information*

Document No.: 5.01 143 05/06/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *CERCLA information request*

Document No.: 5.01 144 05/06/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Harry Magnuson / Bunker Limited Partnership
Title: *CERCLA information request*

Document No.: 5.01 145 05/23/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: J. W. Kendrick / Bunker Limited Partnership
To / Orgnztn: Charles Findley / USEPA
Title: *Response to CERCLA information request dated March 25, 1991*

Document No.: 5.01 146 05/29/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Douglas Little / Bunker Limited Partnership
To / Orgnztn: John Meyer / USEPA
Title: *EPA information request of March 25, 1991 to Duane Hagadone*

Document No.: 5.01 147 06/07/91 **Pages:** 14 **Confidential?** N
From/Orgnztn: C. Dean Little / Bunker Limited Partnership
To / Orgnztn: Charles Findley / USEPA
Title: *CERCLA information request to Harry Magnuson*

Document No.: 5.01 148 12/02/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Sam Russo / Stauffer Chemical Company
Title: *Request for information*

Document No.: 5.01 149 12/30/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Michael The. Bourque / Stauffer Chemical Company
To / Orgnztn: John Meyer / USEPA
Title: *Response to request for information*

Document No.: 5.01 150 01/10/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Michael The. Bourque / Stauffer Chemical Co.
To / Orgnztn: Allen Bakalian / USEPA
Title: *Confirmation on meeting to review documents*

Document No.: 5.01 151 01/11/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Michael The. Bourque / Stauffer Chemical Co.
Title: *CERCLA information request*

Document No.: 5.01 152 01/30/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Michael The. Bourque / Stauffer Chemical Co.
To / Orgnztn: John Meyer / USEPA
Title: *Response to information request*

Document No.: 5.01 153 01/30/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Michael The. Bourque / Stauffer Chemical Co.
To / Orgnztn: John Meyer / USEPA
Title: *Response to Dec. 13, 1988 letter requesting information*

Document No.: 5.01 154 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Sam Russo / Stauffer Chemical Co.
Title: *CERCLA general notice letter*

Document No.: 5.01 155 12/05/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Arthur Brown / Hecla Mining Co.
Title: *Request for information*

Document No.: 5.01 156 12/30/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Nathaniel K. Adams / Hecla Mining Co.
To / Orgnztn: John Meyer / USEPA
Title: *Response to request for information dated Dec. 8, 1988*

Document No.: 5.01 157 07/31/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Michael B. White / Hecla Mining Co.
To / Orgnztn: Robie Russell / USEPA
Title: *Request for meeting discussing responsibility*

Document No.: 5.01 158 10/04/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Arthur Brown / Hecla Mining Co.
Title: *CERCLA general notice*

Document No.: 5.01 159 11/08/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Michael B. White / Hecla Mining Co.
To / Orgnztn: Charles Findley / USEPA
Title: *CERCLA general notice letter*

Document No.: 5.01 160 11/14/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles E. Findley / USEPA
To / Orgnztn: Arthur Brown / Hecla Mining Co.
Title: *CERCLA information request*

Document No.: 5.01 161 11/20/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Arthur Brown / Hecla Mining Co.
Title: *CERCLA information request*

Document No.: 5.01 162 12/21/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Nathaniel K. Adams / Hecla Mining Co.
To / Orgnztn: Sally Martyn / USEPA
Title: *CERCLA 104(e) information request*

Document No.: 5.01 163 02/07/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Arthur Brown / Hecla Mining Co.
Title: *CERCLA general notice letter*

Document No.: 5.01 164 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / All PRP's
Title: *CERCLA information requests*

Document No.: 5.01 165 12/22/89 **Pages:** 8 **Confidential?** N
From/Orgnztn: Robert H. Peterson / Sunshine Precious Metals
To / Orgnztn: Sally Martyn / USEPA
Title: *Response to request of information dated November 14, 1989*

Document No.: 5.01 166 02/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Robert H. Peterson / Sunshine Precious Metals
Title: *CERCLA general notice letter*

Document No.: 5.01 167 06/07/91 **Pages:** 4 **Confidential?** N
From/Orgnztn: Philip Millam / USEPA
To / Orgnztn: John Simko / Sunshine Mining Co.
Title: *Notification that Sunshine Mining Co. is officially a PRP*

Document No.: 5.01 168 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / Upstream Mining Companies
Title: *CERCLA information request*

Document No.: 5.01 169 12/08/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: William A. Nicely / Callahan Mining Corp.
To / Orgnztn: Charles Findley / USEPA
Title: *Reply to request for information dated Nov. 14, 1989*

Document No.: 5.01 170 02/07/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: William A. Nicely / Callahan Mining Corp.
Title: *CERCLA general notice letter*

Document No.: 5.01 171 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / All upstream mining companies
Title: *CERCLA information request*

Document No.: 5.01 172 04/09/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: R. M. Macphee / Highland Surprise Consolidated Co
To / Orgnztn: Sally Martyn / USEPA
Title: *Response to request for information*

Document No.: 5.01 173 02/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: H. F. Magnuson / Highland Surprise Consolidated Co
Title: *CERCLA general notice letter*

Document No.: 5.01 174 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / All upstream mining companies
Title: *CERCLA information request*

Document No.: 5.01 175 11/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: J. C. Phahl / ASARCO
To / Orgnztn: Sally Martyn / USEPA
Title: *Notification of forward of information request*

Document No.: 5.01 176 12/14/89 **Pages:** 10 **Confidential?** N
From/Orgnztn: J. C. Pfahl / ASARCO
To / Orgnztn: Sally Martyn / USEPA
Title: *ASARCO's responses to seven questions included in the Nov. 14, 1989 CERCLA request for information*

Document No.: 5.01 177 02/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: F. D. Owsley / ASARCO
Title: *CERCLA general notice letter*

Document No.: 5.01 178 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / All upstream companies
Title: *CERCLA information request*

Document No.: 5.01 179 12/22/89 **Pages:** 8 **Confidential?** N
From/Orgnztn: Robert T. Richins / Coeur d'Alene Mines
To / Orgnztn: Sally Martyn / USEPA
Title: *Response to CERCLA information request*

Document No.: 5.01 180 02/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Robert T. Richins / Coeur d'Alene Mines
Title: *CERCLA general notice letter*

Document No.: 5.01 181 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / All Upstream Mining Companies
Title: *CERCLA information request*

Document No.: 5.01 182 11/26/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Paula Harrison / Silver Bowl Inc.
To / Orgnztn: Philip G. Millam / USEPA
Title: *Silver Bowl Inc. requests to be removed from the PRP list*

Document No.: 5.01 183 02/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Paula Harrison / Silver Bowl, Inc.
Title: *CERCLA general notice letter*

Document No.: 5.01 184 11/14/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: C. T. Corporation System / Union Pacific Railroad
Title: *CERCLA information request*

Document No.: 5.01 185 12/01/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jeanne M. Larson / Union Pacific Railroad Co.
To / Orgnztn: Sally Martyn / USEPA
Title: *CERCLA information request*

Document No.: 5.01 186 12/22/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Nancy A. Roberts / Union Pacific Railroad Co.
To / Orgnztn: Sally Martyn / USEPA
Title: *CERCLA information request*

Document No.: 5.01 187 07/16/90 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack W. Kendrick / Minerals Corp. of Idaho
Title: *Request for information*

Document No.: 5.01 188 06/04/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Robert L. Magnuson / Bunker Limited Partnership
Title: *Letter telling R. Magnuson that his response to the request for information was not adequate.*

Document No.: 5.02 014 03/18/86 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter responding to comments on Fast Track projects of 3/6/86*

Document No.: 5.02 018 05/05/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: William F. Boyd / Evans, Keane, Koontz, Boyd&Ripley
To / Orgnztn: Task Force Members / NA
Title: *Letter transmitting Pintlar's and Gulf's comments on the proposed Fast Track*

Document No.: 5.02 021 08/14/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Tom Harmon / IDHW
To / Orgnztn: Frank Breidt / Bunker Limited Partnership
Title: *Letter regarding fugitive dust from the CIA*

Document No.: 5.02 023 09/19/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jack Kendrick / Syringa Minerals Corporation
To / Orgnztn: James Everts / EPA
Title: *Letter responding to consent for access to property and requesting information specific to that access*

Document No.: 5.02 024 10/01/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jack Kendrick / Bunker Limited Partnership
To / Orgnztn: Robie Russell / EPA
Title: *Letter regarding property access for sampling and requesting details of water sampling program*

Document No.: 5.02 025 10/01/86 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jack Kendrick / Syringa Minerals Corporation
To / Orgnztn: Robie Russel / EPA
Title: *Letter protesting wrongdoing regarding wind blown dust, TerraGraphics acting as sampler and consultant, and IDHW's request to sample BLP property*

Document No.: 5.02 026 10/21/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Henry Habicht II / U.S. Dept. of Justice
To / Orgnztn: Honorable Harold L. Ryan / U.S. District Court
Title: *Letter requesting the materials sealed in Yoss et al v. The Bunker Hill Company be preserved by the Court Clerk pending resolution of an information request*

Document No.: 5.02 027 10/22/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Ledger / IDHW
To / Orgnztn: Frank Breidt / Bunker Limited Partnership
Title: *Letter requesting Bunker Hill Limited Partnership to inform IDHW of ownership of the CIA and relationship with Syringa*

Document No.: 5.02 029 10/23/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter requesting information*

Document No.: 5.02 030 10/24/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter requesting Bunker Limited Partnership to meet with EPA and IDHW to discuss issues arising due to negotiations with Gulf Resources and Chemical Co.*

Document No.: 5.02 031 11/07/86 **Pages:** 15 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter and attachments regarding Table 3-1 and 3-4 representing preliminary screening of possible technologies*

Document No.: 5.02 032 12/02/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter requesting meeting in early Dec. 1986 to discuss potential for fire at the complex site*

Document No.: 5.02 033 12/18/86 **Pages:** 3 **Confidential?** N
From/Orgnztn: Wayne Grotheer, Deborah Gates / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter detailing the reasons for splitting the Bunker Hill site in the populated areas and the un-populated areas as requested*

Document No.: 5.02 034 01/06/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter describing IDHW's role in oversight of Gulf's RI/FS on the unpopulated areas*

Document No.: 5.02 035 01/28/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: James Everts / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter confirming record of commitments made at the December 11, 1986 meeting between EPA, IDHW, and BLP/Syringa*

Document No.: 5.02 036 03/09/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Frank Breidt / Syringa Minerals Corporation
To / Orgnztn: James Everts / EPA
Title: *Letter regarding Syringa fire protection at the smelter and zinc plant*

Document No.: 5.02 038 03/27/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: James Everts / EPA
To / Orgnztn: Jack Kendrick, Frank Breidt / Bunker Limited Partnership
Title: *Letter responding to Mr. Breidt of BLP's letter regarding fire suppression, stating that their plan is insufficient and fails to confirm verbal commitments*

Document No.: 5.02 039 04/03/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: James Everts / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter stating some dust monitoring efforts and inviting Jack Kendrick to meeting with EPA and IDHW at the next Task Force meeting*

Document No.: 5.02 041 04/27/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jack Kendrick / Bunker Limited Partnership
To / Orgnztn: Sally Martyn / EPA
Title: *Letter summarizing discussion between Sally Martyn, Bryan Johnson, Tom Harmon, and Jack Kendrick about dust control from CIA and Gypsum Pond*

Document No.: 5.02 042 05/04/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter thanking BLP for letter on fire suppression*

Document No.: 5.02 043 05/20/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter requesting copies of all plans, task memos, recommendations for further action, QA memos and audits, reports, raw data, field notes, and lab reports*

Document No.: 5.02 044 05/21/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter advising that T. Barry Tierney is Project Coordinator*

Document No.: 5.02 045 05/29/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Cheryl Koshuta / IDHW
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter advising that Bryan Johnson is project coordinator and John Moeller will act as a substitute*

Document No.: 5.02 046 06/10/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter advising that Peter Jasberg will be substitute project coordinator during absence*

Document No.: 5.02 047 06/17/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to sample soils and vegetative materials about 175 residences scheduled to commence 6/26/87*

Document No.: 5.02 048 06/22/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Workplan Approach and Residential Soils Task Orders*

Document No.: 5.02 049 07/07/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Fugitive Dust Task Order as requested and notifying intent to sample at about 225 residences scheduled to commence 7/13/87*

Document No.: 5.02 050 07/08/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter providing list of personnel to be included in access agreement as requested*

Document No.: 5.02 051 07/21/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the Land Use Characterization and Additional Activities Task Orders as requested*

Document No.: 5.02 052 08/11/87 **Pages:** 9 **Confidential?** N
From/Orgnztn: NA / Gulf Resources and Chemical Co.
To / Orgnztn: NA / IDHW
Title: *Comments concerning the Bunker Hill Annotated Outline and Work Plan*

Document No.: 5.02 053 08/13/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter providing list of possible oversight personnel as requested*

Document No.: 5.02 054 08/25/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter responding to document request pursuant to paragraphs 19 and 24 of the Consent Order*

Document No.: 5.02 055 09/03/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter requesting Preliminary Modeling Analysis Report by Don Caniparoli*

Document No.: 5.02 058 11/09/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to sample soils in populated areas scheduled to commence 11/16/87*

Document No.: 5.02 059 11/10/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter requesting documents from IDHW: RI Work Plan, Sampling Plan, FOP, QAPP, Laboratory Analytical Procedures and Protocols*

Document No.: 5.02 060 11/23/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter responding to document requests from Pintlar for Public Health info, Populated Areas RI/FS Workplan, Sampling Plan, FOP, QAPP, and Lap*

Document No.: 5.02 062 12/08/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting FOP and draft QAPP for the 1987 subsurface soil sampling and notifying intent to sample starting 12/14/87*

Document No.: 5.02 065 03/02/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter requesting settlement proposal for Removal Action 1986*

Document No.: 5.02 066 04/26/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter responding to inadequate settlement for Removal Action 1986*

Document No.: 5.02 067 04/26/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter responding to request for information on Air Monitoring*

Document No.: 5.02 068 05/10/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft RI/FS Workplan and draft EE/CA*

Document No.: 5.02 069 05/11/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter responding to Gulf's alternate removal action*

Document No.: 5.02 072 07/20/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Susan Martin / IDHW
Title: *Letter requesting fugitive dust data*

Document No.: 5.02 074 07/25/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Spectral Reflectance Imagery Technical Memorandum*

Document No.: 5.02 075 07/25/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting June 1988 Progress Report*

Document No.: 5.02 076 07/29/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Laboratory Analytical Protocol*

Document No.: 5.02 077 08/03/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Joseph Rodricks / ENVIRON
Title: *Letter transmitting requested data*

Document No.: 5.02 078 08/04/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to split soil cores collected in December of 1987 and sample house dust*

Document No.: 5.02 079 08/05/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter confirming meeting date to discuss negotiations for payment of removal Action 1986*

Document No.: 5.02 082 08/29/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Fugitive Dust Monitoring QA/QC Plan*

Document No.: 5.02 083 08/30/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting LAP for populated ares, amendment to Dust Source Sampling Protocols*

Document No.: 5.02 084 09/09/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting July 1988 Progress Report*

Document No.: 5.02 085 09/09/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Data Quality Assurance Reports for Group 1*

Document No.: 5.02 086 09/15/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting August 1988 Progress Report*

Document No.: 5.02 087 10/05/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting subsurface soils sampling field documents, amendments to residential soils protocols, EECA Workplan, amendment to DQAR for Group 1,2, and 3*

Document No.: 5.02 088 10/06/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting pre-1983 data used in Health Risk Assessment and 1986-1987 residential soils results*

Document No.: 5.02 089 10/17/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft FSP and draft QAPP for Phase II RI Sampling*

Document No.: 5.02 090 10/27/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting September 1988 Progress Report*

Document No.: 5.02 091 10/31/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Susan Youngren / ENVIRON
Title: *Letter transmitting residential soils data as requested*

Document No.: 5.02 092 11/03/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting amendment to the QAPP for the 1987 Sampling and Analysis Plan*

Document No.: 5.02 093 11/15/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1986-1987 residential soils data base*

Document No.: 5.02 094 11/16/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting October 1988 Progress Report*

Document No.: 5.02 095 11/28/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1986-1987 residential soils and litter data and TSP data from air monitoring*

Document No.: 5.02 096 12/02/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Quality Assurance Reports for Fugitive Dust and Water Quality*

Document No.: 5.02 097 12/15/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Engineering Evaluation for Phased Cleanup -- 1989*

Document No.: 5.02 098 12/20/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1986-1987 residential soils and litter data*

Document No.: 5.02 099 12/21/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter summarizing the Health Intervention Project*

Document No.: 5.02 100 12/28/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Technical Specification for Phase Cleanup -- 1989*

Document No.: 5.02 101 12/29/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting November 1988 Progress Report*

Document No.: 5.02 106 01/16/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting diskette with fugitive dust source data*

Document No.: 5.02 107 01/16/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting amendment to air monitoring protocols*

Document No.: 5.02 108 01/16/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting requested detailed cost estimates for two scenarios of the 1989 cleanup*

Document No.: 5.02 109 01/27/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting December 1988 Progress Report*

Document No.: 5.02 110 02/03/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting preliminary data from soil cores collected in 1987*

Document No.: 5.02 112 02/14/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting QAPP for Phase II*

Document No.: 5.02 114 03/02/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting summary of proposed action and public review draft of the EEPC*

Document No.: 5.02 115 03/07/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Field Sampling Plan for Phase II*

Document No.: 5.02 117 03/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting QAPP for air monitoring*

Document No.: 5.02 118 03/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting February 1989 Progress Report*

Document No.: 5.02 124 04/10/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Disposal Assessment*

Document No.: 5.02 128 05/08/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting amendment to the Laboratory Analytical Protocols*

Document No.: 5.02 130 05/09/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting QAPP for Phase II RI Sampling and Analysis Plan*

Document No.: 5.02 131 05/12/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Fugitive Dust Data Summary Report*

Document No.: 5.02 132 05/12/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Field Sampling Plan for Phase II RI Sampling and Analysis Plan*

Document No.: 5.02 135 05/30/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting April 1989 Progress Report*

Document No.: 5.02 136 06/06/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: William Longston / EPA
Title: *Letter notifying of intent to have Dames & Moore oversee the work scheduled on the populated areas as set forth in the EEPC, TSPC, and FSP for Phase II*

Document No.: 5.02 138 06/15/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting zoning map for Shoshone County and the cities of Pinehurst, Smelterville, Wardner, and Kellogg*

Document No.: 5.02 139 06/19/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to sample soils of populated areas for mercury and organics scheduled to commence 6/26/89*

Document No.: 5.02 140 06/19/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting May 1989 Progress Report*

Document No.: 5.02 141 06/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Fugitive Dust Data Summary Report*

Document No.: 5.02 142 07/07/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Data Quality Assurance Reports*

Document No.: 5.02 144 07/13/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on the Fugitive Dust Source Data Summary Report*

Document No.: 5.02 145 07/18/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting June 1989 Progress Report*

Document No.: 5.02 148 07/25/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting recommendation for network configuration and operations for 1989 particulate monitoring*

Document No.: 5.02 149 07/26/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to sample residential yards for mercury and organics, restarting on 8/7/89*

Document No.: 5.02 150 07/26/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter acknowledging receipt of comments on the Fugitive Dust Data Summary Report*

Document No.: 5.02 151 07/28/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Duane Little / Task Force Chairman
Title: *Letter responding to a request to negotiate a master plan for the Bunker Hill Superfund Site*

Document No.: 5.02 152 07/31/89 **Pages:** 8 **Confidential?** N
From/Orgnztn: Frank Breidt / Minerals Corporation of Idaho,Inc
To / Orgnztn: Addressees / NA
Title: *8 letters regarding the use of slag as a traction material to various local officials*

Document No.: 5.02 153 08/08/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Susan Hunter Youngren / ENVIRON
Title: *Letter transmitting diskette with a data file containing child blood lead data and corresponding house dust and soil lead data*

Document No.: 5.02 154 08/10/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Dave Jackson / Dames & Moore
Title: *Letter transmitting Bunker Hill site map*

Document No.: 5.02 155 08/14/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to do remainder of Phase II field sampling beginning 8/21/89*

Document No.: 5.02 156 08/18/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Dave Chesmore / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting changes/Total Suspended Particulates/metals tables*

Document No.: 5.02 157 08/23/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Lance Nielsen / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting July 1989 Progress Report*

Document No.: 5.02 158 09/18/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Lance Nielsen / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft QAPP for air monitoring*

Document No.: 5.02 161 10/06/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting information regarding fugitive dust pursuant to telephone conversation of 10/5/89*

Document No.: 5.02 164 10/12/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hansonacek / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Standard Operating Procedures for House Dust Field Sampling Plan*

Document No.: 5.02 165 10/24/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting revised Workplan*

Document No.: 5.02 166 10/25/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter acknowledging receipt of Residential Soil Composite Samples*

Document No.: 5.02 167 11/06/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Draft Air Filter Data Summary Report*

Document No.: 5.02 169 11/30/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting October 1989 Progress Report*

Document No.: 5.02 170 12/05/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Fritz Dixon / IDHW
To / Orgnztn: Richard Schultz / IDHW
Title: *Memo documenting request from Pintlar for blood lead data from August 1989 blood lead drawings*

Document No.: 5.02 172 12/13/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Page Ponds Disposal Design Criteria -- Site Visit Report*

Document No.: 5.02 173 12/16/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting comparison of Fluoroboric Acid to EPA CLP SOW 785 digestion*

Document No.: 5.02 175 01/03/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting meteorological data; July 19 October 20, 1989*

Document No.: 5.02 176 01/03/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft 1986 - 1987 Residential Soils and Litter Data Summary Report*

Document No.: 5.02 177 01/10/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Page Ponds Disposal Design*

Document No.: 5.02 178 01/11/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting removal residential soil total metals and EPTOX data and data from Phase II sampling*

Document No.: 5.02 179 01/16/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting December 1989 Progress Report*

Document No.: 5.02 180 01/18/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting memo on recontamination of remediated areas with Fast Track and Phase II data*

Document No.: 5.02 181 01/31/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting amendment to the Laboratory Analytical Protocol*

Document No.: 5.02 182 01/31/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting diskette with data file on child blood leads and corresponding house dust and residential soils lead data*

Document No.: 5.02 184 02/05/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting document titled CNUM.PRN in ASCII format*

Document No.: 5.02 185 02/05/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting QAPP for air monitoring program*

Document No.: 5.02 186 02/07/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1980 blood sampling data*

Document No.: 5.02 187 02/13/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Meyer / EPA
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying that Kevin Oates will replace John Meyer as Project Coordinator*

Document No.: 5.02 188 02/23/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1989 air filter data*

Document No.: 5.02 189 02/27/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Comparison of Fluoroboric Acid to EPA CLP SOW 785 Digestion*

Document No.: 5.02 190 03/02/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Comparison of Fluoroboric Acid to EPA CLP SOW 785 Digestion*

Document No.: 5.02 191 03/02/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1989 air filter TSP results*

Document No.: 5.02 192 03/06/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting January 1990 Progress Report*

Document No.: 5.02 194 03/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Residential Soils and Litter Data Summary Report*

Document No.: 5.02 195 03/16/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting House Dust FSP and QAPP*

Document No.: 5.02 196 03/21/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting maps of Phase II sampling locations for streets and railroad right-of-ways*

Document No.: 5.02 197 03/23/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting 1989 air filter metal analytical results*

Document No.: 5.02 199 04/06/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting March 1990 Progress Report*

Document No.: 5.02 201 06/04/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting data validation report for Phase II Sampling*

Document No.: 5.02 205 06/11/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting May 1990 Progress Report*

Document No.: 5.02 206 06/11/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Phase II sampling data files*

Document No.: 5.02 207 06/13/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Phase II laboratory results for Pinehurst and Elizabeth Park*

Document No.: 5.02 209 06/20/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting memo on EPTOX Characterization of Residential Soils at the Bunker Hill Superfund Site*

Document No.: 5.02 210 07/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the June 1990 Progress Report*

Document No.: 5.02 211 07/17/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting draft Data Summary Report: 1987 Air Filters*

Document No.: 5.02 212 08/14/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting July 1990 monthly report*

Document No.: 5.02 213 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting Phase II RI Field Activity Report*

Document No.: 5.02 214 06/07/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting memo on Past Practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Sampling Efforts*

Document No.: 5.02 215 05/16/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting April 1990 Progress Report*

Document No.: 5.02 216 11/06/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the memo on Particulate Emission Rates for Roads*

Document No.: 5.02 217 05/22/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting house dust investigation field activity report*

Document No.: 5.02 218 09/26/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the draft Technical Memorandum: Lead Accumulation in Unsaturated Soils*

Document No.: 5.02 219 09/11/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Nick Ceto / EPA
Title: *Letter notifying intention to spray the Copper Dross Flue Pile with "Marlock"*

Document No.: 5.02 221 07/26/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the draft Phase II Data Summary Report*

Document No.: 5.02 222 10/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the memo on past Practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Sampling Effort*

Document No.: 5.02 223 08/31/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter notifying intent to sample 16 yards to verify the pesticide results for the yards that had elevated pesticides levels*

Document No.: 5.02 224 02/09/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Rob Hanson / IDHW
Title: *Letter requesting additional information when diskettes are sent to Pintlar*

Document No.: 5.02 225 10/02/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jim Peterson / Maverick Salvage Company
Title: *Letter regarding a CERCLA information request*

Document No.: 5.02 226 10/02/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Robert Russell / Idaho General Mines, Inc.
Title: *Letter regarding a CERCLA information request*

Document No.: 5.02 227 10/02/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Mike Brandstetter / Golconda Mining Company
Title: *Letter regarding a CERCLA information request*

Document No.: 5.02 228 09/18/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the Phase II Data Summary Report*

Document No.: 5.02 229 09/18/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Addressees / NA
Title: *Letter transmitting the Phase II Data Summary Report*

Document No.: 5.02 230 09/18/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the monthly progress report for August, 1990*

Document No.: 5.02 231 09/13/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Addressees / NA
Title: *Letter transmitting the Fugitive Dust Data Summary Report*

Document No.: 5.02 232 06/26/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the draft Fugitive Dust Data Summary Report*

Document No.: 5.02 233 10/18/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Deliverable RI/FS Documents per Pintlar v. Donovan*

Document No.: 5.02 234 09/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the Fugitive Dust Data Summary Report*

Document No.: 5.02 235 11/02/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn, Nick Ceto / EPA
To / Orgnztn: Rob Hanson, Mike Thomas / IDHW
Title: *Letter announcing Bunker Hill quarterly meeting on November 14*

Document No.: 5.02 236 11/23/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the Residential Soil Focused Feasibility Study*

Document No.: 5.02 237 11/19/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the memo on Past Practices: Comparison of Quality Assurance Project Plan for Air Monitoring to 1987 and 1989 Field Effort*

Document No.: 5.02 238 09/18/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Jack Kendrick / Syringa Minerals Corp.
Title: *Letter transmitting the final draft of the Bunker Hill Superfund Site Phase II Data Summary Report*

Document No.: 5.02 239 11/21/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the October 1990 monthly Progress Report*

Document No.: 5.02 240 12/21/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting the draft Soil Core Data Summary Report*

Document No.: 5.02 241 12/13/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Phillip Millam / EPA
To / Orgnztn: John Condon / Condon Brothers, Inc.
Title: *Letter regarding a CERCLA information request; Bunker Hill Superfund Site*

Document No.: 5.02 242 12/18/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Edwin Ullmer / Environmental Assessments, USPCI
Title: *Letter transmitting the key for the soil samples collected along the railroad right-of-way*

Document No.: 5.02 245 11/12/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: Bryan Johnson / IDHW
Title: *November 1986 Fugitive Dust Study Sampling Locations*

Document No.: 5.02 248 12/11/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar Corporation
Title: *Letter enclosing Meteorological Wind Rose Summary for October 1987*

Document No.: 5.02 249 12/08/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Upcoming Soil Profile Sampling Activities*

Document No.: 5.02 253 04/27/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter enclosing the Quality Assurance Plan and Analytical Protocols that Silver Valley will follow*

Document No.: 5.02 256 04/11/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Terry Hoornbeek / McCuthen, Doyle, Brown & Emersen
Title: *Letter enclosing Data Summary Reports for RI/FS*

Document No.: 5.02 257 07/14/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter enclosing Interim Survey of Silver Valley Area*

Document No.: 5.02 258 09/02/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
To / Orgnztn: Wayne Grotheer / EPA
Title: *Regarding CERCLA NPL study of Bunker Hill Site*

Document No.: 5.02 259 09/30/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Regarding Proposal of Remediation Plan for Bunker Hill Site*

Document No.: 5.02 260 06/05/85 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Corp.
Title: *Response to letter concerning EPA's CERCLA request for information*

Document No.: 5.02 261 08/31/88 **Pages:** 14 **Confidential?** N
From/Orgnztn: Gary O'Neal / EPA
To / Orgnztn: B.H. Properties / NA
Title: *Section 113 Compliance Order and Section 114 Information Requirement Bunker Limited Partnership*

Document No.: 5.02 262 06/28/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robert Magnuson / Witherspoon, Kelley, Davenport &T
To / Orgnztn: James Merrill / EPA
Title: *Regarding letter from Charles Findley on June 4, 1985*

Document No.: 5.02 263 05/20/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Curt Fransen / State of Idaho
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Pintlar v. Donovan; Release of Data Pursuant to Stipulation and Order*

Document No.: 5.02 264 08/09/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter responding to information request on IDHW Dust Source Sampling and Air Filter Analysis*

Document No.: 5.02 265 11/14/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Addressees / NA
Title: *Letter requesting information from 8 PRP's*

Document No.: 5.02 266 04/01/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: Robert Launhardt / Sunshine Mining Company
To / Orgnztn: Nick Ceto / EPA
Title: *Letter discussing Idaho Air Quality Annual Report*

Document No.: 5.02 267 05/21/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robert Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar Corporation
Title: *Pintlar Letter, re: Data Summary Report 1987/1989 Air Filters*

Document No.: 5.02 268 05/21/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robert Hanson / IDHW
To / Orgnztn: Mr. F. D. Owsley / ASARCO, Inc.
Title: *Letter re: Data Summary Report 1987/1989 Air Filters*

Document No.: 5.02 269 04/26/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar Corporation
Title: *Pintlar Letter RE: Residential Soil Feasibility Study - Public Comment Draft and Proposed Plan*

Document No.: 5.02 270 04/26/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Jack Kendrick / Syringa Minerals Corporation
Title: *Letter RE: Residential Soils Feasibility Study - Public Comment Draft*

Document No.: 5.02 271 05/31/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Berry Tierney / Pintlar Corporation
Title: *Deliverable RI/FS Documents per Pintlar v. Donovan. RE: House Dust Remediation Report*

Document No.: 5.02 272 06/25/91 **Pages:** 7 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar Corp.
Title: *Hard copy and disk for the 1988 blood lead data*

Document No.: 5.02 273 06/19/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: J.W. Kendricx / Bunker Limited Partnership
To / Orgnztn: Trey Harbert / Pintlar Corporation
Title: *Statement denying responsibility for cleanup.*

Total Documents In Group: 378

DOCUMENT GROUP: 6.0

Document No.: 6.01 002 04/18/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: John Brueck / IDHW
To / Orgnztn: Beth Feeley / EPA
Title: *Letter transmitting comments to draft Dust Control Plan*

Document No.: 6.01 003 09/18/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Nick Ceto / EPA
To / Orgnztn: Wade McLean / Kootenai-Shoshone Soil Conservation
Title: *Letter regarding the Hillside Revegetation Consent Order*

Document No.: 6.01 004 09/18/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Nick Ceto / EPA
To / Orgnztn: Paul Calverley / U.S. Department of Agriculture
Title: *Letter regarding the Hillside Revegetation Consent Order*

Document No.: 6.01 007 05/15/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: T. Berry Tierney / Pintlar Corporation
Title: *Deliverable RI/FS Documents per Pintlar v. Donovan. RE: Notification of CH2M Hill going to be on site for soil sampling.*

Document No.: 6.01 008 05/29/91 **Pages:** 13 **Confidential?** N
From/Orgnztn: Charles Findley / U.S. EPA
To / Orgnztn: Dennis G. Wheeler / Coeur d'Alene Mine Corporation
Title: *1991 Residential Soils Removal Action*

Document No.: 6.01 009 04/27/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical
To / Orgnztn: Wayne Grotheer / USEPA
Title: *Letter responding to EPA's directions for change*

Document No.: 6.01 010 05/20/88 **Pages:** 5 **Confidential?** N
From/Orgnztn: Curt Fransen / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar Corporation
Title: *Letter RE: Pintlar v. Donovan; Release of data pursuant to Stipulation and Order*

Document No.: 6.02 001 04/29/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Cheryl Koshuta / IDHW
To / Orgnztn: James Merrill / EPA
Title: *Letter discussing participation in settlement discussion between Gulf Resources and Chemical Co. and EPA*

Document No.: 6.02 002 05/14/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Ernesta Barnes / EPA
To / Orgnztn: Jim Jones / IDHW
Title: *Letter responding to request for assistance for litigation to recover environmental damages*

Document No.: 6.02 003 10/01/86 **Pages:** 4 **Confidential?** N
From/Orgnztn: Deborah Gates / EPA
To / Orgnztn: Addressees / NA
Title: *Memo regarding EPA/IDHW/Gulf meeting on 9/15/86*

Document No.: 6.02 004 05/11/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter inviting Bunker Limited Partnership to be involved in Master Plan Negotiations*

Document No.: 6.02 005 08/22/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Notes for Discussion*

Document No.: 6.02 006 09/30/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russel / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter with comments on proposal for development of a remediation plan*

Document No.: 6.02 008 11/21/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Pintlar, Gulf, IDHW, EPA / NA
To / Orgnztn: NA / NA
Title: *Memorandum of Agreement*

Document No.: 6.02 012 01/10/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: John Meyer / EPA
Title: *Letter confirming meeting dates*

Document No.: 6.02 013 01/11/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter transmitting names of potential facilitators for master plan negotiations*

Document No.: 6.02 016 01/26/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: John Meyer / EPA
Title: *Letter transmitting agenda for 2/7/89 meeting*

Document No.: 6.02 017 01/27/89 **Pages:** 150 **Confidential?** N
From/Orgnztn: Alan Knaster / The Mediation Institute
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter transmitting services of the Mediation Institute*

Document No.: 6.02 018 02/02/89 **Pages:** 8 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *Letter transmitting information on mediation firms*

Document No.: 6.02 020 03/01/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: John Meyer / EPA
Title: *Letter confirming site visit of Jerry Cormick and Ty Tice*

Document No.: 6.02 021 04/05/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Ty Tice, Jerry Cormick / The Mediation Institute
Title: *Memo regarding Governor Andrus' instructions for oversight of the Bunker Hill Superfund Site*

Document No.: 6.02 023 05/22/89 **Pages:** 13 **Confidential?** N
From/Orgnztn: Ty Tice / The Mediation Institute
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter confirming meeting of 6/12/89 with attachments on ground rules*

Document No.: 6.02 029 08/18/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / The Mediation Institute
To / Orgnztn: NA / NA
Title: *Summary Statement: August 18, 1989, Status of Proposed Mediated Settlement Negotiations Bunker Hill Superfund Site*

Document No.: 6.02 031 11/17/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Lawrence Mehl / Gulf Resources and Chemical Co.
Title: *Letter requesting decision to continue mediation negotiations*

Document No.: 6.02 032 02/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Phillip Millam / EPA
To / Orgnztn: Richard Mullins / Coeur d'Alene Tribe
Title: *Letter following up meeting of 12/02/89 regarding settlement negotiations for Bunker Hill Superfund Site*

Document No.: 6.02 036 06/27/86 **Pages:** 8 **Confidential?** N
From/Orgnztn: State of Idaho v. Gulf, BHC, Chem. Corp. / NA
To / Orgnztn: NA / NA
Title: *Natural Resources Damages Settlement Agreement*

Document No.: 6.02 037 04/16/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Douglas S. Little / Perkins
To / Orgnztn: Allen Bakalian / EPA
Title: *Regarding negotiations in Bunker Hill*

Document No.: 6.03 002 06/05/90 **Pages:** 18 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Administrative Order and Settlement Agreement for 1990 Residential Removal Action at the Bunker Hill Superfund Site*

Document No.: 6.03 003 06/07/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Addressees / NA
Title: *Letter transmitting fully executed Administrative Order and Settlement Agreement and thanking PRPs for effort made to reach an agreement*

Document No.: 6.03 004 05/15/90 **Pages:** 42 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Administrative Unilateral Order: 1990 Residential Area Removal and Response Action at the Bunker Hill Superfund Site*

Document No.: 6.03 005 07/30/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Nick Ceto / EPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Letter following up the Administrative Unilateral Order stating that a site visit is necessary to evaluate and document current site conditions*

Document No.: 6.04 001 05/13/87 **Pages:** 41 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter and attachments regarding certified copy of signed Consent Order, Docket No. 1085-09-09-104*

Document No.: 6.04 006 05/15/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Addressees / NA
Title: *Notice letter regarding 1990 residential removal action and transmitting an Administrative Unilateral Order*

Document No.: 6.04 007 06/07/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / EPA
To / Orgnztn: Leslie Weatherhead / Witherspoon, Kelley, Davenport,TO
Title: *Letter denying settlement offer of 5,000 as insufficient*

Document No.: 6.04 008 07/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: William Boyd / Coeur d'Alene Mines
To / Orgnztn: Allen Bakalian / USEPA
Title: *Letter introducing a signature page signed by Dennis Wheeler of the 1991 Administrative Order on Consent*

Document No.: 6.04 009 07/15/91 **Pages:** 150 **Confidential?** N
From/Orgnztn: Philip G. Millam / USEPA
To / Orgnztn: Michael Thorp / Heller, Ehrman, White & McAuliffe
Title: *Letter introducing the 1991 Administrative Order on Consent.*

Document No.: 6.04 010 07/12/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Michael Thorp / Heller, Ehrman, White & McAuliffe
To / Orgnztn: Allen Bakalian / USEPA
Title: *Letter stating the enclosure of the PRP signature pages for the 1991 Administrative Order on Consent*

Document No.: 6.04 011 06/21/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: David Weinberg / Weinberg, Bergeson & Newman
Title: *Letter transmitting the EPA's final revised order on the Administrative Order on Consent*

Document No.: 6.04 012 06/05/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: William Kissinger / McCutchen, Doyle, Brown & Enersen
To / Orgnztn: Charles Findley / USEPA
Title: *Letter responding to a May 29, 1991 letter regarding Stauffer Chemical Company's 1991 Res Soils Removal Action*

Document No.: 6.04 013 06/03/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: John S. Simko / Sunshine Ming Company
To / Orgnztn: Charles Findley / USEPA
Title: *Letter stating that Sunshine Mining Co. has never stated that it was not in favor of the Res. Soil removal work*

Document No.: 6.04 014 06/03/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: William Nicely / Callahan Mining Corp.
To / Orgnztn: John Meyer / USEPA
Title: *Letter stating that Callahan Mining Co. hasn't withdrawn financial support for the Res. soil removal work*

Document No.: 6.04 015 05/29/91 **Pages:** 10 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / PRPs
Title: *Letter to PRPs who have not withdrawn financial support for the res. soils removal 1991*

Document No.: 6.04 016 04/17/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Dale Costa / Kellogg Fire Dept.
To / Orgnztn: Nick Ceto / USEPA
Title: *Letter referring to the Sept. 10, 1990 setter regarding fire suppression at the Mineral Corp.*

Document No.: 6.04 017 05/02/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Curt Fransen, Barry Stein, Ray Givens / Various
Title: *Letter to provide notice of a meeting scheduled with the BH PRPs*

Document No.: 6.04 018 05/06/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: N/A / Gulf Resources and Bunker Limited
Title: *Letter introducing the enclosure of Draft Administrative Order on Consent*

Document No.: 6.04 019 05/30/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Findley / USEPA
To / Orgnztn: Jack Kendrick / Bunker Limited Partnership
Title: *Follow-up letter of Feb. 6, 1991 letter Re: Remedial Action Plan*

Document No.: 6.04 020 06/07/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: David Weinberg / Weinberg, Bergenson & Newman
Title: *Letter regarding canceled conference call of June 7, 1991 regarding the 1991 Removal Action Order*

Document No.: 6.04 021 06/10/91 **Pages:** 5 **Confidential?** N
From/Orgnztn: John Meyer / USEPA
To / Orgnztn: H. P. Trey Harbert / Pintlar Corp.
Title: *Letter Re: Summer 91 Scope of work*

Document No.: 6.04 022 06/12/91 **Pages:** 12 **Confidential?** N
From/Orgnztn: John Meyer / USEPA
To / Orgnztn: Trey Harbert / Pintlar Corp.
Title: *Enclosure letter of EPA's latest redraft of the 1991 Scope of Work*

Document No.: 6.04 023 06/24/91 **Pages:** 10 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Final Draft: Bunker Hill 1991 Administrative Order on Consent*

Document No.: 6.04 024 06/28/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: David Weinberg / Wienberg, Bergeson & Newman
Title: *Enclosure letter for the now final Administrative Order on Consent*

Document No.: 6.04 025 07/02/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: John Meyer / USEPA
To / Orgnztn: Trey Harbert / Pintlar Corp.
Title: *Enclosure letter for the four pages from the 1991 Administrative Order incorporating the final changes*

Document No.: 6.04 026 05/02/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Allen Bakalian / USEPA
To / Orgnztn: Michael Thorp / Heller, Ehrman, White & McAuliffe
Title: *Letter Re: FAX of draft of the Administrative Order on Consent*

Total Documents In Group: 53

DOCUMENT GROUP: 7.0

Document No.: 7.01 002 10/16/89 **Pages:** 8 **Confidential?** N
From/Orgnztn: Barry Johnson / ATSDR
To / Orgnztn: Richard Donovan / IDHW
Title: *Letter and attachments regarding and transmitting ATSDR's Public Health Advisory*

Document No.: 7.01 003 10/25/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Walter Dowdle / ATSDR
Title: *Letter advising of EPA's response to the Public Health Advisory*

Document No.: 7.01 005 09/18/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Fritz Dixon / Epidemiologic Studies Program
Title: *Analysis of Blood lead Levels by School*

Document No.: 7.01 006 06/17/81 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Fritz Dixon / Epidemiologic Studies Program
Title: *Lead Study Data*

Document No.: 7.01 007 10/29/80 **Pages:** 4 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Fritz Dixon / Epidemiologic Studies Program
Title: *Analysis of Blood Lead Study Data*

Document No.: 7.01 008 01/23/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Fritz Dixon / IDHW
To / Orgnztn: Joel Mulder / USEPA
Title: *Letter asking for assistance in acquiring answers to questions of Kellogg residents and the staff of the Division of Health.*

Document No.: 7.01 009 01/22/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Ian Von Lindern / Terragraphics
To / Orgnztn: Sally Martyn / USEPA
Title: *Letter and Memo regarding outstanding health issues associated with past exposures*

Document No.: 7.01 010 01/22/90 **Pages:** 13 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: N/A / Members of the Lead Health Commit
Title: *ATSDR Health Advisory Panel - Health effects issues associated with past and continuing exposures to metals at the BH NPL Site*

Document No.: 7.02 001 10/05/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: NA / ATSDR
To / Orgnztn: NA / NA
Title: *Public Health Advisory: Bunker Hill Superfund Site, Industrial Complex Portion*

Document No.: 7.02 002 08/22/88 **Pages:** 6 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Preliminary health assessment for Bunker Hill.*

Document No.: 7.02 003 09/19/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Addendum to preliminary health assessment.*

Document No.: 7.02 004 01/06/89 **Pages:** 8 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Preliminary health assessment for Bunker Hill.*

Document No.: 7.02 005 11/02/89 **Pages:** 14 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Addendum to health assessment for Bunker Hill.*

Document No.: 7.02 006 08/14/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Gregory D. Thomas / Dept. of Health and Human Service
To / Orgnztn: Sally Martyn / UAEPA
Title: *Addendum to the Health Assessment*

Document No.: 7.03 001 01/01/85 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / Centers for Disease Control
To / Orgnztn: NA / NA
Title: *Preventing Lead Poisoning in Young Children*

Document No.: 7.03 002 03/26/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Silver Valley Health Intervention Program*

Document No.: 7.03 003 01/14/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Fritz Dixon, Charles Brokopp / IDHW
To / Orgnztn: Charles Findley / EPA
Title: *Letter summarizing the Health Intervention Program*

Document No.: 7.03 004 02/08/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Gary Stein / ATSDR
To / Orgnztn: Medical Epidemiologist / ATSDR
Title: *Memo regarding trip report to Boise, Idaho, February 1-3, 1989 for a meeting on Health Intervention*

Document No.: 7.03 005 02/20/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Fritz Dixon, Charles Brokopp / IDHW
To / Orgnztn: Addressees / NA
Title: *Memo following-up on February 2-3 meeting in Boise on Lead Project Health Intervention meeting*

Document No.: 7.03 006 11/11/11 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Short Term Community Lead Exposure Reduction in Kellogg, Idaho*

Document No.: 7.03 007 06/26/85 **Pages:** 14 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Task Force / NA
Title: *Historical Lead Health Exposure Presentation*

Document No.: 7.03 008 01/12/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Chuck Brokopp / IDHW
Title: *Presentation for Shoshone Medical Center - Medical Staff*

Document No.: 7.03 009 01/27/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Participants / N/A
Title: *Lead Project - Health Intervention Meeting*

Document No.: 7.03 010 11/11/11 **Pages:** 5 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Tentative Agenda for the Lead Project Health Intervention Meeting*

Document No.: 7.03 011 02/20/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Charles Brokopp / IDHW
To / Orgnztn: Participants / Lead Health Intervention program
Title: *Follow-up of February 2-3 Meeting in Boise*

Document No.: 7.03 012 02/08/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Gary F. Stein / Centers for Disease Control
To / Orgnztn: N/A / N/A
Title: *Trip report*

Document No.: 7.04 002 09/01/89 **Pages:** 800 **Confidential?** N
From/Orgnztn: NA / Jacobs Engineering
To / Orgnztn: NA / EPA
Title: *Human Health Risk Assessment Protocol for the Populated Ares of the Bunker Hill Superfund Site*

Document No.: 7.04 004 02/01/90 **Pages:** 27 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: John Meyer / EPA
Title: *Letter and attachments commenting on the Human Health Risk Assessment Protocol for the populated Areas of the Bunker Hill Superfund Site -- September 1989*

Document No.: 7.04 005 12/24/87 **Pages:** 8 **Confidential?** N
From/Orgnztn: T. Barry Tierney / Pintlar
To / Orgnztn: John Meyer / EPA
Title: *Letter and attachments commenting on the Endangerment Assessment Protocol*

Document No.: 7.04 006 12/30/88 **Pages:** 100 **Confidential?** N
From/Orgnztn: NA / ENVIRON Corporation
To / Orgnztn: NA / Gulf Resources and Chemical Co.
Title: *Comments on the draft Human Risk Assessment Protocol for the Bunker Hill Site*

Document No.: 7.04 007 01/09/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter regarding the Human Health Risk Assessment Protocol*

Document No.: 7.04 008 11/25/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Meyer / EPA
To / Orgnztn: Gene Baker / Gulf Resources and Chemical Co.
Title: *Letter requesting comments on Human Health Risk Assessment Protocol for the Populated Areas of the Bunker Hill Superfund Site*

Document No.: 7.04 009 06/23/89 **Pages:** 200 **Confidential?** N
From/Orgnztn: N/A / Jacobs Engineering
To / Orgnztn: N/A / N/A
Title: *Response to comments Draft Human Health Risk Assessment Protocol for the Populated Areas of the Bunker Hill Superfund Site.*

Document No.: 7.05 001 10/01/80 **Pages:** 16 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *Status of Blood Lead Determinations in Shoshone County*

Document No.: 7.05 007 01/01/87 **Pages:** 21 **Confidential?** N
From/Orgnztn: Health Assessment Reviewer / HHS
To / Orgnztn: The Record / NA
Title: *Memo regarding the Evaluation of the Relationship of Human Lead and Cadmium Levels with Consumption of fish caught in and around Lake Coeur d'Alene*

Document No.: 7.05 013 11/11/11 **Pages:** 12 **Confidential?** N
From/Orgnztn: Office of Health Assessment / HHS
To / Orgnztn: Joel Mulder / EPA
Title: *Memo regarding the review of fish sampling results, Lake Coeur d'Alene*

Document No.: 7.05 014 11/11/11 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robert Krieger, et al. / NA
To / Orgnztn: NA / NA
Title: *Health Effects of Lead in the South Coeur d'Alene River Basin*

Document No.: 7.05 015 11/11/11 **Pages:** 14 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Mortality in Idaho: 1973-1977*

Total Documents In Group: 38

DOCUMENT GROUP: 8.0

Document No.: 8.01 001 10/29/84 **Pages:** 2 **Confidential?** N
From/Orgnztn: County Commissioners / Shoshone County
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter concerning the proposed Superfund activities in the Silver Valley*

Document No.: 8.01 002 12/26/84 **Pages:** 3 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: County Commissioners / County of Shoshone
Title: *Letter responding to 10/29/84 letter regarding potential Superfund activities in the Silver Valley*

Document No.: 8.01 003 02/11/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wes Whiteman / Local citizen
To / Orgnztn: Sens. McClure, Symms, Rep. Craig / NA
Title: *Letter commenting on the Bunker Hill Superfund Site*

Document No.: 8.01 004 02/11/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Frances Chapman / EPA
Title: *Letter regarding the lead FIP for the Bunker Hill Complex*

Document No.: 8.01 005 04/03/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Fred Cantamessa, et al. / Board of Shoshone County Comm.
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter naming who has been appointed to the Task Force*

Document No.: 8.01 006 04/15/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Frances Chapman / EPA
Title: *Letter regarding some comments of Ms. Shirley Torkelson*

Document No.: 8.01 007 06/27/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: Task Force Members / NA
Title: *Memo reporting the status of the Site Characterization Report*

Document No.: 8.01 008 07/12/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Task Force members / NA
Title: *Letter updating the cleanup situation at the Bunker Hill site, specifically, efforts to obtain environmental data from Bunker Limited Partnership*

Document No.: 8.01 009 07/15/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *Letter regarding some public views on the Superfund Project*

Document No.: 8.01 010 08/29/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *Memo regarding the Site Characterization Report*

Document No.: 8.01 011 10/04/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: James McClure / United States Senator for Idaho
To / Orgnztn: Brad harr / IDHW
Title: *Letter regarding IDHW's involvement in the Bunker Hill Project*

Document No.: 8.01 012 10/09/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Norman Sather / local citizen
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter from a man who lived in the Silver Valley from 1912 to 1974 and still has family in the Silver Valley*

Document No.: 8.01 013 12/03/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Brad Harr / IDHW
Title: *Letter regarding a 10/29/85 meeting with John Stocks, Ms. T. Wyatt and Charlene Matheson of the Idaho Fair Share*

Document No.: 8.01 014 01/02/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: John Stocks / Idaho Fair Share
To / Orgnztn: Brad Harr / IDHW
Title: *Letter commenting on the Site Characterization Report and Community Relations Plan*

Document No.: 8.01 015 02/22/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: JoAnn Groves, Mayor / City of Wardner
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Letter regarding some cleanup activities in Wardner*

Document No.: 8.01 016 04/29/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Stan Edwards / local contractor
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter requesting information on slag*

Document No.: 8.01 017 05/21/86 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Addressees / NA
Title: *4 letters regarding press contact for Fast Track activities to various local officials*

Document No.: 8.01 018 06/06/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Brad Harr / IDHW
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Letter notifying that Barbara Myers has been hired by Fair Share as an additional staff person to monitor the Bunker Hill Superfund Project*

Document No.: 8.01 019 06/28/86 **Pages:** 30 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Stan Edwards / local contractor
Title: *Letter and attachments responding to concerns about the use of slag*

Document No.: 8.01 020 07/14/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Jim Willman / EPA
Title: *Letter regarding efforts on Fast Track*

Document No.: 8.01 021 07/28/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Brad Harr, Wayne Grotheer, Jerry C. / IDHW, EPA, PHD
To / Orgnztn: Task Force members and residents / NA
Title: *Memo thanking the Task Force and local citizens for their help in Fast Track*

Document No.: 8.01 022 05/15/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rose Bowman / IDHW
To / Orgnztn: D. Sheppard / local citizen
Title: *Letter responding to fugitive dust complaint*

Document No.: 8.01 023 08/20/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter regarding the fugitive dust problem*

Document No.: 8.01 024 08/20/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter regarding the dust problem from the tailing pond on the west side of Kellogg*

Document No.: 8.01 025 08/21/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Lee Stokes / IDHW
Title: *Letter regarding fugitive dust problem*

Document No.: 8.01 026 08/28/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Lee Stokes / EPA
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter responding to fugitive dust concerns*

Document No.: 8.01 027 09/02/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robert Courson / EPA
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter responding to fugitive dust concerns*

Document No.: 8.01 028 09/18/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Charles Findley / EPA
Title: *Letter regarding a complaint concerning the dust that is being raised on Station Avenue along Teeter's Field*

Document No.: 8.01 029 11/05/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter responding to 9/18/86 letter concerning gravel placed on Station Avenue as part of Fast Track*

Document No.: 8.01 030 11/14/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force members / NA
Title: *Memo updating the Bunker Hill Superfund situation*

Document No.: 8.01 031 12/04/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter regarding upcoming visit to the Bunker Hill Site*

Document No.: 8.01 032 03/18/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Gary Beck / Task Force member
Title: *Letter transmitting the name and address of IDHW's contractor, CH2M Hill, as requested*

Document No.: 8.01 033 03/18/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Wayne Grotheer / IDHW, EPA
Title: *Letter and attachment regarding a letter from the City of Wardner*

Document No.: 8.01 034 03/20/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Governor Cecil Andrus / IDHW
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter responding to concerns over awarding CH2M Hill the RI/FS contract*

Document No.: 8.01 035 06/09/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Addressees / NA
Title: *5 letters to various elected officials inviting them to a 6/17/87 meeting with project participants from EPA and IDHW*

Document No.: 8.01 036 08/13/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Eric Lassfolk / Task Force Member
Title: *Letter and attachments regarding the Grouse Creek flood samples*

Document No.: 8.01 038 08/19/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: T. R. Gowan / local citizen
Title: *Letter responding to request to place name of T.R. Gowan on a list of those residents who wish to have their soil sampled*

Document No.: 8.01 039 08/19/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Virginia Kennedy / local citizen
Title: *Letter transmitting the requesting pamphlets on lead and soil*

Document No.: 8.01 040 08/19/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Larry Loftis / local citizen
Title: *Letter transmitting a requesting brochure on lead, cadmium, arsenic and zinc levels*

Document No.: 8.01 042 09/08/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Dr. and Mrs. Jeff Wombolt / local citizens
To / Orgnztn: Bryan Johnson / IDHW
Title: *Letter requesting information on received soil and litter results*

Document No.: 8.01 043 09/15/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, John Meyer / IDHW, EPA
Title: *Memo regarding calls about residential soil program notification letters*

Document No.: 8.01 044 09/23/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Duane Little / Task Force member
Title: *Letter responding to questions on IDHW scheduling of the populated areas activities*

Document No.: 8.01 045 10/01/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sam Brooks / local citizen
Title: *Letter transmitting the 1986 soil and litter samples from apartments*

Document No.: 8.01 046 11/17/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Task Force members / NS
Title: *Memo responding to Spokesman article on the Bunker Hill Superfund Project by David Bond*

Document No.: 8.01 047 08/01/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin / IDHW
Title: *Memo providing an update on community relations activities*

Document No.: 8.01 048 06/08/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin / IDHW
Title: *Letter regarding some soil work that Mr. James Dean will do and some questions he had*

Document No.: 8.01 049 06/15/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo regarding some soil work that Mr. Bill Hogan will do and some questions that he had*

Document No.: 8.01 050 06/21/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the May 1988 Progress Report*

Document No.: 8.01 051 06/22/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the June 1988 Progress Report*

Document No.: 8.01 052 07/21/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo inviting Susan Martin and Sally Martyn to a Silver Valley Fair Share picnic on 7/27/88*

Document No.: 8.01 053 08/01/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin / IDHW
Title: *Letter regarding lost 1986-1987 residential soil letter*

Document No.: 8.01 054 08/08/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin / IDHW
Title: *Letter regarding additional 1986 soil sample results for Barbara Miller*

Document No.: 8.01 055 08/18/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: Task Force Members / NA
Title: *Letter transmitting the July 1988 Progress Report*

Document No.: 8.01 056 09/14/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Letter and attachments regarding a memo to elected officials*

Document No.: 8.01 057 09/20/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the August 1988 Progress Report*

Document No.: 8.01 058 10/05/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Marlene Martin / local citizen
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Letter regarding the use of pea gravel for remediating the Gold Street Park during Fast Track*

Document No.: 8.01 059 10/05/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding the 10/15/88 radio talk show*

Document No.: 8.01 060 10/09/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Sally Goodell, Charles Brokopp / IDHW
To / Orgnztn: Addressees / NA
Title: *Generic letter to homeowners reporting levels of metals in their soils*

Document No.: 8.01 061 10/09/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell, Charles Brokopp / IDHW
To / Orgnztn: Addressees / NA
Title: *Generic letter to homeowners reporting levels of metals in their soils*

Document No.: 8.01 062 10/31/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the September 1988 Progress Report*

Document No.: 8.01 063 11/02/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: John Meyer / EPA
To / Orgnztn: Linda Wombolt / City of Wardner
Title: *Letter responding to 10/20/88 meeting regarding the proposed improvements to Main Street in Wardner*

Document No.: 8.01 064 11/08/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Marlene Martin / local citizen
Title: *Letter responding to letter of 10/05/88 regarding the use of pea gravel in remediating Gold Street Park during Fast Track*

Document No.: 8.01 065 11/17/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Karen Williams / Kootenai Environmental Alliance
Title: *Letter and attachment regarding a flow chart of players and responsibilities at the Bunker Hill site*

Document No.: 8.01 066 11/15/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the October 1988 Progress Report*

Document No.: 8.01 067 11/18/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding a Bunker Hill Tour for the Kootenai Environmental Alliance*

Document No.: 8.01 068 11/21/88 **Pages:** 6 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding commonly asked questions and answers*

Document No.: 8.01 069 12/08/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Members / Kellogg Chamber of Commerce
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Letter praising the upcoming 1989 soil removal program and asking for the use of local vendors whenever possible*

Document No.: 8.01 070 12/29/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the November 1988 Progress Report*

Document No.: 8.01 071 01/22/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Laurena Granger / Idaho Citizen's Network
To / Orgnztn: Lance Nielsen / IDHW
Title: *Letter welcoming Lance Nielsen to the Bunker Hill Project and inviting him to meet with members of ICN*

Document No.: 8.01 072 01/27/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the December 1988 Progress Report*

Document No.: 8.01 073 02/27/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the Summary of Proposed Action and the EEPC -- 1989*

Document No.: 8.01 074 03/03/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting agenda for next Task Force meeting and commenting on the EEPC*

Document No.: 8.01 075 03/07/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Joe Hauser / private citizen
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on EEPC*

Document No.: 8.01 076 03/07/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: Idaho Citizen's Network Board / Idaho Citizen's Network
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter and attachments inviting Sally Goodell to be on a panel at the 3/28/89 "Let's get the Lead Out" rally*

Document No.: 8.01 077 03/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Task Force Members / NA
Title: *Letter expressing appreciation for the work of the Task Force*

Document No.: 8.01 078 03/14/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Russ Webb / NA
Title: *Letter transmitting EEPC and Summary of Proposed Action*

Document No.: 8.01 079 03/15/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Board and members / Idaho Citizen's Network
Title: *Letter accepting the panel position at the 3/28/89 Let's Get the Lead Out rally*

Document No.: 8.01 080 03/16/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Sally Goodell, Charles Brokopp / IDHW
To / Orgnztn: Addressees / NA
Title: *Generic letter to homeowners reporting levels of metals in their soils*

Document No.: 8.01 081 03/21/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / EPA
Title: *Memo regarding community relations activities proposed for the summer 1989 soil removal program*

Document No.: 8.01 082 03/20/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the February 1989 Progress Report*

Document No.: 8.01 083 03/24/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Ruby Fisher / local citizen
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter requesting to be bought out*

Document No.: 8.01 084 03/24/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Task Force members / NA
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter asking for assistance in bringing the Superfund Cleanup to a satisfactory conclusion*

Document No.: 8.01 085 03/31/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Letter transmitting local Task Force comments on EEPC*

Document No.: 8.01 086 03/31/89 **Pages:** 45 **Confidential?** N
From/Orgnztn: Barbara Miller / Idaho Citizen's Network
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter and attachments regarding public comment on EEPC*

Document No.: 8.01 087 04/01/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Myrtle Berg / local citizen
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter commenting on the progress of the Bunker Hill Superfund Project and asking to be bought out*

Document No.: 8.01 088 04/05/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Barbara Miller / Idaho Citizen's Network
To / Orgnztn: Sally Goodell, Charles Moss / IDHW
Title: *2 letters serving as a follow up reminder about the agreement to arrange a meeting with Governor Andrus*

Document No.: 8.01 089 04/05/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Barbara Miller / Idaho Citizen's Network
Title: *Letter clarifying a comment made at the 3/28/89 rally regarding public comment*

Document No.: 8.01 090 04/05/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Larry Curry / Superintendent of Schools, SD 391
To / Orgnztn: Sally Goodell / IDHW
Title: *Letter concerning the removal of health risks in the Silver Valley*

Document No.: 8.01 091 04/12/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: NA / NA
Title: *Resolution in support of negotiations between the EPA, IDHW and Gulf Resources and Chemical Co.*

Document No.: 8.01 092 04/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Bill Scudder / Kellogg Chamber of Commerce
To / Orgnztn: William Reilly / EPA
Title: *Letter commenting on the lack of progress at the Bunker Hill Superfund Site*

Document No.: 8.01 093 04/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Bill Scudder, President / Kellogg Chamber of Commerce
To / Orgnztn: William Reilly / EPA
Title: *Letter supporting negotiations between the EPA, IDHW, and Gulf Resources and Chemical Co.*

Document No.: 8.01 094 04/13/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: Larry Curry / Superintendent of Schools, SD 391
Title: *Letter responding to 4/5/89 letter concerning removal of health risks in the Silver Valley*

Document No.: 8.01 095 04/17/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the March 1989 Progress Report*

Document No.: 8.01 096 04/18/89 **Pages:** 7 **Confidential?** N
From/Orgnztn: Richard Donovan / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letters responding to Task Force letter regarding and expedited cleanup of the Bunker Hill Superfund Site*

Document No.: 8.01 097 04/18/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Dale Hunt, Mayor / City of Smelterville
To / Orgnztn: NA / NA
Title: *Resolution in Support of negotiations between the EPA, IDHW, & Gulf Resources & Chemical Co.*

Document No.: 8.01 098 05/02/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Addressees / Idaho Citizen's Network
Title: *Letters to the Board of Directors of ICN inviting them to attend a meeting with Governor Andrus and the Task Force*

Document No.: 8.01 099 05/03/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: James Anderson / private citizen
Title: *Letter confirming receipt of comments on EEPC*

Document No.: 8.01 100 05/03/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: James Anderson / local citizen
Title: *Letter responding to comments on the EEPC*

Document No.: 8.01 101 05/03/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Ed White / local citizen
Title: *Letter regarding possession of an RV park and recommending the installation of a play area for children that includes at least one foot of clean soil*

Document No.: 8.01 102 05/03/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Bill Scudder, President / Kellogg Chamber of Commerce
Title: *Letter responding to 4/13/89 letter supporting negotiations between the EPA, IDHW, and Gulf Resources and Chemical Co.*

Document No.: 8.01 103 05/05/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Barbara Miller / Idaho Citizen's Network
Title: *Letter responding to request to meet with Governor Andrus about the Bunker Hill cleanup*

Document No.: 8.01 104 05/07/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Concerned Citizens / NA
Title: *Letter responding to petition regarding Superfund cleanup in the Silver Valley and inviting residents to attend the next Task Force meeting*

Document No.: 8.01 105 05/08/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Dale Hunt, Mayor / City of Smelterville
Title: *Letter responding to a resolution in support of negotiations between the EPA, IDHW, and Gulf Resources and Chemical Co.*

Document No.: 8.01 106 05/08/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Bill Scudder, President / Kellogg Chamber of Commerce
Title: *Letter responding to 4/13/89 letter supporting negotiations between EPA, IDHW, and Gulf Resources and Chemical Co.*

Document No.: 8.01 107 05/08/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter responding to resolution in support of negotiations between EPA, IDHW, and Gulf Resources and Chemical Co.*

Document No.: 8.01 108 05/23/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Myrtle Berg / local citizen
Title: *Letter responding to comments on the Bunker Hill Superfund Site*

Document No.: 8.01 109 05/30/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Duane Little / Task Force Chairman
To / Orgnztn: Bill Longston / EPA
Title: *Letter regarding use of local contractors and labor on the Bunker Hill Project*

Document No.: 8.01 110 05/30/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the April 1989 Progress Report*

Document No.: 8.01 111 06/28/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / Idaho Citizen's Network
To / Orgnztn: Charles Moss / IDHW
Title: *Memo regarding jobs for the Silver Valley*

Document No.: 8.01 112 07/06/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Barbara Miller / Idaho Citizen's Network
Title: *Letter and attachment responding to a request for information on Erythrocyte Protoporphyrin measurements*

Document No.: 8.01 113 07/12/89 **Pages:** 30 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Public comment on Bunker Hill Cleanup process through ICN*

Document No.: 8.01 114 07/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Shoshone County Commissioners / Shoshone County
Title: *Letter stating that the use of slag as a traction material would provide additional contamination throughout the communities*

Document No.: 8.01 115 07/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter stating that the use of slag as a traction material would provide additional contamination throughout the communities*

Document No.: 8.01 116 07/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Mike Biotti, Mayor / City of Pinehurst
Title: *Letter stating that the use of slag as a traction material would provide additional contamination throughout the communities*

Document No.: 8.01 117 07/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Dale Hunt, Mayor / City of Smelterville
Title: *Letter stating that the use of slag as a traction material would provide additional contamination throughout the communities*

Document No.: 8.01 118 07/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Dale Hunt, Mayor / City of Smelterville
Title: *Letter stating that the use of slag as a traction material would provide additional contamination throughout the communities*

Document No.: 8.01 119 07/17/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the June 1989 Progress Report*

Document No.: 8.01 120 06/19/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the May 1989 Progress Report*

Document No.: 8.01 121 07/19/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Charles Moss / IDHW
To / Orgnztn: NA / Idaho Citizen's Network
Title: *Letter regarding the ICN memo of 6/28/89 concerning job preference for Silver Valley contractors involving Superfund driven cleanup*

Document No.: 8.01 122 08/22/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Sally Martyn / EPA
Title: *Letter regarding the progress of the Bunker Hill Superfund Project*

Document No.: 8.01 123 09/13/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Philip Millam / EPA
To / Orgnztn: Barbara Miller / Idaho Citizen's Network
Title: *Letter responding to letter dated 7/5/89 regarding procedures for hiring contractors for emergency removal actions*

Document No.: 8.01 124 09/13/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Mervin Hill, Mayor / City of Kellogg
Title: *Letter responding to letter of 8/22/89 regarding progress of the Bunker Hill Superfund Project*

Document No.: 8.01 125 10/24/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the September 1989 Progress Report*

Document No.: 8.01 128 12/14/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the October 1989 Progress Report*

Document No.: 8.01 129 01/11/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the November 1989 Progress Report*

Document No.: 8.01 130 01/15/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the December 1989 Progress Report*

Document No.: 8.01 131 03/05/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the January 1990 Progress Report*

Document No.: 8.01 132 03/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the February 1990 Progress Report*

Document No.: 8.01 133 03/21/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Governor Cecil Andrus / IDHW
To / Orgnztn: Barbara Miller / Idaho Citizen's Network
Title: *Letter responding to letter asking for intervention in examining actions within EPA that may have been responsible for clean-up delays on the Bunker Hill Site*

Document No.: 8.01 134 04/06/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the March 1990 Progress Report*

Document No.: 8.01 135 04/17/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Linda Pickarski / Idaho Citizen's Network
To / Orgnztn: Thomas Dunne / EPA
Title: *Letter responding to letter of 3/2/90 commenting on the activities of EPA at the Bunker Hill site*

Document No.: 8.01 136 04/18/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding the Bunker Hill Superfund Survey conducted by ICN*

Document No.: 8.01 137 05/16/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the April 1990 Progress Report*

Document No.: 8.01 138 06/01/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mike Thomas / IDHW
To / Orgnztn: Ed White / local citizen
Title: *Letter responding to inquiry about lead levels in the air and soil at the April Task Force meeting*

Document No.: 8.01 139 06/11/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the May 1990 Progress Report*

Document No.: 8.01 140 07/03/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Kevin Oates / EPA
To / Orgnztn: Jerry Madsen / private citizen
Title: *Letter concerning status of the cleanup activities at the Bunker Hill Superfund site*

Document No.: 8.01 141 07/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force member / NA
Title: *Letter transmitting the June 1990 Progress Report*

Document No.: 8.01 142 07/30/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Bill Lytle / Task Force member
Title: *Letter transmitting two most recent IDHW Bunker Hill budget summaries*

Document No.: 8.01 143 08/06/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson, Fritz Dixon / IDHW
To / Orgnztn: Addressees / NA
Title: *Generic letter to homeowners reporting levels of lead, zinc, cadmium, arsenic, and copper in their soils*

Document No.: 8.01 144 08/14/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the July 1990 Progress Report*

Document No.: 8.01 145 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / Concerned Citizens of Kellogg
To / Orgnztn: Governor John Evans / IDHW
Title: *Letter regarding the recontamination of Fast Track sites by fugitive dust*

Document No.: 8.01 146 11/11/11 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / Idaho Citizen's Network
To / Orgnztn: NA / NA
Title: *Silver Valley Wish List for Bunker Hill Superfund Clean Up*

Document No.: 8.01 147 11/11/11 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / Idaho Citizen's Network
To / Orgnztn: NA / NA
Title: *Flyer put out by Idaho Citizen's Network requesting an investigation into Robie Russell*

Document No.: 8.01 148 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / Idaho Citizen's Network
To / Orgnztn: NA / NA
Title: *Petition calling for a special investigation of the EPA employees who have and are working with the Bunker Hill Superfund Site*

Document No.: 8.01 149 09/27/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Lance Nielsen / IDHW
To / Orgnztn: Task Force members / NA
Title: *Letter transmitting the August 1989 Progress Report*

Document No.: 8.01 150 08/24/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Nick Ceto / EPA
To / Orgnztn: Gerald Madsen / private citizen
Title: *Letter regarding concerns about Page Ponds*

Document No.: 8.01 151 08/08/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: William Hogan / private citizen
Title: *Letter regarding concerns about recontamination*

Document No.: 8.01 152 10/12/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Larry Curry / Superintendent, SD #391
Title: *Letter transmitting results from interior dust sampling in 1989*

Document No.: 8.01 153 05/03/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Letter regarding concerns of David Olson about recontamination*

Document No.: 8.01 154 09/10/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding concerns of Mayor Mervin Hill*

Document No.: 8.01 155 02/27/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Goodell / IDHW
To / Orgnztn: Terry Douglas / Task Force Councilman
Title: *Letter regarding the 1989 Residential Soils Removal*

Document No.: 8.01 156 10/20/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Scott Peterson / IDHW
To / Orgnztn: Mike Biotti / private citizen
Title: *Letter regarding fugitive dust control on property*

Document No.: 8.01 157 10/29/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding concerns of Jerry Madsen with residential soil storage at the Page Ponds Sewer Treatment Plant*

Document No.: 8.01 158 11/14/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: Robert Launhardt / Sunshine Mining Company
To / Orgnztn: Sally Martyn, Nick Ceto / EPA
Title: *Letter transmitting EPA Bunker Hill Site Investigation - Report to the Press*

Document No.: 8.01 159 10/31/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding the task force workshop of 10/24/90*

Document No.: 8.01 160 12/13/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Bill Lytle / Task Force member
Title: *Letter transmitting the November 1990 Monthly Progress Report*

Document No.: 8.01 161 12/13/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Nick Ceto / EPA
To / Orgnztn: Gerald Madsen / local citizen
Title: *Letter regarding property neighboring Bunker Hill Superfund Site, Residential Soils Disposal Facility*

Document No.: 8.01 162 01/07/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robert Launhardt / Sunshine Mining Company
To / Orgnztn: Sally Martyn / EPA
Title: *Letter regarding concerns with granulated smelter slag and the impact it has on some phases of metal analysis*

Document No.: 8.01 164 09/14/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Duane Little / Task Force member
To / Orgnztn: Charles Findley / EPA
Title: *Letter requesting expedition of project*

Document No.: 8.01 165 04/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Kevin Oates / EPA
To / Orgnztn: Lauren Wiley / private citizen
Title: *Responding to letter requesting copies of documents related to disposal of residential soils at the Page Pond area*

Document No.: 8.01 166 03/24/89 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / Task Force members
To / Orgnztn: Sandy Patano / District Assistance
Title: *Letter asking for assistance in the Superfund cleanup*

Document No.: 8.01 167 04/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Bill Scudder, President / Kellogg Area Chamber of Commerce
To / Orgnztn: William Reilly / EPA
Title: *Bunker Hill Superfund cleanup*

Document No.: 8.01 168 04/13/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Steve Scozzaro / Wilkie, Far, and Gallager
Title: *Letter enclosing update on Bunker Hill Site*

Document No.: 8.01 169 08/13/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Eric Lassfolk, Councilman / Smelterville City Hall
Title: *Letter regarding sample analysis of soil collected in Smelterville following Grouse Creek Flood in July of 1987*

Document No.: 8.01 170 05/02/89 **Pages:** 10 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: NA / Task Force members
Title: *May 4, 1989 Meeting with Governor Andrus*

Document No.: 8.01 171 01/26/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Steve Symms / U.S. Senator
To / Orgnztn: NA / Panhandle Health District
Title: *Letter acknowledging receipt of Bunker Hill Task Force meeting*

Document No.: 8.01 172 07/21/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Slag*

Document No.: 8.01 173 07/06/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Barbara Miller / private citizen
Title: *Letter enclosing information on Erythrocyte and Protoporphyrin measurements*

Document No.: 8.01 174 12/01/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Addressees / NA
Title: *Letter regarding no-host luncheon and update on Bunker Hill Project*

Document No.: 8.01 175 07/01/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Superfund Project Team / NA
To / Orgnztn: Silver Valley Task Force / NA
Title: *Silver Valley Superfund Project*

Document No.: 8.01 176 06/01/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Superfund Project Team / NA
To / Orgnztn: Addressees / NA
Title: *Update on Bunker Hill Project*

Document No.: 8.01 177 08/19/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Task Force / NA
To / Orgnztn: NA / NA
Title: *Statement by Bunker Hill Superfund Task Force*

Document No.: 8.01 178 09/08/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Duane Little, Chairman / Superfund Task Force
To / Orgnztn: Charles Findley / EPA
Title: *Letter asking for expedited cleanup*

Document No.: 8.01 179 10/23/87 **Pages:** 15 **Confidential?** N
From/Orgnztn: Barry Tierney / Pintlar
To / Orgnztn: Addressees / NA
Title: *Letter enclosing Comments Gulf made to the State with respect to the State's Work Plan on August 11, 1987*

Document No.: 8.01 180 02/26/88 **Pages:** 13 **Confidential?** N
From/Orgnztn: Duane, Little, Chairman / Superfund Task Force
To / Orgnztn: Charles Moss / EPA
Title: *Overview of expenditures and revenue sources specific to Superfund activities*

Document No.: 8.01 181 04/25/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Susan Martin / IDHW
To / Orgnztn: Task Force members / NA
Title: *Update on IDHW's activities and to set a date for the next Task Force meeting*

Document No.: 8.01 182 03/24/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Task Force members / NA
To / Orgnztn: Sally Martyn / EPA
Title: *Letter asking for satisfactory conclusion of cleanup at the Bunker Hill site*

Document No.: 8.01 183 03/31/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: James McClure / U.S. Senator
To / Orgnztn: Robie Russell / EPA
Title: *Letter enclosing copy of Task Force letter concerning negotiations between EPA and Gulf*

Document No.: 8.01 184 05/07/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Addressees / NA
Title: *Letter enclosing response to Task Force regarding concerns over cleanup*

Document No.: 8.01 185 10/31/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Duane Little, Chairman / Task Force
To / Orgnztn: Addressees / NA
Title: *Letter acknowledging efforts associated with Residential Soil Removal Program*

Document No.: 8.01 186 10/29/84 **Pages:** 2 **Confidential?** N
From/Orgnztn: Shoshone Board of County Commissioners / Shoshone County
To / Orgnztn: Wayne Grotheer / EPA
Title: *Letter regarding proposed Superfund Project for Remedial Investigation and Feasibility Study at Bunker Hill*

Document No.: 8.01 187 08/21/84 **Pages:** 1 **Confidential?** N
From/Orgnztn: Kathryn Davidson / Superfund Program management
To / Orgnztn: Senator Lannen / NA
Title: *Letter acknowledging visit with Phil Millam*

Document No.: 8.01 188 01/07/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jack McGraw / EPA
To / Orgnztn: Senator McClure / U.S. Senate
Title: *Response to letter of November 15, 1984*

Document No.: 8.01 189 03/08/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: Ernesta Barnes / EPA
To / Orgnztn: Steve Symms / U.S. Senate
Title: *Letter responding to correspondence between Wes Whiteman*

Document No.: 8.01 190 06/03/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: James McClure / U.S. Senate
To / Orgnztn: Gregg Ward / EPA
Title: *Letter transmitting letter from Velva Goldsmith*

Document No.: 8.01 191 11/11/11 **Pages:** 2 **Confidential?** N
From/Orgnztn: Dorothy Newell / private citizen
To / Orgnztn: NA / NA
Title: *Letter asking for information on lead effects on people*

Document No.: 8.01 192 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: Steve Symms / U.S. Senate
To / Orgnztn: NA / EPA
Title: *Letter requesting information*

Document No.: 8.01 193 08/15/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rose Bowman / IDHW
To / Orgnztn: D. Sheppard / private citizen
Title: *Letter concerning blowing dust in Kellogg*

Document No.: 8.01 194 04/13/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Terry Douglas, Councilman / City of Kellogg
To / Orgnztn: Robie Russel / EPA
Title: *Letter acknowledging visit to the Silver Valley*

Document No.: 8.01 195 11/27/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Governor Andrus / State of Idaho
To / Orgnztn: Robie Russel / EPA
Title: *Letter concerning cleanup at Bunker Hill Superfund Site*

Document No.: 8.01 196 04/16/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robie Russel / EPA
To / Orgnztn: Governor Andrus / State of Idaho
Title: *Letter acknowledging cleanup support*

Document No.: 8.01 197 06/03/88 **Pages:** 300 **Confidential?** N
From/Orgnztn: David Mead / IDHW board members
To / Orgnztn: Robie Russell / EPA
Title: *Kellogg Superfund Remediation Priorities*

Document No.: 8.01 198 05/06/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: R.M. Donohue, Superintendent / Mullan School District
To / Orgnztn: Sally Martyn / EPA
Title: *Letter concerning contamination of building grounds that may be used for storage*

Document No.: 8.01 199 06/20/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Sally Martyn / EPA
To / Orgnztn: Ellen Scriven / private citizen
Title: *Letter responding to inquiry regarding Superfund activities and downstream water quality*

Document No.: 8.01 200 06/05/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Ellen Scriven / private citizen
To / Orgnztn: NA / EPA
Title: *Letter requesting information on Superfund Activities and downstream water quality in Cataldo, Idaho*

Document No.: 8.01 201 09/07/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Findley / EPA
To / Orgnztn: Charles Moss / IDHW
Title: *Letter acknowledging attendance to 1988 meeting for the Bunker Hill Project*

Document No.: 8.01 203 11/29/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Grechen Schmidt / EPA
To / Orgnztn: Gary Sandusky / Idaho Citizen's Network
Title: *Letter regarding membership requirements, and help from large organizations*

Document No.: 8.01 204 11/30/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Grechen Schmidt / EPA
To / Orgnztn: Lauren Wiley / Idaho Citizen's Network
Title: *Letter responding to information request*

Document No.: 8.01 205 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Steve Symms / U.S. Senate
Title: *Letter regarding Superfund cleanup proposed for summer in Kellogg and Smelterville areas*

Document No.: 8.01 206 10/13/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Curt Fransen / State of Idaho
To / Orgnztn: T. Barry Tierney / Pintlar
Title: *1989 Blood Lead Data*

Document No.: 8.01 208 05/19/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Board of Health and Welfare / NA
To / Orgnztn: NA / NA
Title: *Resolution of Idaho Board of Health and Welfare; Kellogg-Superfund Program*

Document No.: 8.01 209 07/18/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Richard Donovan / IDHW
To / Orgnztn: David Mead / Idaho Board of Health and Welfare
Title: *Letter regarding to Board's resolution*

Document No.: 8.01 210 11/11/11 **Pages:** 7 **Confidential?** N
From/Orgnztn: NA / Idaho Citizen's Network
To / Orgnztn: NA / IDHW,EPA
Title: *Silver Valley Wish List from Idaho Citizen's Network*

Document No.: 8.01 211 04/21/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Dale Hunt, Mayor / City of Smelterville
To / Orgnztn: NA / EPA
Title: *Resolution asking EPA to bring Clean-up in Smelterville to a satisfactory conclusion*

Document No.: 8.01 212 04/21/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russel / EPA
To / Orgnztn: Steve Symms / U.S. Senate
Title: *Letter responding to letter of March 21, 1989, regarding William Reilly's concern about the Bunker Hill Superfund project*

Document No.: 8.01 213 11/14/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Terry Douglas, Councilman / City of Kellogg
To / Orgnztn: John Meyer / EPA
Title: *Letter enclosing information on the Kellogg Gondola Project*

Document No.: 8.01 214 06/09/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Larry Craig / House of Representatives
Title: *Letter responding to petition received on the Bunker Hill Clean-up*

Document No.: 8.01 215 04/27/89 **Pages:** 19 **Confidential?** N
From/Orgnztn: Larry Craig / House of Representatives
To / Orgnztn: Floyd Winsett / EPA
Title: *Regarding petition sent to congressman Craig*

Document No.: 8.01 216 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Steve Symms / U.S. Senate
Title: *Regarding letter from Mr. Foster on 02/14/89 about Superfund clean-up proposed for Kellogg and Smelterville areas in the summer*

Document No.: 8.01 217 08/24/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Walter Steed / EPA
Title: *Letter concerning Wardner street, curb, and gutter project*

Document No.: 8.01 218 04/05/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Larry Curry, Superintendent / City of Kellogg
To / Orgnztn: Sally Martyn / EPA
Title: *Letter urging expedited clean-up*

Document No.: 8.01 219 03/24/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / Task Force
To / Orgnztn: Robie Russell / EPA
Title: *Letter requesting for expedited and thorough clean-up*

Document No.: 8.01 220 06/01/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Dale Hunt, Mayor / City of Smelterville
Title: *Response to concerns regarding Superfund clean-up*

Document No.: 8.01 221 06/01/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Larry Curry, Superintendent / City of Kellogg
Title: *Regarding Bunker Hill Superfund Site*

Document No.: 8.01 222 07/05/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / Idaho Citizen's Network
To / Orgnztn: Sally Martyn / EPA
Title: *Regarding questions by ICN*

Document No.: 8.01 227 07/20/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Lois Gibbs / CCHW
To / Orgnztn: William Reilly / EPA
Title: *Letter complaining about management of Superfund Site*

Document No.: 8.01 228 05/27/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: Governor Andrus / State of Idaho
To / Orgnztn: Robie Russell / EPA
Title: *Letter regarding resolution passed by Idaho Board of Health and Welfare*

Document No.: 8.01 229 09/09/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: David Mead, Chairman / Idaho Board of Health and Welfare
Title: *Letter responding to June 3, 1988, letter regarding passed resolution*

Document No.: 8.01 230 07/18/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Richard Donovan / IDHW
To / Orgnztn: David Mead, Chairman / Idaho Board of Health and Welfare
Title: *Letter responding to Board's resolution passed on May 19*

Document No.: 8.01 232 08/23/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jonathan Cannon / EPA
To / Orgnztn: Lois Gibbs / CCHW
Title: *Responding to Lois Gibb's concern of the level of funding for the Bunker Hill Site*

Document No.: 8.01 233 06/25/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Thomas Dunne / EPA
To / Orgnztn: Richard Bauer / U.S. Dept. of Housing and Urban
Title: *Regarding follow-up of meeting regarding status of Bunker Hill clean-up*

Document No.: 8.01 235 02/09/90 **Pages:** 5 **Confidential?** N
From/Orgnztn: Robie Russell / EPA
To / Orgnztn: Marvin Vandenberg / House of Representatives, Idaho
Title: *Regarding January 17, 1990, letter on the Bunker Hill Site*

Document No.: 8.01 236 10/13/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Terry Douglas, Councilman / City of Kellogg
To / Orgnztn: John Meyer / EPA
Title: *Letter expressing concerns about Gondola project*

Document No.: 8.01 237 06/28/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Maurice Pellisier, Mayor / City of Wallace
To / Orgnztn: NA / NA
Title: *Resolution #38 on employment*

Document No.: 8.01 238 03/01/91 **Pages:** 5 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Addressees / NA
Title: *Letter to property owners*

Document No.: 8.01 239 06/09/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / ICN
To / Orgnztn: NA / IDHW
Title: *Superfund Fact Sheet*

Document No.: 8.01 240 06/09/89 **Pages:** 6 **Confidential?** N
From/Orgnztn: Robbie Russell / EPA
To / Orgnztn: Larry Craig / House of Representatives
Title: *Response to petition on cleanup of Bunker Hill Site*

Document No.: 8.01 241 05/27/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Governor Andrus / State of Idaho
To / Orgnztn: Robie Russell / EPA
Title: *Resolution concerning Bunker Hill Superfund Project*

Document No.: 8.01 242 06/11/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *ICN*

Document No.: 8.01 243 05/20/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Meyer / U.S.EPA
To / Orgnztn: Duane Little / Superfund Task Force
Title: *Response re: Blowing Dust from the CIA*

Document No.: 8.01 244 04/22/91 **Pages:** 6 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Phil Millam / USEPA
Title: *Letter RE: Packet of information from PAC about commercial loans at BH SF Site.*

Document No.: 8.01 245 05/02/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Duane Little / Task Force Member
To / Orgnztn: Rob Hanson / IDHW
Title: *Blowing Dust from the CIA*

Document No.: 8.01 246 05/08/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Dana Rasmussen / U.S. EAP
To / Orgnztn: Larry LaRocco / US House of Representatives
Title: *Response to letter to LaRocco from ICN.*

Document No.: 8.01 247 05/07/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill / Mayor, Kellogg
To / Orgnztn: Rob Hanson / IDHW
Title: *Request for action on the blowing dust in Kellogg.*

Document No.: 8.01 248 06/06/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Meyer / US EPA
To / Orgnztn: Mervin Hill / Mayor, Kellogg
Title: *Response to letter RE: Blowing Dust from the CIA*

Document No.: 8.01 249 05/28/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Duane Little / Silver Valley Task Force
Title: *Response to letter RE: Blowing Dust from the CIA*

Document No.: 8.01 250 05/31/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Rob Hanson / IDHW
To / Orgnztn: Mervin Hill / Mayor, Kellogg
Title: *Response to letter RE: Blowing Dust problem in Kellogg*

Document No.: 8.01 251 06/03/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: David Mead / IDHW
To / Orgnztn: Robie Russell / USEPA
Title: *Remediation Priorities*

Document No.: 8.01 901 11/17/89 **Pages:** 150 **Confidential?** Y
From/Orgnztn: Rob Hanson, Fritz Dixon / IDHW
To / Orgnztn: Addressees / NA
Title: *Letter to homeowners reporting levels of lead in their house dust*

Document No.: 8.01 902 08/13/87 **Pages:** 35 **Confidential?** Y
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: Addressees / NA
Title: *Letters to homeowners reporting levels of lead, zinc, cadmium, and arsenic in their soils*

Document No.: 8.01 903 09/04/87 **Pages:** 54 **Confidential?** Y
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: Addressees / NA
Title: *Letters to homeowners reporting levels of lead, zinc, cadmium, and arsenic in their soils*

Document No.: 8.01 904 11/22/89 **Pages:** 1 **Confidential?** Y
From/Orgnztn: Fritz Dixon / IDHW
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Memo regarding house dust letters to residents and homeowners in Kellogg*

Document No.: 8.02 001 02/01/87 **Pages:** 60 **Confidential?** N
From/Orgnztn: NA / IDHW, PHD
To / Orgnztn: NA / NA
Title: *Community Relations Plan*

Document No.: 8.02 002 12/08/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Tim Brincefield / EPA
To / Orgnztn: Addressees / NA
Title: *Memo summarizing key community relations requirements for remedial and removal projects*

Document No.: 8.02 003 07/01/90 **Pages:** 25 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Community Relations Plan Update*

Document No.: 8.03 001 03/02/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Public notice inviting public comment on EEPC and Summary of Proposed Action*

Document No.: 8.03 002 03/03/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Public Notice inviting public comment on the Summary of Proposed Action and the EEPC*

Document No.: 8.03 003 01/12/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo detailing documents in the Bunker Hill Public Information Repositories*

Document No.: 8.03 004 04/23/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Articles in paper concerning EPA and Public Comment*

Document No.: 8.03 005 05/24/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Extension of Public comment on Proposed Clean-up*

Document No.: 8.03 006 05/22/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Superfund Task Force Meeting*

Document No.: 8.03 007 05/21/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Superfund Task Force Meeting announcement*

Document No.: 8.03 008 05/25/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Advertisement of the Proposed Clean-up for Residential Soils public comment period.*

Document No.: 8.03 009 04/30/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / US EPA
To / Orgnztn: N/A / N/A
Title: *Invitation of public comment on the Proposed Clean-up of Residential Soils*

Document No.: 8.04 001 05/16/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes from the 5/16/85 Task Force meeting*

Document No.: 8.04 002 06/27/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Agenda for the 6/27/85 Task Force meeting*

Document No.: 8.04 003 09/19/85 **Pages:** 12 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes of the 9/19/85 Task Force meeting*

Document No.: 8.04 004 10/24/85 **Pages:** 4 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes and handouts for the 10/24/85 Task Force meeting*

Document No.: 8.04 005 12/17/85 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Gloria / TerraGraphics
Title: *Letter regarding the 12/5/85 Task Force meeting*

Document No.: 8.04 006 01/09/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes from the Task Force meeting of 1/9/86*

Document No.: 8.04 007 01/16/86 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes from the Task Force meeting of 1/16/86*

Document No.: 8.04 008 03/19/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Wayne Grotheer / EPA
To / Orgnztn: Cobb, Harr, Appel, von Lindern, etc / PHD, IDHW, WWC, TerraGrap
Title: *Memo regarding 3/20/86 Smelterville City Council meeting*

Document No.: 8.04 009 03/31/86 **Pages:** 9 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Project Team / NA
Title: *Memo regarding the Task Force meeting of 03/20/86*

Document No.: 8.04 010 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Chapman / IDHW, EPA, TerraGraphics
Title: *Memo regarding 4/14/86 Kellogg Theme Committee meeting*

Document No.: 8.04 011 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Chapman / IDHW, EPA, TerraGraphics
Title: *Memo regarding a 4/8/86 Kellogg Kiwanis Club meeting*

Document No.: 8.04 012 04/17/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Appel / IDHW, EPA, TerraGraphics,
Title: *Memo regarding a 4/9/86 Kellogg City Council meeting*

Document No.: 8.04 013 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Appel / IDHW, EPA, TerraGraphics,
Title: *Memo regarding a 4/7/86 Smelterville City Council meeting*

Document No.: 8.04 014 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Appel / IDHW, EPA, TerraGraphics,
Title: *Memo regarding a 4/7/86 Smelterville City Council meeting*

Document No.: 8.04 015 04/17/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Appel / IDHW, EPA, TerraGraphics,
Title: *Memo regarding 4/9/86 Kellogg City Council meeting*

Document No.: 8.04 016 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Grotheer, Harr, von Lindern, Chapman / EPA, IDHW, TerraGraphics
Title: *Memo regarding 4/15/86 public meeting on PCBs*

Document No.: 8.04 017 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Appel / IDHW, EPA, TerraGraphics,
Title: *Memo regarding a 4/9/86 Wardner City Council meeting*

Document No.: 8.04 018 04/17/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Harr, Grotheer, von Lindern, Appel / IDHW, EPA, TerraGraphics,
Title: *Memo regarding 4/7/86 Smelterville City Council meeting*

Document No.: 8.04 019 05/15/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: von Lindern, Harr, Grotheer, Appel / TerraGraphics, IDHW, EPA,
Title: *Memo regarding a 5/14/86 Wardner City Council meeting*

Document No.: 8.04 020 05/15/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: von Lindern, Harr, Grotheer, Appel / TerraGraphics, IDHW, EPA,
Title: *Memo regarding a 5/14/86 Kellogg City Council meeting*

Document No.: 8.04 021 02/24/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Wayne Grotheer / IDHW, EPA
Title: *Memo regarding a meeting with the Kootenai County Environmental Alliance*

Document No.: 8.04 022 02/27/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mervin Hill, Mayor / City of Kellogg
To / Orgnztn: Governor Cecil Andrus / IDHW
Title: *Letter regarding the 2/9/87 meeting of the Silver Valley Trustees*

Document No.: 8.04 023 03/09/87 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes and agenda for the 3/9/87 Task Force meeting*

Document No.: 8.04 024 04/16/87 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes of the 4/16/87 Task Force meeting*

Document No.: 8.04 025 05/21/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Wayne Grotheer / IDHW, EPA
Title: *Memo regarding a luncheon presentation to the Kiwanis Club*

Document No.: 8.04 026 09/15/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Bryan Johnson, Sally Martyn, Doug C / IDHW, EPA, CH2M Hill
Title: *Memo regarding the 8/20/87 Task Force workshop*

Document No.: 8.04 027 04/29/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo regarding a meeting with the North Idaho Pensioners 4/27/88*

Document No.: 8.04 028 06/30/88 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes for the 6/30/88 Task Force meeting*

Document No.: 8.04 029 07/21/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo regarding a meeting with the Shoshone County Board of Realtors*

Document No.: 8.04 030 08/01/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo regarding a Chamber of Commerce meeting on 7/28/88*

Document No.: 8.04 031 09/08/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes for the 9/8/88 Task Force meeting*

Document No.: 8.04 032 09/08/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Memo regarding a meeting with Shoshone County Realtors Association*

Document No.: 8.04 033 09/13/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Susan Martin, Sally Martyn / IDHW, EPA
Title: *Letter regarding the 9/7/88 elected officials meeting*

Document No.: 8.04 034 10/17/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo and attachments regarding the attenders at the 7/28/88 and 9/8/88 Task Force meetings*

Document No.: 8.04 035 10/19/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes for the 10/19/88 Task Force meeting*

Document No.: 8.04 036 02/16/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes of the 2/16/89 Task Force meeting*

Document No.: 8.04 037 04/04/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Letter regarding a meeting with concerned citizens 3/21/89*

Document No.: 8.04 038 06/14/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding the 1989 Homeowner Meeting on 5/17/89*

Document No.: 8.04 039 06/15/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding the 5/4/89 meeting between Governor Andrus, the Task Force, and Idaho Citizen's Network*

Document No.: 8.04 040 06/22/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding the Task Force workshop of 6/25/89*

Document No.: 8.04 041 07/06/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Memo regarding the Task Force workshop on 6/28/89*

Document No.: 8.04 042 07/06/89 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Goodell, Sally Martyn / IDHW, EPA
Title: *Letter and attachments regarding 6/28/89 meeting with a number of local contractors and members of Idaho Citizen's Network*

Document No.: 8.04 043 09/25/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn / EPA
Title: *Memo regarding meeting with elected officials of Kellogg, Wardner, and Shoshone County about the use of slag as a traction material during the winter months*

Document No.: 8.04 044 10/02/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding a 9/21/89 meeting with the Kellogg Chamber of Commerce*

Document No.: 8.04 045 11/07/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding a 10/23/89 ICN meeting*

Document No.: 8.04 046 11/29/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding a 11/11/89 meeting with Barbara Miller of ICN and Lynda Peros of Gore and Storrie Limited*

Document No.: 8.04 047 12/18/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding an ICN meeting on 12/13/89 Jerry Cobb*

Document No.: 8.04 048 02/23/90 **Pages:** 16 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Letter and attachments regarding a Coeur d'Alene River Basin Interagency Group meeting*

Document No.: 8.04 049 04/11/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo regarding a 4/3/90 meeting with the City of Pinehurst*

Document No.: 8.04 050 04/12/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes and agenda for the 4/12/90 Task Force meeting*

Document No.: 8.04 051 05/21/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Memo and attachments regarding a Hazardous Waste Disposal Workshop put on by ICN on 3/7/90*

Document No.: 8.04 052 06/08/90 **Pages:** 7 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Letter and attachments documenting a meeting held for the first sixty home owners selected for the 1990 Removal Action*

Document No.: 8.04 053 07/09/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson, Sally Martyn / IDHW, EPA
Title: *Letter regarding ICN-ATSDR meeting*

Document No.: 8.04 054 07/19/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes of 7/19/90 Task Force Meeting*

Document No.: 8.04 055 08/24/89 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Minutes and agenda from 8/24/89 Task Force meeting*

Document No.: 8.04 056 12/15/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: NA / Task Force members
To / Orgnztn: NA / NA
Title: *Summary of Task Force meeting*

Document No.: 8.04 057 09/19/85 **Pages:** 30 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Handout for Task Force meeting; IRM status report*

Document No.: 8.04 058 06/26/85 **Pages:** 40 **Confidential?** N
From/Orgnztn: Ian von Lindern / TerraGraphics
To / Orgnztn: NA / NA
Title: *Historical Lead Health Exposure Presentation*

Document No.: 8.04 059 06/27/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of presentation on data gathering and analysis effort*

Document No.: 8.04 060 06/27/85 **Pages:** 7 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Agenda for Task Force meeting*

Document No.: 8.04 061 09/23/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Member / NA
Title: *Regarding cancellation of September, 1987 Task Force Meeting*

Document No.: 8.04 062 08/14/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *August 20, 1987 Work Shop*

Document No.: 8.04 063 12/05/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Regarding Task Force Meeting and information*

Document No.: 8.04 064 08/01/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of Lead Screening*

Document No.: 8.04 065 10/24/85 **Pages:** 13 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of Task Force Meeting*

Document No.: 8.04 066 10/24/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Remedial Groupings--Public IRM Sites handout for Task Force Meeting*

Document No.: 8.04 067 02/13/86 **Pages:** 30 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Cadmium handout for Task Force meeting*

Document No.: 8.04 068 09/18/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / TerraGraphics
To / Orgnztn: NA / NA
Title: *Residential Soils Survey Report*

Document No.: 8.04 069 07/09/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *Next Task Force Meeting on August 7, 1986*

Document No.: 8.04 070 06/18/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of Task Force Meeting*

Document No.: 8.04 071 05/06/87 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *Cancellation of May 14, 1987 Task Force Meeting*

Document No.: 8.04 072 07/14/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Bunker Hill Task Force Meeting*

Document No.: 8.04 073 08/13/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of Silver Valley Task Force Meeting*

Document No.: 8.04 074 12/01/86 **Pages:** 4 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary of presentations at Task Force meeting*

Document No.: 8.04 075 10/12/88 **Pages:** 4 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *Workshop*

Document No.: 8.04 077 10/25/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Summary: Bunker Hill Task Force meeting*

Document No.: 8.04 078 03/21/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *ICN meeting*

Document No.: 8.04 079 03/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *USEPA Region 10 Administrator Meetings in Kellogg*

Document No.: 8.04 080 03/15/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *Site Tour: Dana Rasmussen, USEPA Region 10 Administrator*

Document No.: 8.04 081 03/06/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / EPA, IDHW
Title: *Task Force meeting- Potentially Responsible Parties*

Document No.: 8.04 082 02/21/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Task Force Meeting Agenda*

Document No.: 8.04 083 02/16/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / Panhandle Health District
To / Orgnztn: NA / IDHW
Title: *Bunker Hill Superfund Task Force Meeting*

Document No.: 8.04 084 03/02/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Task Force Members / NA
Title: *March 9, Workshop*

Document No.: 8.04 085 05/23/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / Panhandle Health District
To / Orgnztn: NA / NA
Title: *Task Force Meeting Agenda and summary*

Document No.: 8.04 086 07/28/88 **Pages:** 6 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Presentation to Bunker Hill SuperFund Task Force*

Document No.: 8.04 087 05/23/91 Pages: 1 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 088 10/25/90 Pages: 2 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 089 11/16/89 Pages: 3 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 090 05/18/89 Pages: 2 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 091 02/16/89 Pages: 3 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 092 07/28/88 Pages: 7 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 093 05/12/88 Pages: 4 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 094 12/10/87 Pages: 4 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 095 08/13/87 Pages: 1 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 096 06/18/87 Pages: 3 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 097 02/05/87 Pages: 5 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 098 12/11/86 Pages: 4 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 099 09/18/86 Pages: 11 Confidential? N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 100 05/29/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 101 04/10/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 102 03/20/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 103 02/13/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 104 10/24/85 **Pages:** 16 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.04 105 08/01/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Minutes Task Force Meeting*

Document No.: 8.05 001 10/22/84 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 002 01/30/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 003 02/21/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: Randall Smith / EPA
To / Orgnztn: Editorial Page Editor / North Idaho Press
Title: *News Release*

Document No.: 8.05 004 03/13/85 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / Panhandle Health District
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 005 03/18/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 006 03/19/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: Vernon Houk / Center for Environmental Health
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 007 06/21/85 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 008 07/26/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 009 09/10/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: John Stocks / Idaho Fair Share
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 010 09/11/85 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Fact Sheet: draft Interim Site Characterization Report*

Document No.: 8.05 011 03/25/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *Fact Sheet: Fast Track Activities*

Document No.: 8.05 012 05/22/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 013 06/25/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 014 09/29/86 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 015 12/01/86 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 016 01/29/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Shoshone County News Press / NA
Title: *News Release*

Document No.: 8.05 017 03/02/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 018 06/20/88 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / IDHW
To / Orgnztn: Interested Parties / NA
Title: *Letter announcing the RI/FS Work Plan for the populated areas*

Document No.: 8.05 019 02/13/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Shoshone News Press / NA
Title: *News Release*

Document No.: 8.05 020 03/15/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Shoshone County News-Press / NA
Title: *News Release*

Document No.: 8.05 021 06/22/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 022 12/01/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Fact Sheet: General Update*

Document No.: 8.05 023 02/26/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Fact Sheet: Inspector General's Report*

Document No.: 8.05 024 03/19/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Fact Sheet: Permanent disposal facility at Page Ponds for residential soils*

Document No.: 8.05 025 04/09/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Fact Sheet: Residential Soils Removal, Smelter Complex Action, Non-populated Investigations, and Task Force Meeting on 4/12/90*

Document No.: 8.05 026 05/14/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 027 05/17/90 **Pages:** 2 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 028 05/23/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: NA / Shoshone County News-Press
Title: *News Release*

Document No.: 8.05 029 06/05/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *News Release*

Document No.: 8.05 030 07/24/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / NA
To / Orgnztn: NA / NA
Title: *Superfund Fact Sheet regarding Hillside Revegetation*

Document No.: 8.05 031 07/24/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Fact Sheet: EPA Requests Potentially Responsible Parties to Conduct Hillside Work; An Update on the Residential Soils Removal Activities*

Document No.: 8.05 032 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Fact Sheet: The Superfund Process at Bunker Hill*

Document No.: 8.05 033 10/01/90 **Pages:** 22 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Fact Sheet: Risk Assessment/Data Evaluation Report*

Document No.: 8.05 034 12/12/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *EPA News Release*

Document No.: 8.05 035 01/18/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: NA / EPA
To / Orgnztn: NA / NA
Title: *Summary of accomplishments for the Bunker Hill Superfund Site*

Document No.: 8.05 036 05/12/87 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Area Gardeners / NA
Title: *Vegetable Gardens within the Bunker Hill Superfund Site*

Document No.: 8.05 037 05/12/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mary Collison / NA
To / Orgnztn: NA / NA
Title: *Superfund Public Comments Due*

Document No.: 8.05 038 03/01/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *BH SF Site Update*

Document No.: 8.05 039 01/01/87 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Fact Sheet The Bunker Hill SF Site Process*

Document No.: 8.05 040 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Fact Sheet Draft Interim Site Characterization Report*

Document No.: 8.05 041 05/25/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Ed McDonald / N/A
To / Orgnztn: N/A / N/A
Title: *Advertisement: EPA Discusses SuperFund Alternatives*

Document No.: 8.05 042 02/28/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *News Release*

Document No.: 8.05 043 10/25/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *News Release*

Document No.: 8.05 044 10/02/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *News Release*

Document No.: 8.05 045 09/01/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / USEPA
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Title: *The Superfund Process*

Document No.: 8.05 046 07/24/90 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *Fact Sheet*

Document No.: 8.05 047 07/11/90 **Pages:** 4 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *News Release*

Document No.: 8.05 048 04/09/90 **Pages:** 3 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *News Release*

Document No.: 8.05 049 12/01/89 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *Fact Sheet*

Document No.: 8.05 050 09/29/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *Cost Summary*

Document No.: 8.05 051 03/02/89 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / Panhandle Health District
To / Orgnztn: N/A / N/A
Title: *Notice of opening of public comment on the Proposed Action*

Document No.: 8.05 052 09/01/88 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Fact Sheet*

Document No.: 8.05 053 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Project Update*

Document No.: 8.05 054 02/26/88 **Pages:** 12 **Confidential?** N
From/Orgnztn: Chuck Moss / IDHW
To / Orgnztn: Duane Little / Task Force Member
Title: *Letter: Overview of the expenditures and revenue sources*

Document No.: 8.05 055 12/01/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Progress Update*

Document No.: 8.05 056 08/11/87 **Pages:** 15 **Confidential?** N
From/Orgnztn: Bryan Johnson / IDHW
To / Orgnztn: Interested Parties / N/A
Title: *Letter: RI/FS Studies*

Document No.: 8.05 057 06/01/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Project Update*

Document No.: 8.05 058 05/01/87 **Pages:** 1 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Status Report*

Document No.: 8.05 059 03/01/87 **Pages:** 5 **Confidential?** N
From/Orgnztn: N/A / N/A
To / Orgnztn: N/A / N/A
Title: *Project Update*

Document No.: 8.05 061 11/11/11 **Pages:** 4 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *Superfund Glossary*

Document No.: 8.05 062 11/11/11 **Pages:** 1 **Confidential?** N
From/Orgnztn: Superfund Project Team / IDHW
To / Orgnztn: N/A / Task Force Members, etc.
Title: *Project Team thanks Task Force Members etc.*

Document No.: 8.05 063 07/12/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / USEPA
To / Orgnztn: N/A / N/A
Title: *EPA News Release Re: nine PRPs agreeing to conduct removal and replacement of surface soils*

Document No.: 8.07 001 05/23/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: N/A / PRP's
To / Orgnztn: N/A / N/A
Title: *Statement of the PRP's on the Proposed Clean-up of the Residential Soils at BH SF Site.*

Document No.: 8.07 002 06/30/91 **Pages:** 999 **Confidential?** N
From/Orgnztn: ASARCO Inc., Gulf Inc, and Hecla Co. / N/A
To / Orgnztn: N/A / N/A
Title: *Comments on EPA's Proposed Plan for Cleanup of Residential Soil within the Populated Areas of the Bunker Hill Superfund Site.*

Document No.: 8.07 003 05/16/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Keith Dahlberg / Public
To / Orgnztn: Sally Martyn / USEPA
Title: *Public Comment on Proposed Plan*

Document No.: 8.07 004 05/13/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Mrs. Robert S. Bencich / Resident
To / Orgnztn: Sally Martyn / USEPA
Title: *Public Comment on Proposed Plan*

Document No.: 8.07 005 06/13/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Charles Peterson / Mayor Wardner
To / Orgnztn: N/A / USEPA
Title: *Comment on Proposed Plan*

Document No.: 8.07 006 06/21/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Jacqueline C. Fields / Public
To / Orgnztn: N/A / N/A
Title: *Comment on Proposed Plan*

Document No.: 8.07 007 05/25/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Carol Young / Public
To / Orgnztn: Sally Martyn / USEPA
Title: *Comment on Proposed Plan*

Document No.: 8.07 008 06/24/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Ernest L. Stensgar / Coeur d'Alene Tribal Council
To / Orgnztn: John Meyer / USEPA
Title: *Public Comment on Proposed Plan*

Document No.: 8.07 009 06/27/91 **Pages:** 1 **Confidential?** N
From/Orgnztn: Douglas Pottratz / Washington Water Power
To / Orgnztn: Jerry Cobb / Panhandle Health District
Title: *Comments on An Evaluation of Institutional Controls*

Document No.: 8.07 010 07/01/91 **Pages:** 2 **Confidential?** N
From/Orgnztn: David Weinberg / Wienberg, Bergson, & Neuman
To / Orgnztn: Sally Martyn / USEPA
Title: *Comments on Proposed Plan for Clean up of Res. Soils within the Populated Areas of the BH SF Site*

Document No.: 8.07 011 08/12/91 **Pages:** 3 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Rob Hanson / IDHW
Title: *Memo: Responsiveness Summary Information*

Document No.: 8.07 012 07/29/91 **Pages:** 16 **Confidential?** N
From/Orgnztn: Jerry Cobb / Panhandle Health District
To / Orgnztn: Sally Martyn, Rob Hanson / USEPA, IDHW
Title: *FAX Re: response to PRPs, Comments on EPAs proposed plan for the cleanup of Res. soils*

Document No.: 8.07 013 05/23/91 **Pages:** 84 **Confidential?** N
From/Orgnztn: Nancy A. Puetz / State of Idaho
To / Orgnztn: N/A / N/A
Title: *Public Hearing on the Proposed Plan for Cleanup of the Residential Soil within Populated Areas of the BH SF Site*

Total Documents In Group: 433