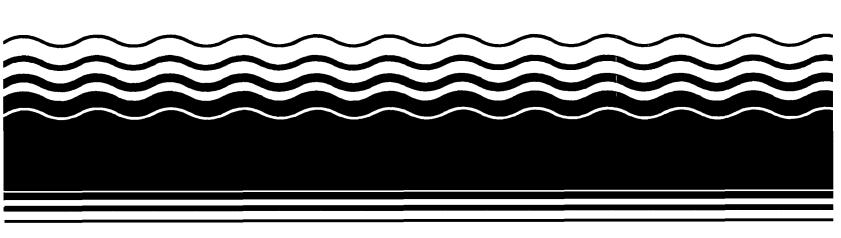
PB97-964612 EPA/541/R-97/200 April 1998

EPA Superfund Record of Decision:

Boomsnub/Airco Site-Wide Ground Water OU Vancouver, WA 9/29/1997



RECORD OF DECISION

FOR

INTERIM REMEDIAL ACTION BOOMSNUB/AIRCO SUPERFUND SITE VANCOUVER, WASHINGTON

SEPTEMBER 1997

RECORD OF DECISION FOR INTERIM REMEDIAL ACTION SITE-WIDE GROUND-WATER OPERABLE UNIT

Boomsnub/Airco Superfund Site Vancouver, Washington

THE DECLARATION

Site Name and Location
Boomsnub/Airco Superfund Site
Site-Wide Ground-Water Operable Unit
Vancouver, Washington

Statement of Basis and Purpose

This decision document presents the selected interim remedial action for the Boomsnub/Airco Superfund Site (the Site), located north of Vancouver in Hazel Dell, Washington. This remedy was developed in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC §9601 et seq. (CERCLA), as amended by Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. This decision is based on the Administrative Record for this Site.

The State of Washington concurs with the selected remedy.

Assessment of the Site

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

Description of the Selected Remedy

This interim action ROD addresses only the Site-Wide Ground-Water Operable Unit (OU) and the ground-water contamination at the Site. A final ROD is planned for the Site to fully address the threats posed by conditions at this OU.

The selected remedy is to continue operation and maintenance of the existing ground-water

for Clark County. The remedy includes the following actions:

- operation and maintenance (O & M) of the existing extraction/treatment system;
- installation of additional monitoring wells near the leading edge of the plume to determine the need for more extraction wells, and connection of additional wells to the extraction network, if necessary;
- upgrading some extraction wells and vaults as necessary to prevent infiltration of water during storm events, and
- acquisition or construction of office and storage space for the extraction/treatment and telemetry systems, new and used resin, as well as for tools, parts and equipment needed for O & M of the system.

Statutory Determination

This interim action is protective of human health and the environment, attains federal and state requirements that are legally applicable or relevant and appropriate for this interim action, and is cost effective. Although this interim action is not intended to address fully the statutory mandate for permanence and treatment to the maximum extent practicable, it does include treatment and thus is in furtherance of that statutory mandate. Because this action does not constitute the final remedy for the Site-Wide Ground-Water OU, the statutory preference for remedies that employ treatment to reduce toxicity, mobility, or volume of waste as a principal element will be addressed fully by the final response action.

Since this interim remedy will result in hazardous substances above health-based levels remaining on-site, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment. In addition, because this is an interim action ROD, review of this Site and this remedy will be ongoing as EPA continues to develop final remedial alternatives for this OU.

Chuck Clarke

Date

Regional Administrator
United States Environmental Protection Agency
Region 10

RECORD OF DECISION

FOR

INTERIM REMEDIAL ACTION SITE-WIDE GROUND-WATER OPERABLE UNIT BOOMSNUB/AIRCO SUPERFUND SITE VANCOUVER, WASHINGTON

DECISION SUMMARY

SEPTEMBER 1997

RECORD OF DECISION BOOMSNUB/AIRCO SUPERFUND SITE VANCOUVER, WASHINGTON

DECISION SUMMARY

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ABBREVIATIONS AND ACRONYMS

ARAR applicable or relevant and appropriate requirement

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

CFR Code of Federal Regulations

CPU Clark Public Utilities
CWA Clean Water Act

EPA U.S. Environmental Protection Agency

gpm gallons per minute

NCP National Oil and Hazardous Substances Pollution Contingency Plan

NPDES National Pollutant Discharge Elimination System

NPL National Priorities List

OU Operable Unit ppb parts per billion ppm parts per million

RCRA Resource Conservation and Recovery Act

RCW Revised Code of Washington RAO remedial action objective

RI/FS Remedial investigation/feasibility study

ROD Record of Decision

SARA Superfund Amendments and Reauthorization Act

WAC Washington Administrative Code

RECORD OF DECISION BOOMSNUB/AIRCO SUPERFUND SITE VANCOUVER, WASHINGTON

DECISION SUMMARY

1.0 SITE NAME, LOCATION, AND DESCRIPTION

1.1 Site Name and Location

The Boomsnub/Airco Site (the Site) is located north of Vancouver in Hazel Dell, Washington (see Figure 1). The Site is approximately two miles east of Interstate 5 and one mile west of Interstate 205, near NE 78th Street and NE 47th Avenue. The Site is bordered by a mixture of residential, commercial, and light industrial properties.

1.2 Site Description

The Boomsnub property is approximately 0.75 acres and is located at 7608 NE 47th Avenue (see Figure 2). The property is vacant except for a machine shop building unrelated to Site activities and the ground-water treatment system. The Boomsnub Corporation and its predecessor company, Pioneer Plating, conducted chrome plating operations at this location from 1967 until 1994, when Boomsnub moved its business to its current location at 3611 NE 68th Street.

The BOC Gases facility (formerly known as Airco) is an 11-acre, active gas production facility. It is located across the street (47th) from the Boomsnub property at 4758 NE 78th Street. The company manufactures and distributes compressed and liquefied gas products including nitrogen, oxygen, and argon. The company also stores and distributes other gases such as hydrogen, acetylene, and helium. The BOC Gases plant has been in operation since 1964.

The Site also encompasses a plume of ground-water contamination that emanates from beneath the two facilities and extends in a west/northwest direction to approximately NE 30th Avenue.

There are no known flood plains, endangered species, historical landmarks, or structures with historical significance identified at the Site. Designated wetlands have been identified along the south side of NE 78th Street just west of St. Johns Road, in the vicinity of extraction well MW-19D.

2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES

2.1 Boomsnub Corporation

The Boomsnub Corporation has been in business since 1952. Pacific Northwest Plating, formerly known as Pioneer Plating Company, is a division of the Boomsnub Corporation. Pacific Northwest Plating operated an industrial hard chrome facility on the Boomsnub property

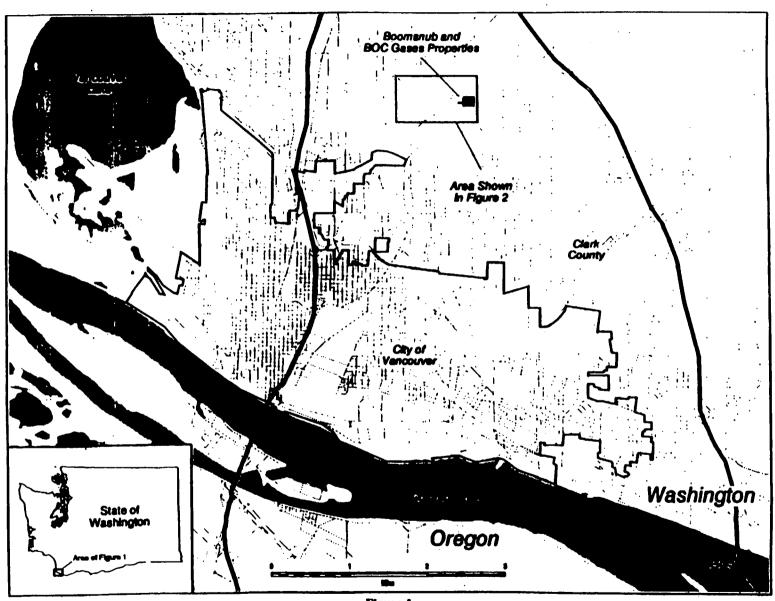
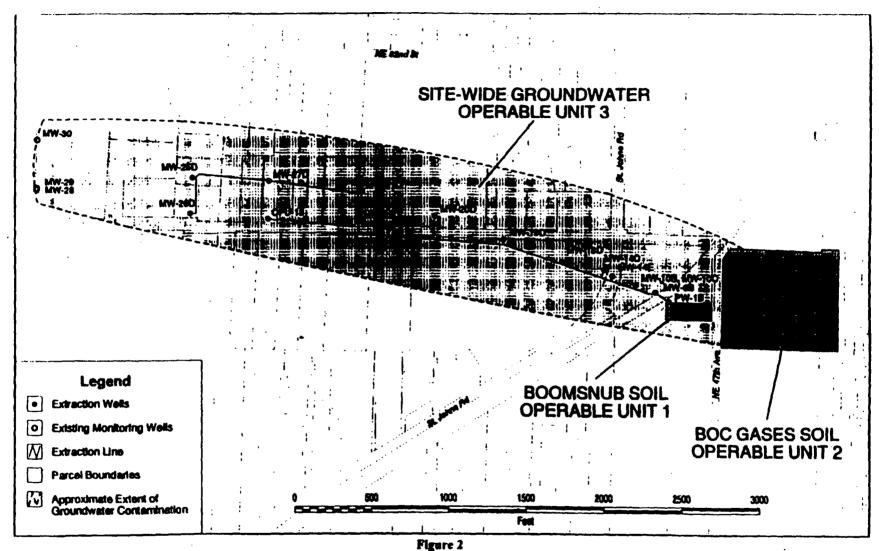


Figure 1
Site Location
Boomsnub/Airco Superfund Site



Operable Units
Boomsnub/Airco Superfund Site
(Note: only selected monitoring wells are shown.)

from 1978 to 1994. Prior to 1978, the Pioneer Plating Company operated on the Site between 1967 and 1978. The electroplating process used by Boomsnub involved the use of a chromic acid solution containing hexavalent chromium.

2.1.1 State Enforcement Actions

In 1982, the Washington State Department of Ecology (Ecology) issued an Administrative Order to the Boomsnub Corporation. The Order required the corporation to line the vault underneath the plating tanks with an acid-proof coating to eliminate leaks and protect the concrete from corrosion. In response, the corporation installed a steel plate liner in the vault beneath the tanks.

In 1987, Ecology required the Boomsnub Corporation to install monitoring wells to detect the presence of chromium in the ground water that might have resulted from leaks, spills, and other practices over the years. Sampling results indicated levels of chromium in the soils and ground water at the facility in the thousands of parts per billion (ppb) range. In March 1990, Boomsnub reported to Ecology a significant (four orders of magnitude) increase in hexavalent chromium levels in one monitoring well at the Site. The company also stated that a break in its drinking water main released approximately 300,000 gallons of water to soil beneath the facility, which may have contributed to this increase. In May 1990, Ecology issued an enforcement order, pursuant to the Model Toxics Control Act (RCW 70.105D), to the Boomsnub Corporation. The Order required the company to extract and treat contaminated ground water, monitor existing onsite wells, and conduct ground-water studies. Boomsnub installed pumping wells and began the extraction and treatment of ground water.

By August 1990, Boomsnub announced that it did not have the financial resources to meet the requirements of the Ecology order. Ecology assumed financial responsibility for operating the extraction/treatment system, expanding and upgrading the system installed by Boomsnub, and for ground-water monitoring. These activities included upgrading the treatment system from reverse osmosis to ion exchange, and expanding the extraction network and treatment system to handle increased volumes of water. Ecology also constructed a pressure sewer line to the City of Vancouver's sanitary sewer system for the discharge of treated ground water. The Boomsnub Corporation provided some in-kind services, such as the treatment plant operator; however, Ecology paid for the majority of the Site work.

In 1993, Ecology requested that EPA list the Site on the National Priorities List (NPL) since Ecology did not have the financial resources to continue the cleanup at the Site. EPA proposed the Site for inclusion on the NPL on January 18, 1994. The Site was listed on the NPL on April 25, 1995 (60 Fed. Reg. 20330).

2.1.2 United States Criminal Proceedings

EPA conducted initial sampling of the Boomsnub property in conjunction with a criminal search warrant in April 1994. This sampling indicated that extremely high levels of chromium were

present at the facility and in the soil on the property. In 1995, a federal grand jury issued a criminal indictment against the Boomsnub Corporation and three of its principal officers for illegal disposal and storage of hazardous waste. In late 1995, the U. S. Attorney entered into a plea agreement with the Boomsnub Corporation in which the company pleaded guilty to knowingly storing and disposing of hazardous waste without a Resource Conservation and Recovery Act (RCRA) permit, and knowingly violating the Clean Water Act by discharging waste water to the City of Vancouver sanitary sewer system without prior authorization. Two officers of the company pleaded guilty to one count each. The Company was sentenced to five years probation and payment of restitution in the amount of \$150,000, to be paid in equal amounts to EPA and Ecology. One officer of the company was sentenced to five years probation, home confinement, and payment of restitution in the amount of \$60,000, in equal amounts of \$30,000 each to EPA and Ecology. The second officer received one year probation, and a fine of \$1,000. Charges were not pursued against a third officer of the company due to his illness.

The criminal settlement is independent of the action EPA is currently taking against the Boomsnub Corporation and its officers to recover the Superfund money spent to investigate and clean up the chromium contamination at the Site.

2.1.3 EPA Administrative Orders

In May 1994, EPA issued a Unilateral Administrative Order (UAO) to the Boomsnub Corporation and two officers of the company requiring the corporation to cease operations and provide EPA with access to perform response actions. The UAO was temporarily extended for a short period during which the company attempted to abate the continuing release of chromium and to document that there were no continuing releases. This action was undertaken while the company was in the process of moving its operations to a new location.

2.1.4 EPA Removal Activities

In June 1994, EPA's Removal Program took over lead-agency activities at the Site. The Boomsnub Corporation ceased operations at the Site shortly thereafter. They reopened several months later at their current location at 3611 SE 68th Street.

EPA began a removal operation that included the off-site disposal of more than 400 drums of waste, demolition and removal of buildings and plating tanks, and removal and off-site disposal of more than 6,000 tons of chromium-contaminated soil. The removal action also included converting two monitoring wells (at the leading edge of the ground-water contaminant plume) to extraction wells and connecting them to the extraction network, increasing the pumping rate to 100 gallons per minute (gpm), and upgrading the ion exchange system to improve treatment efficiency and to handle the increased extraction rate. EPA's Remedial Program took over operation of the extraction/treatment system in January 1995, but has continued to rely on removal funding to support the ongoing O & M effort.

2.2 BOC Gases Facility

In 1991, during the course of the cleanup at Boomsnub, Ecology discovered volatile organic compounds (VOCs) in the ground water. The VOCs detected included trichloroethene (TCE), perchloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), and trichlorofluoromethane (Freon-11). Based on the concentrations and types of chemicals found in ground water, Ecology suspected BOC Gases as the source of the contamination. In August 1991, Ecology sent a letter to BOC Gases requesting the company to conduct an investigation. In response to this request, BOC Gases voluntarily conducted a two-phase investigation in 1992 that included subsurface soil borings and installation of monitoring wells along the perimeter of the property. Groundwater sampling results showed the presence of a variety of VOCs at various wells on the property.

2.2.1 State Enforcement Actions

In March 1993, BOC and Ecology signed an Agreed Order under MTCA requiring BOC Gases to install additional ground-water monitoring wells, sample ground water, investigate potential sources of the VOC contamination, and sample sediment and water in two on-site dry wells. Results of this investigation showed extremely high levels of TCE and Freon-11 in the sediment of the south dry well.

In December 1993, Ecology issued an Enforcement Order requiring BOC Gases to install several off-site monitoring wells, further investigate potential sources of the VOC contamination on the BOC Gases property, and remove contaminated sediment from the south dry well. The Order also required BOC Gases to assume responsibility for operating the VOC removal portion (air stripper and carbon adsorption) of the extraction/treatment system. BOC complied with these requirements.

2.2.2 EPA Enforcement Actions

EPA and BOC Gases signed an Administrative Order on Consent (AOC) in January 1997 requiring BOC Gases to conduct a site evaluation at its facility. The purpose of the site evaluation is to determine if a source (or sources) of VOC contamination remains in soil at the Site that warrants a removal action. This investigation is ongoing.

3.0 HIGHLIGHTS OF COMMUNITY PARTICIPATION

This section summarizes the community relations activities performed by Ecology and EPA both prior to and after listing of the Site on the NPL.

3.1 Ecology Community Relations Activities

Ecology prepared a community relations plan in 1990. Under this plan, Ecology published

several fact sheets in 1990 through 1994 that summarized project activities and investigation results. These fact sheets were mailed to approximately 250 interested individuals and companies. Ecology also provided the public with opportunities to comment on Orders issued to both Boomsnub and BOC Gases and held periodic meetings with interested citizens and local officials to provide updates on Site activities.

Ecology also awarded a public participation grant to the Clark County Citizens Hazardous Waste Task Force. The Task Force conducted informational meetings on hazardous waste activities in Clark County that included updates on Site activities.

3.2 EPA Community Relations Activities

EPA prepared an initial community relations plan in 1994 for the removal activities. Several fact sheets were distributed and information meetings were held during the removal action to keep interested citizens apprised of site cleanup activities. A press release on the listing of the Site on the National Priorities List was sent to the news media, including the local newspaper, and a mailing list was compiled using the Ecology data base. The Fort Vancouver Regional Library was established as a local information repository where technical documents and reports were housed for public review. EPA created an Administrative Record file for the removal action and placed this file in the local library as well.

Currently, the mailing list consists of approximately 238 interested citizens, companies, public officials and news media. Periodic fact sheets are distributed to keep the public informed of Site activities. When requested, EPA has provided briefings on Site activities for the Clark County Citizens Hazardous Waste Task Force, and other community groups. Technical documents on current Site investigation plans have been placed in the repository and sent to local officials and interested citizens to provide an opportunity for comment on Site activities. The Community Relations Plan was updated in May 1997 to reflect upcoming investigations and other site activities.

In July 1997, the Proposed Plan for the Interim Action on the Ground-Water OU was published and a fact sheet distributed to the mailing list. An Administrative Record file for the proposed Interim Action was placed in the library in July 1997. A thirty-day public comment period began July 30, 1997 and ended August 29, 1997. EPA published a public notice of the comment period in the local newspaper. Since the interim action is primarily an administrative procedure to secure long-term funding, EPA did not automatically hold a public meeting, but notified the public that one would be held if there was sufficient public interest. Since no calls were received requesting a public meeting, none was held. EPA received one comment on the proposed plan that supported EPA's preferred alternative.

This decision document presents the selected interim remedial action for the Site-Wide Ground-Water OU, chosen in accordance with CERCLA, as amended by SARA, and, to the extent practicable, the NCP. This decision is based on the Administrative Record for the Site.

4.0 SCOPE AND ROLE OF OPERABLE UNIT

For purposes of managing Site activities, EPA has divided the Site into three projects or Operable Units (OUs):

- 1. The Boomsnub Soil OU
- 2. The BOC Gases Soil OU
- 3. The Site-Wide Ground-Water OU

Figure 2 and Table 1 provide further information on the location and description of these OUs.

Table 1 Boomsnub/Airco Gases Superfund Site Operable Unit Description

OU1- Boomsnub Soil

Includes the Boomsnub property and investigation of the remaining chromium contamination in the soil on the property. Results of the soil investigation will be included in the site-wide remedial investigation/feasibility study (RI/FS).

OU2 - BOC Gases Soil

Includes the investigation of the extent of VOC contamination on BOC Gases Property and installation of ground-water monitoring wells in the Alluvial and Upper Troutdale Aquifers. EPA and BOC Gases have signed an Administrative Order on Consent for the implementation of this work. Results of this work will be summarized in the site-wide RI/FS.

OU3 - Site-Wide Ground-Water

Includes the contaminated ground water beneath both properties and the contamination extending approximately 4,000 feet west/northwest of the properties. Site activities include the operation and maintenance of the existing ground-water extraction/treatment system and enhancements to the system. One RI/FS for both the Boomsnub Soil and Site-Wide Ground-Water OUs will be prepared. A Risk Assessment will be included in this effort.

This interim ROD for the Site-Wide Ground-Water OU is limited in scope and addresses only actions necessary to contain and remove contaminated ground water through the continued operation of the extraction/treatment system. Other activities associated with operation of the extraction/treatment system, such as installation of additional monitoring wells and

improvements to the system, have also been incorporated in this ROD. These interim actions will be consistent with any future actions and will be reviewed and incorporated, to the extent practical, into the final ROD for this OU.

5.0 SUMMARY OF SITE CHARACTERISTICS

5.1 Geology/Hydrogeology

There are two principal hydrogeologic units of concern in the general area of the Site. These are the Pleistocene Alluvial deposits and the Upper Troutdale formation. The Pleistocene Alluvial deposits are the near surface material and overlie the Upper Troutdale formation. The Alluvial deposits consist of an unsaturated zone, an upper permeable aguifer (in which the chromium and VOC contamination extends down gradient approximately 4000 feet) and a lower, lowpermeability silty/clayey aguitard. This aguitard separates the Alluvial aguifer from the Upper Troutdale, which is the source of drinking water for approximately 65,000 residents in Clark County. The aguitard varies from approximately 5 to 20 feet in thickness, and there are known breaches in the aquitard in the vicinity of the Site. There are several private wells in the Alluvial aquifer in the general area of the Site. Some of these wells are still used for drinking water. Those residents whose wells have been affected by the ground-water contamination in the Alluvial aquifer or are within the path of the ground-water contaminant plume have been connected to an alternate water supply provided by Clark Public Utilities (CPU). CPU is the local water purveyor for the residents in this area of Clark County. CPU also has several water supply wells in the Upper Troutdale. The closest of these wells is within 2000 feet of the contamination in the Alluvial aquifer.

The ground-water flow direction in the Upper Alluvial aquifer is in a west/northwest direction. The ground-water flow direction in Upper Troutdale may be in a west/southwest direction. This flow direction, however, is in question because it is based on wells of unknown construction: EPA plans to install additional wells in the Upper Troutdale as part of the Boomsnub Soil and Site-Wide Ground-Water RI/FS to confirm the actual flow direction.

5.2 Nature and Extent of Contamination

Several Site studies have been completed since 1987 on behalf of Ecology, EPA, and BOC Gases that provide a partial picture of the extent of contamination at the Site. These studies are summarized below and are included in the Administrative Record for the Site. A complete characterization of the Site, including studies completed by BOC Gases, will be contained in the Site-Wide Ground-Water and Boomsnub Soil RI/FS, scheduled for completion in 1999.

5.2.1 Boomsnub Facility

In 1986, Ecology conducted a site inspection at Boomsnub. Shallow soil samples showed chromium concentrations ranging from 163 to 3,140 parts per million (ppm) chromium. Lead

concentrations ranged from 119 to 2,985 ppm. In 1989, ground-water samples collected from wells on the Boomsnub property showed chromium concentrations ranging from 1,300 to 5,800 ppb.

Ground-water samples collected from 1990 through 1994 at on and off-property monitoring wells in the Alluvial aquifer showed that the highest chromium concentrations ranged from 2,400,000 ppb (at MW-11 on the Boomsnub property, now removed) to 89,000 ppb at MW-19D (located in the field west of St. Johns Road). Sampling results from private wells and CPU monitoring wells during this period showed no chromium in the Upper Troutdale. Low concentrations of TCE were found in one private well and one CPU well, as discussed further below.

In 1994, sampling conducted as part of the EPA removal at the Boomsnub property showed chromium concentrations greater than 9,000 ppm in subsurface soil. While the bulk of this contaminated soil was removed from the property, post-removal sampling indicated that some chromium-contaminated soil remains on the property. Additional sampling will be conducted during the RI/FS to determine whether the volume and areas of remaining contamination warrant further cleanup.

5.2.2 BOC Gases Facility

In response to the discovery of VOCs in ground water in 1991, BOC Gases conducted several limited on-site investigations from 1992 to 1994. Results of the investigations showed low levels of VOCs in a few samples from on-site soils. The highest concentrations of VOCs were found in a sediment sample from the south dry well. The south dry well sample contained TCE at 250,000 ppb, Freon-11 at 800,000 ppb and TCA at 9,900 ppb. Ground-water samples from wells in the Alluvial aquifer showed a variety of VOCs including TCE at concentrations up to 9,200 ppb, 1,1,1-TCA at 390 ppb, PCE at 110 ppb, and Freon-11 at 220 ppb. In addition, sampling results from one private well and one CPU monitoring well in the Upper Troutdale aquifer showed low levels of TCE; however, the construction of the private well is unknown, and the CPU well was not constructed according to state regulations. Therefore, it is unclear whether the TCE has penetrated the aquitard at just these locations due to the well construction, or whether it has migrated down to the Upper Troutdale through another breach in the aquitard in the area. Additional wells and sampling, as discussed further below, will be conducted during the Site-Wide Ground-Water RI/FS to determine the source and pathway of the TCE.

BOC Gases is currently conducting a Site Evaluation on its property to determine if a source (or sources) of the VOC contamination remains in the soil that warrants cleanup. The results of the Site Evaluation will be available in early 1998.

5.3 Current Extraction/Treatment Operations and Site Monitoring

Through its contractor, ICF Kaiser, EPA continues to operate and maintain the ground-water

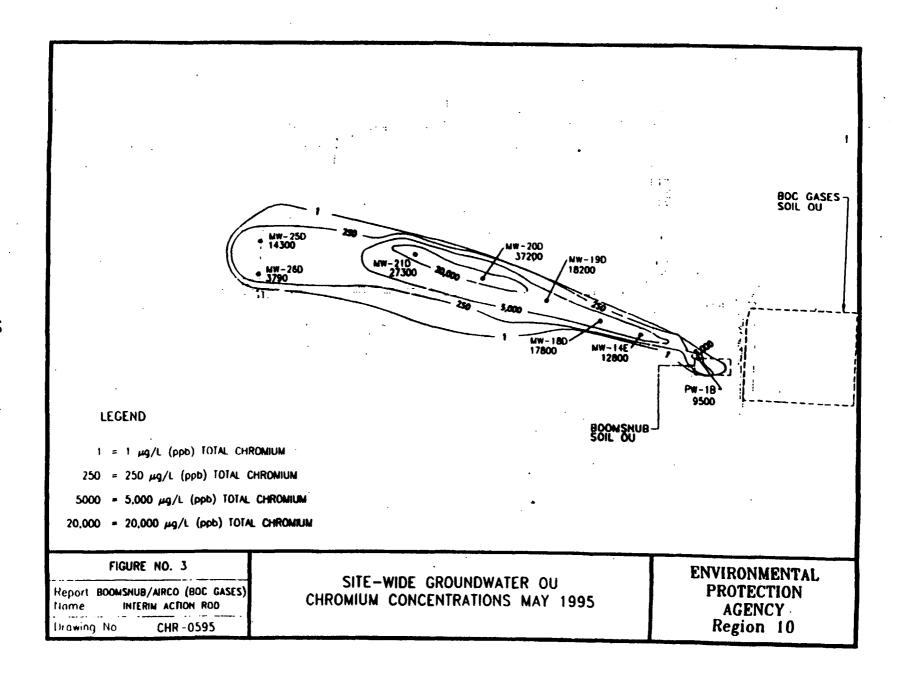
extraction network consisting of fifteen extraction wells. The extraction system is containing most of the chromium and VOC contamination in the ground water, except for an unknown amount at the farthest down gradient (western) edge that has moved beyond the capture zone of the outermost extraction wells. Currently, EPA is extracting water from nine of the fifteen extraction wells in order to optimize the efficient removal of contamination. EPA also operates and maintains the ion exchange system that removes the chromium from the ground water. BOC Gases operates the air stripping portion of the treatment system, which removes the VOCs from the ground water. After the water is treated, it is then discharged to the sanitary sewer, where it is further treated at the City of Vancouver waste water treatment plant.

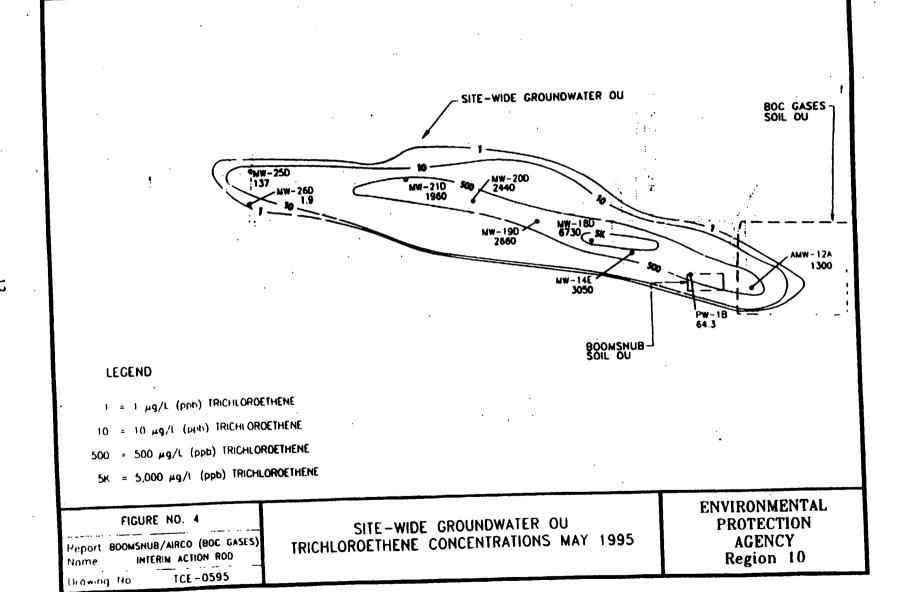
EPA samples the operating ground-water extraction wells on a monthly basis. EPA also samples the influent and effluent from the treatment plant for compliance with its permit limits for discharge to the sanitary sewer. Twice a year, in the spring and fall, EPA samples selected wells in the ground-water monitoring network. The purpose of this twice-yearly monitoring is to determine the effectiveness of the cleanup in removing ground-water contamination and to assist EPA in deciding whether changes need to be made in operation of the system.

Figures 3 and 4 show the concentrations of chromium and TCE in the ground water when EPA conducted its first major sampling event in April/May of 1995. Figures 5 and 6 show the chromium and TCE concentrations in ground water from the most recent (May 1997) sampling event. These figures show the reduction in the highest chromium concentrations along the centerline of the plume. Figure 7 further illustrates the generally downward trend (with the exception of (MW-14E) in chromium concentrations along the center line of the plume. Figure 8 shows the trends in the TCE data. These data show that some wells, in particular AMW-12A and MW-14E, have increasing TCE concentrations over the last two years.

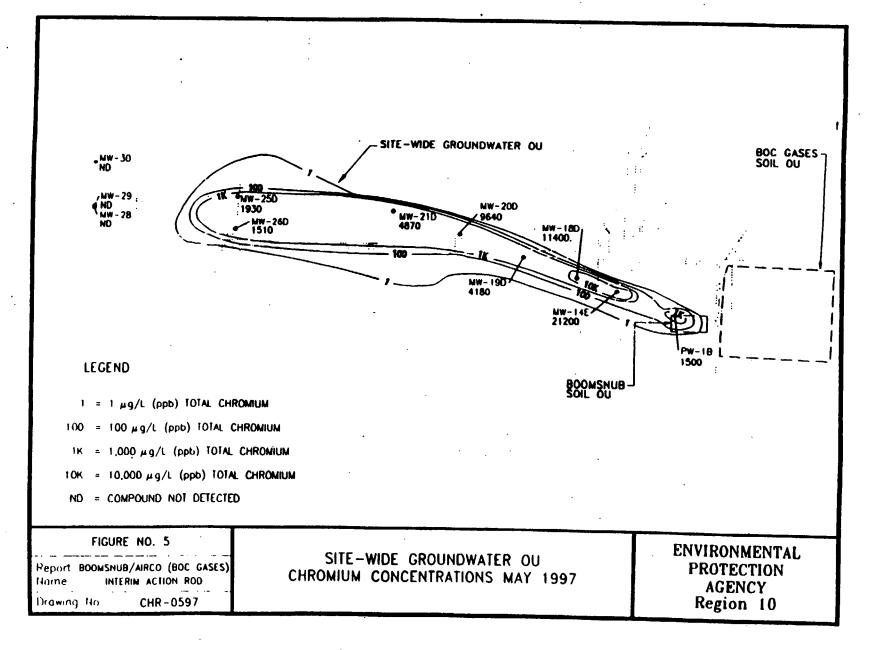
EPA has determined through its monitoring program that, although the majority of the contamination is being controlled and significant volumes of contaminated water have been extracted and treated, it could take an additional ten to fifteen years to reduce chromium to below the federal drinking water standard (100 parts per billion) at the current pumping rate of approximately 100 gallons per minute (gpm). A similar calculation has not yet been made for removal of the VOCs; however, EPA expects that removal of the VOC contamination will take at least this long at current rates.

In 1996, EPA installed additional temporary and permanent monitoring wells near the leading edge of the plume and along NE 30th Street. The purpose of installing these wells was to determine if contaminated ground water had moved beyond the capture zone of the last two extraction wells. Data collected from the wells on NE 30th Avenue in October 1996 indicate that chromium and VOCs have reached these wells, but at levels below drinking water standards. In the May 1997 sampling event, chromium and VOCs were not detected. This may be the result of an unusually high water table caused by heavy rains during the winter of 1996-1997. EPA will sample these wells in October 1997, during the low water table season, to see if contaminant concentrations seen in the October 1996 sampling will be replicated. Additional monitoring









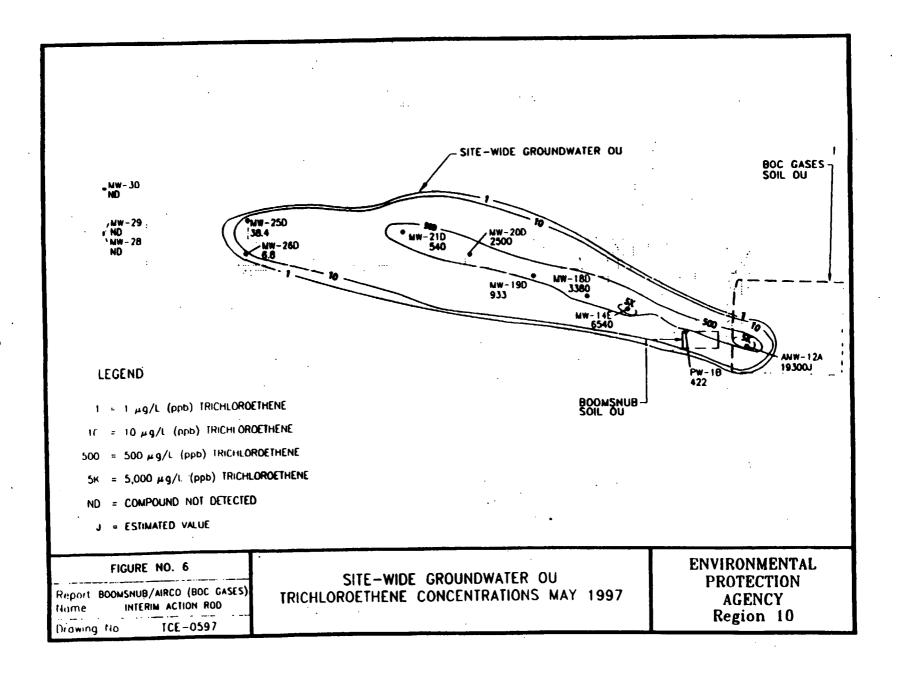


FIGURE 7
CHROMIUM CONCENTRATIONS IN SITE WELLS

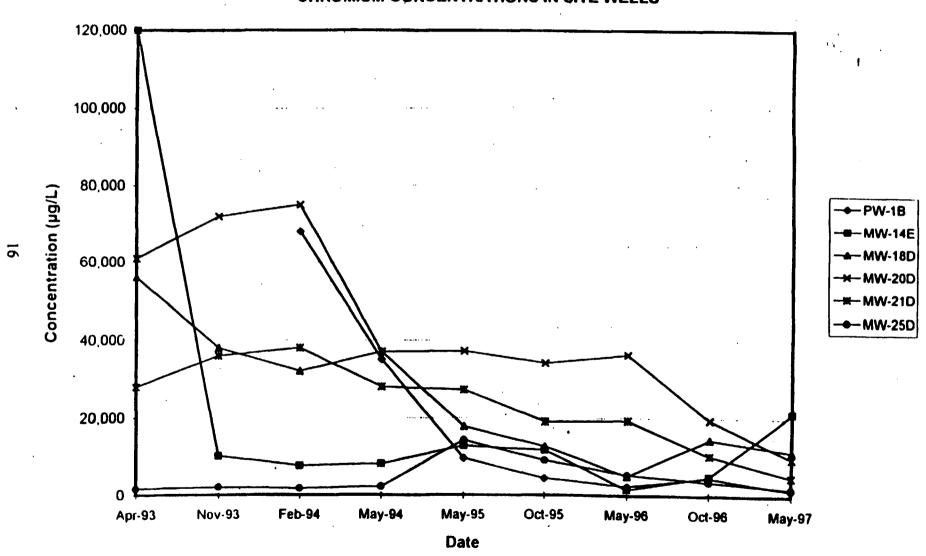
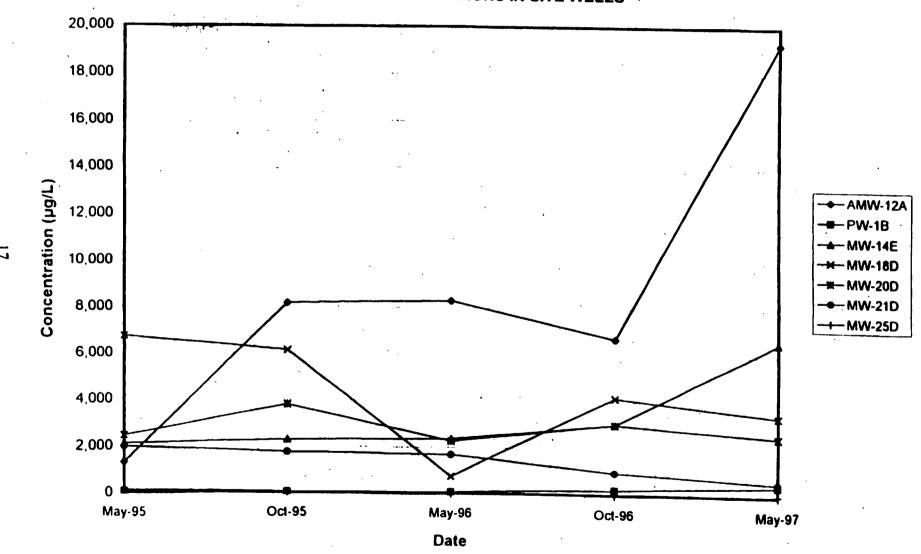


FIGURE 8
TCE CONCENTRATIONS IN SITE WELLS



wells, however, are needed between this last set of monitoring wells and extraction wells MW-25 and MW-26 to determine if this portion of the ground-water contaminant plume warrants extraction and treatment.

6.0 RISK ASSESSMENT

Since a Risk Assessment has not yet been completed for this Site, EPA is unable to characterize the combined risk from the contaminants in soil and ground water at this time. As part of the Site Evaluation at the BOC Gases Soil OU, BOC Gases will complete a streamlined risk evaluation. Data collected during the Site Evaluation will be combined with data collected during the RI for the Boomsnub Soil and Site-Wide Ground-Water OUs and used to prepare a site-wide baseline Risk Assessment.

The most recent (May 1997) monitoring data show that average concentrations of chromium and TCE are far in excess of the federal drinking water standard of 100 ppb and 5 ppb, respectively. The average chromium concentration in the untreated ground water entering the treatment plant is 4,360 ppb. The average TCE concentration is 2,020 ppb.

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

7.0 GOALS AND OBJECTIVES OF THE INTERIM ACTION

The goal of the interim action is to contain contaminated ground water in the Alluvial aquifer and prevent its spread into the Upper Troutdale aquifer, the regional water supply, which lies below the Alluvial aquifer. The nearest public water supply well for CPU, the local water purveyor in the area, is in the Upper Troutdale aquifer and is within 2,000 feet of the leading edge of the contaminant plume. CPU provides water to more than 60,000 customers. Even though the contamination to date is found in the Alluvial aquifer, which is not the regional water supply, there are known breaches in the aquitard separating the two aquifers, and TCE has been found in at least one private well and one monitoring well in the Upper Troutdale aquifer.

This action is an administrative procedure needed to secure long-term funding, called Remedial Action Funds, for site cleanur. For the past two and one half years, EPA has used funds from its Removal Program to pay for the operation and maintenance of the ground-water extraction/treatment system. Since operation of the system will continue for a number of years. EPA believes it is appropriate to secure long-term funding for operation of the system and discontinue using Removal Program funds. The interim action ROD will allow EPA to access a more appropriate source of cleanup money called Remedial Action funds. In order to obtain these funds, EPA must document the decision to continue treating ground water in an interim action ROD.

8.0 DESCRIPTION OF REMEDIAL ACTION ALTERNATIVES

This section describes alternatives only for the interim action for the Ground-Water OU at the Site. This is the only OU being addressed in this interim action.

Two alternatives were under consideration: (1) no action, and (2) operate the current ground-water extraction/treatment system and make improvements to the extraction and monitoring network to more efficiently clean up the contaminated ground water.

8.1 Alternative 1: No Action

EPA is required to consider the "no-action" alternative to compare risks and benefits of other cleanup approaches. Under this alternative, both the treatment plant and the ground-water extraction system would be abandoned, and treatment of contaminated ground water would cease. This action has no capital or operations and maintenance costs, but would have some shut down costs.

This action, however, has significant environmental costs. Abandonment of the system would result in the plume migrating unchecked with the potential to reach the Upper Troutdale aquifer, the regional water supply, and the CPU well field.

8.2 Alternative 2: Operate Existing System and Improve the Extraction/Treatment System and Plant Facilities

Under this alternative, EPA would keep the existing ground-water extraction/treatment plant in operation and make routine repairs as needed. EPA would also make improvements to the extraction and monitoring network and plant facilities. These improvements would include installing additional monitoring wells near the leading edge of the plume to determine the need for more extraction wells, and connection of the wells to the extraction network, if necessary. In addition, some extraction wells and vaults would be upgraded as necessary to prevent infiltration of water during storm events. Finally, additional space would be built or acquired for office use and for storage of new and used resin, tools, parts and equipment, the telemetry system, and other O & M items.

The approximate cost of Alternative 2 is shown below.

O & M of Existing System: \$800,000/year

Improvements to the System: \$300,000

It is expected that this interim action would operate for two to three years until implementation of the final remedial action for the Site.

9.0 COMPARATIVE ANALYSIS OF ALTERNATIVES

Each remedial alternative under consideration must be evaluated according to specific criteria. The purpose of this evaluation is to promote consistent identification of the relative advantages and disadvantages of each alternative. There are nine criteria by which feasible remedial alternatives are evaluated. Although all nine criteria are important, they are weighted differently in the decision-making process. The nine criteria are summarized in Table 2. The following is EPA's evaluation of the alternatives.

9.1 Overall Protection of Human Health and the Environment

Alternative 2 is protective of public health and the environment. Operation of the extraction/treatment system will ensure that contamination is contained. Installation of additional monitoring wells will assist EPA to determine the concentration of contaminants in the portion of the ground-water plume that has moved beyond the capture zone of the extraction system, and extract and treat this water, if necessary. Other system improvements will allow EPA to operate and maintain the extraction/treatment system with lower costs and fewer shutdowns.

The No-Action alternative is not protective. It would allow the contaminant plume to advance and potentially reach the CPU water supply wells in the Upper Troutdale aquifer.

9.2 Compliance with ARARs

Implementation of Alternative 2 is an interim action that will achieve the objective of controlling the migration of contaminated ground water in the Alluvial aquifer. The alternative proposed is an interim measure and will become part of the final cleanup action that will attain the "applicable or relevant and appropriate requirements" (ARARs). ARARs relating to the wastes generated from the operation of the ground-water extraction/treatment system apply while this interim action is implemented. These ARARs will be met during operation of this alternative. Final ARAR-compliant actions will be identified as part of the site-wide RI/FS and final Record of Decision.

The No-Action alternative does not comply with state ARARs for protection of ground water.

9.3 Long-Term Effectiveness and Permanence

Alternative 2 provides the greatest potential for minimizing risks from contaminated ground water over the long term. The ground-water extraction/treatment system will continue to operate, which will control and clean up the contaminant plume, thus protecting the Upper Troutdale aquifer. The improvements to the existing extraction and monitoring network will allow EPA to optimize the operation of the system and better understand and control the movement of ground-water contamination. Installation of additional monitoring wells will assist EPA in determining

Table 2 Evaluation Criteria

EPA uses nine criteria to evaluate and compare alternatives for a given site. With the exception of the no-action alternative, all alternatives must meet the first two "threshold" criteria. EPA uses the next five criteria as "balancing" criteria for comparing alternatives and selecting a preferred alternative. After public comment, EPA may alter its preference on the basis of the last two "modifying" criteria.

Threshold Criteria

- 1. Overall Protection of Human Health and the Environment How well does the alternative protect human health and the environment?
- 2. Compliance with Regulations Does the alternative meet all applicable or relevant and appropriate state and federal environmental laws (ARARs), or if not, is a waiver justified?

Balancing Criteria

- 3. Long-term Effectiveness and Permanence How well does the alternative protect human health and the environment after cleanup goals have been reached? What, if any, risks will remain at the site? What is the adequacy and reliability of controls?
- 4. Reduction of Toxicity, Mobility, or Volume Is the toxicity, mobility, and volume of the hazardous substance significantly reduced through treatment? What are the type and quantity of residuals?
- 5. Short-term Effectiveness Are there potential adverse effects to either the community, site workers, or the environment during construction or implementation of the alternative? How fast does the alternative reach the cleanup goal?
- 6. Implementability Is the alternative both technically and administratively feasible? Has the technology been used successfully on other similar sites?

Modifying Criteria

- 7. Cost What are the estimated present worth costs of the alternative?
- 8. State Acceptance What are the state's comments or concerns about the alternatives considered and about the preferred alternative? Does the state support or oppose the preferred alternative?
- 9. Community Acceptance What are the community's comments or concerns about the alternatives considered and about the preferred alternative? Does the community generally support or oppose the preferred alternative?

the concentration of contaminants in the portion of the ground-water plume that has moved beyond the capture of the extraction network. These wells could then be converted to extract this water, if necessary. Other improvements will allow EPA to operate and maintain the extraction/treatment system with lower costs and fewer shutdowns.

The No-Action alternative would not minimize risks from contaminated ground water. It would result in the contamination moving unchecked, potentially reaching the CPU water supply wells in the Upper Troutdale aquifer.

9.4 Reduction in Toxicity, Mobility, or Volume Through Treatment

Alternative 2 is designed to reduce the toxicity, mobility, or volume of contaminants in the ground water. It would also address the potential problems associated with the portion of the plume that has moved beyond the capture of the existing system. The No-Action alternative would not reduce the toxicity, mobility, or volume of contamination.

9.5 Short-Term Effectiveness

Alternative 2 provides the most protectiveness in the short term. Control of the ground-water contamination would continue through extraction and treatment of contaminated ground water. Installation of additional monitoring and/or extraction wells under this alternative would cause some short-term disruptions and inconvenience during construction.

The No-Action alternative falls short of achieving the goals established for this interim action (containment of ground-water contamination), causing potentially adverse effects in the short term. If no action is taken, ground-water contamination will move unchecked until a final action is taken at the Site.

9.6 Implementability

Both alternatives considered can be completed successfully with varying degrees of difficulty. Alternative 2 is more difficult to implement because, in addition to current Site activities and planned improvements, it requires negotiation with land owners for access for construction activities. The No-Action Alternative is less difficult to implement since it would result in shut down of the extraction/treatment system.

9.7 Cost

The estimated costs for the two alternatives are summarized below:

Alternative 1 No Action

No capital or O & M costs

Alternative 2 Operate and Make Improvements to the Existing System

\$300,000 capital costs and \$800,000 annual O & M costs

Alternative 2 is the more costly of the two to implement. System improvements would cost approximately \$300,000 and annual O & M costs are approximately \$800,000. O & M costs are projected only for the next two to three years until a final remedy for the Site is selected and implemented.

The No-Action alternative is the less costly alternative. This "no cost," however, ignores the larger environmental impact that would be potentially absorbed by the local community if the contamination reaches the Upper Troutdale aquifer and contaminates the well fields operated by CPU. Likewise, it does not include the loss of any private water supply wells that could be impacted by this action.

9.8 State Acceptance

The Washington State Department of Ecology evaluated the alternatives presented in the proposed plan, supported the preferred alternative identified by EPA, and concurs with the selected remedy for this interim action.

9.9 Community Acceptance

EPA received one comment on the proposed plan. This comment was in support of EPA's preferred alternative to continue extraction/treatment at the Site, and is discussed in the attached responsiveness summary.

10.0 THE SELECTED REMEDY

Based upon the evaluation of the above alternatives, EPA's selected remedy is Alternative 2. This remedy meets the threshold criteria of protecting human health and the environment and meets ARARs. It also achieves optimum compliance with the five balancing criteria: long-term effectiveness, short-term effectiveness, implementability, reduction in toxicity, mobility, or volume through treatment, and cost. It also best satisfies the modifying criteria of state and community acceptance. The selected remedy includes the following actions:

- operation and maintenance of the existing extraction/treatment system;
- installation of additional monitoring wells near the leading edge of the plume to determine the need for more extraction wells, and connection of additional wells to the extraction network, if necessary;
- upgrading some extraction wells and vaults as necessary to prevent infiltration of water during storm events, and

acquisition or construction of office and storage space for the extraction/treatment and telemetry systems, new and used resin, as well as for tools, parts and equipment needed for O & M of the system.

EPA will continue to operate and maintain the existing treatment plant pending the final remedial action at the Site. The repairs and improvements to the extraction system and plant facilities should reduce long term O & M costs and periodic shutdowns of the system. Off-site disposal of hazardous waste from this remedial action (e.g., the resin used to remove chromium from ground water) will go to a facility acceptable under EPA's Off-Site Disposal Rule.

EPA will routinely sample selected ground-water extraction and monitoring wells and conduct other studies to optimize the efficient extraction of contaminated ground water. The ongoing operation and maintenance of the extraction/treatment system will be conducted in conjunction with the RI/FS for the Boomsnub Soil and Site-Wide Ground-Water OUs, and the Site Evaluation at the BOC Gases Soil OU. Data collected during ongoing activities will be used in the development of the RI/FS and the final remedial action at the Site.

EPA believes that additional monitoring and/or extraction wells are needed to reduce the potential risk from that portion of the ground-water contamination that has migrated beyond the current capture zone of the leading edge extraction wells. At the time these wells were connected to the extraction network (December 1994), significant chromium contamination was immediately detected in them. EPA increased the pumping rate of these wells to create a hydraulic barrier and prevent the majority of the contamination from advancing. However, modeling indicates, and monitoring verifies, that an unknown quantity of contamination has moved beyond the capture of the two furthermost extraction wells and is migrating in a west/northwest direction. Additional wells are needed between EPA's monitoring wells (MW-28, MW-29, and MW-30) and the last line of extraction wells (MW-25 and MW-26, as depicted in Figure 2). The new monitoring wells will be used to determine the concentration of contamination in the portion of the plume that has moved beyond the capture of the outermost extraction wells. The data collected will assist EPA to determine whether the contaminant concentrations warrant extraction and treatment. The new monitoring wells will be sized for conversion to extraction wells, should conversion become necessary.

The cost (+50 to -30%) of the selected remedy is approximately \$300,000 in capital costs for monitoring and extraction well installation and other system improvements and \$800,000 in annual O & M costs.

11.0 STATUTORY DETERMINATIONS

11.1 Protection of Human Health and the Environment

The selected interim action protects human health and the environment. The No-Action alternative does not ensure long-term protection of human health or the environment because it does not contain the contaminated ground water. Protection of human health and the environment is obtained by containing, extracting and treating contaminated ground water.

Long-term operation and maintenance will be required for the selected remedy. The effectiveness of the interim remedy will be evaluated as part of the final RI/FS for the Site to determine if additional source control and/or ground-water treatment actions are required.

11.2 Compliance with Applicable or Relevant and Appropriate Requirements

The selected remedy will be designed and implemented to attain all action specific, chemical specific, and location specific ARARs identified in this section. Because this is an interim remedial action, ground-water cleanup standards are not being established in the ROD.

Clean Air Act, 42 U.S.C. §§ 7412, 7661(a); General Regulations for Air Pollution Sources, WAC 173-400; Emission Standards and Controls for Emitting Volatile Organic Compounds, WAC 173-490; Southwest Washington Air Pollution Control Agency Regulations I, II & III

The VOCs in the contaminated ground water are removed by an air stripper. Air stripping removes the VOCs from ground water and transfers them to the air in a gaseous state. The air is treated using carbon adsorption to remove the VOCs. BOC Gases operates and maintains this portion of the treatment system. BOC Gases obtained a permit from the Southwest Washington Air Pollution Control Agency to operate the air stripper prior to the Site being listed on the NPL. Operation of this portion of the treatment system does and will continue to comply with the substantive requirements of the WAC 173-400 as implemented by SWAPCA. Further, Washington Emission Standards and Controls for Emitting Volatile Organic Compounds (WAC Chapter 173-490) establishes standards for specific VOC source emissions. These standards establishing emission standards for the air stripping system and the granular activated carbon unit are incorporated into the permit being met at the Site.

Clean Water Act, 33 U.S.C. § 1311; 40 CFR 403.5; Water Pollution Control Act, RCW 90.48; Water Resources Act, RCW 90.54; Grant of Authority Sewerage Systems, WAC 173-208

These regulations apply to the off-site disposal of the treated ground water and technically are not an ARAR at this site. ARARs apply to those actions which occur on-site. Since this is an off-site disposal action, EPA has a permit for its discharge to the City of Vancouver's wastewater treatment system and will meet the requirements set forth in the permit. EPA will also meet the requirements of 40 CFR 403.5, that prohibit dischargers into publicly owned treatment works from introducing pollutants that pass through the facility without treatment or that interfere with the treatment works.

Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921-22; 40 CFR Part 262 Subparts A, B, C, and D; 40 CFR Part 265, Subparts I, AA, BB, and CC; Washington State Dangerous Waste Regulations, WAC 173-303-070, 173-303-170 to -200, 173-303-630.

The hazardous waste generated by the operation of the groundwater treatment system includes the chromium-contaminated resin used to remove chromium from the ground water. This waste is characterized and stored temporarily prior to off-site shipment for disposal at a permitted

facility. EPA has installed a storage area to meet the substantive requirements of these regulations for the proper on-site storage of hazardous waste prior to off-site disposal. EPA will meet the federal and state regulations requiring identification of hazardous wastes and proper handling of these wastes prior to disposal.

Executive Order 11990, Executive Order for Protection of Wetlands

This Executive Order requires EPA to avoid long- and short-term adverse impacts associated with the destruction or modification of wetlands and avoid direct or indirect support of new construction in wetlands whenever there is a practicable alternative.

Some of the extraction system's wells and vaults are either within or adjacent to designated wetlands. This interim action includes the continued operation of these wells and modification to some extraction wells and vaults to prevent infiltration of water during storm events. Operation of and improvements to the extraction system are necessary to maintain control of and clean up the ground-water contamination at the Site. While there is no practical alternative to these actions, care will be taken to minimize damage to these wetlands during construction activities.

Solid Waste Management-Reduction & Recycling Act, RCW 70.95; Minimum Functional Standards for Solid Waste Handling, WAC 173-304.

These requirements apply to the disposal of non-hazardous waste. All non-hazardous waste generated will be disposed off-site in accordance with these regulations. Since disposal occurs off-site, this law and regulations technically are not ARARs. Operation of the extraction/treatment system will comply with these regulations.

Pollution Disclosure Act of 1971, RCW 90.52.040.

This law requires that wastes are to be provided with all known, available, and reasonable methods of treatment prior to their discharge or entry into waters of the state, and apply to the disposal of the treated ground water generated by the extraction/treatment system.

The contaminated ground water will be treated, using ion exchange and air stripping, prior to discharge to the City of Vancouver sanitary sewer. This treatment of ground water prior to discharge will comply with the requirements of this Act.

Water Well Construction Act, RCW 18.104; Minimum Standards for Construction and Maintenance of Wells, WAC 173-160-500 to -560

These regulations are applicable to the construction of additional monitoring and extraction wells at the Site. The construction of new monitoring and extraction wells will meet the standards set for proper construction of resource protection wells.

11.3 Utilization of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Practical

Extracting and treating ground water to remove contaminants is a permanent solution. Overall, the interim actions selected represent the best balance of alternatives with respect to the selection criteria, given the limited scope of the action.

11.4 Cost Effectiveness

The continued operation of the ground-water extraction/treatment system provides overall effectiveness proportionate to its costs, such that it represents a reasonable value for the money to be spent.

11.5 Preference for Treatment as a Principal Element

The objective of the selected interim remedy includes containing the migration of the contamination. It is achieved through extraction and treatment of contaminated ground water. The selected remedy meets the statutory preference for using treatment as a principal element.

12.0 DOCUMENTATION OF SIGNIFICANT CHANGES

The selected remedy does not contain any significant changes from the preferred alternative originally presented in the Proposed Plan.

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APPENDIX A RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY

Introduction

The purpose of this responsiveness summary is to summarize and respond to public comments submitted on the Proposed Plan for Interim Action at the Boomsnub/Airco Superfund Site. In the Proposed Plan, issued July 28, 1997, the U.S. Environmental Protection Agency (EPA) described alternatives considered for the cleanup of the ground water at the Site. These alternatives were based on information in the Administrative Record. The public comment period for the Proposed Plan was held from July 30, 1997 to August 29, 1997. This responsiveness summary meets the requirements of Section 117 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

Since the interim action is primarily an administrative procedure to secure long-term funding, EPA did not automatically hold a public meeting, but notified the public that one would be held if there was sufficient public interest. Since no calls were received requesting a public meeting, none was held. EPA received one written comment on the proposed plan.

Response to Comments Received During the Public Comment Period

Comment: EPA received one comment on the proposed plan, from the N.E. Hazel Dell Neighborhood Association. The Neighborhood Association supported EPA's preferred alternative to continue extraction/treatment of the contaminated ground water and make improvements to the system.

Response: EPA is appreciative of the Neighborhood Association's support and thanks them for their comment.

APPENDIX B ADMINISTRATIVE RECORD INDEX

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ADDRESSEE(S):

Gall Keyes/State of Washington

Edward Taktch/Pacific NW Plating

2

DESCRIPTION: Letter describing engineering plans and specifications for complying with Dept. of Ecology's order

on wastewater containment.

1. 1. . . Vol. 1 - 1037010 DOC ID: 35169 IMAGED

PAGES: DATE: 12/15/82 2

ADDRESSEE(S): AUTHOR(S):

Jonathan Neel/State of Washington Dept. of Ecology Edward Takitch/Pacific NW Plating

DESCRIPTION: Letter outlining Dept. of Ecology's concerns about wastewater engineering plans and specifications.

1. 1. . . Vol. 1 -1037011 DOC ID: 35170 IMAGED

DATE: 12/23/82 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Jason Niblett/Pacific NW Plating Jonathan Neel/Washington State Department of

DESCRIPTION: Letter requesting more time to comply with Dept. of Ecology's requests.

DOC ID: 35171 IMAGED 1. 1. . . Vol. 1 - 1037012

PAGES: DATE: 1/12/83 1

AUTHOR(S): ADDRESSEE(S):

Washington State Department of Ecology WDOE

DESCRIPTION: Phone conversation record of conversation with Ed Takitch and Jason Niblett regarding plating

tanks.

1. 1. . . Vol. 1 -35172 IMAGED 1037013 DOC ID:

DATE: 1/31/83 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Jason Niblett/Pacific NW Plating Jon Neel/Washington State Department of

Ecology

DESCRIPTION: Submittal of wastewater plans and specifications.

35173 IMAGED 1. 1. . . Vol. 1 -1037014 DOC ID:

PAGES: DATE: 2/25/83

ADDRESSEE(S): AUTHOR(S):

Jonathan Neel/State of Washington Dept. of Ecology Jason Niblett/Pacific NW Plating

DESCRIPTION: Letter allowing two months to complete installation of wastewater collection system, and request

for submittal of a revised plan.

1. 1. . . Vol. 1 -1037015 DOC ID: 35174 IMAGED

PAGES: DATE: 3/9/83 2

AUTHOR(S): ADDRESSEE(S):

Jason Niblett/Pacific NW Plating Jon Neel/Washington State Department of

DESCRIPTION: Submittal of revisions to wastewater treatment plans.

1037016 DOC ID: 35175 MAGED 1. 1. . . Vol. 1 -

PAGES: 2 DATE: 3/11/83

AUTHOR(S): ADDRESSEE(S):

Ed Takitch/Pacific Northwest Plating Jon Neel/State of Washington Dept. of Ecology

DESCRIPTION: Submittal of Spill Prevention Control and Counter Measure plans.

1. 1. . . Vol. 1 - 1037018 DOC ID: 35176 MAGED

PAGES: DATE: 4/25/85 1

ADDRESSEE(S): AUTHOR(S):

M. A. Olczak/Science Applications International Unknown .

Corporation

DESCRIPTION: Phone contact report of call to Assessor's office regarding ownership/taxpayer of Pacific NW

Plating property.

Pane

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN, RECORD INDEX DOC ID: 1. 1. . . Vol. 1 -1037019 35177 MAGED DATE: 4/25/85 PAGES: 1 ADDRESSEE(S): AUTHOR(S): M. A. Olczak/Science Applications International Unknown Corporation DESCRIPTION: Phone contact report of conversation with Howard Steeley of Dept. of Ecology about site inspection. 1. 1. . . Vol. 1 -1037020 DOC ID: 35178 IMAGED DATE: 4/27/85 PAGES: 1 ADDRESSEE(S): AUTHOR(S): M. A. Olczak/Science Applications International Unknown Corporation DESCRIPTION: Phone contact report of conversation with Gary Bickett of Clark County Environmental Health Dept. 35179 MAGED 1. 1. . . Vol. 1 -1037021 DOC ID: DATE: 5/23/88 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Mark A. Ader/Ecology & Environment, Inc. John Osborn/EPA DESCRIPTION: Memo stating that a Preliminary Assessment was not necessary as Dept. of Ecology had already completed a site inspection. 1. 1. . . Vol. 1 -1037022 DOC ID: 35180 IMAGED DATE: 7/20/88 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Barrett Tookey/Ecology & Environment, Inc. Unknown DESCRIPTION: Contact report with Paul Curtis at Pacific NW Plating stating that well sampling was completed 1037023 DOC ID: 35181 IMAGED 1. 1. . . Vol. 1 -DATE: 7/22/88 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Barrett Tookey/Ecology & Environment, Inc. Unknown DESCRIPTION: Contact report with Beth Roland at Dept. of Ecology regarding monitoring well samples. 1037024 DOC ID: 35182 MAGED 1. 1. . . Vol. 1 -DATE: 8/9/88 PAGES: 1 ADDRESSEE(S): AUTHOR(S): Barrett Tookey/Ecology & Environment, Inc. Unknown DESCRIPTION: Contact report with Paul Stash at Dept. of Ecology regarding condition of site. 1. 1. . . Vol. 1 -1037025 DOC ID: 35183 **MAGED** DATE: 8/ 9/88 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Barrett Tookey/Ecology & Environment, Inc. Unknown DESCRIPTION: Contact report with Ed Takitch at Pacific NW Plating regarding hiring Riedel Environmental to conduct well sampling. DOC ID: 35184 MAGED 1. 1. . . Vol. 1 -1037026 DATE: 12/20/88 PAGES: 8 AUTHOR(S): ADDRESSEE(S):

1. 1. . . Vol. 1 - 1037027 DOC ID: 35185 IMAGED
DATE: 12/20/88 PAGES: 7

Thomas Eaton/State of Washington

dangerous wastes.

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Letter and Order No. DE 88-S238 advising Boomsnub to take appropriate action regarding

Boomsnub Corp.

Page

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN, RECORD INDEX Thomas Eaton/State of Washington Boomsnub Corp. DESCRIPTION: Letter and Order No. DE 88-S239 notice of Penalty Incurred and Due. 1. 1. . . Vol. 1 - 1037028 DOC ID: 35186 IMAGED DATE: 5/11/91 ~ PAGES: 5 AUTHOR(S): ADDRESSEE(S): Elizabeth McManus/EPA Dave Davies/Washington State Department of Ecology DESCRIPTION: Memo regarding RCRA violations and description of inspection at Airco on 5/6/92. 1. 1. . . Vol. 1 -1037029 DOC ID: 35187 IMAGED DATE: 1/13/93 PAGES: 10 AUTHOR(S): ADDRESSEE(S): Unknown Unknown DESCRIPTION: Group of worksheets describing sampling events done at Boomsnub. SUB-HEAD: 1. 2. . . Vol. 1 - "Preliminary Assessment 1. 2. . Vol. 1 -1037044 DOC ID: 35194 MAGED 2 DATE: PAGES: ADDRESSEE(S): AUTHOR(S): JRB Asociates Shapiro & Associates DESCRIPTION: Attachment B. RCRA Section 3012 Preliminary Assessment Program Land Use and Demography. 1037045 DOC ID: 35195 MAGED 1. 2. . . Vol. 1 -DATE: PAGES: 3 ADDRESSEE(S): AUTHOR(S): Shapiro & Associates JRB Asociates DESCRIPTION: Attachment B, RCRA Section 3012 Preliminary Assessment Program Surface and Groundwater Hydrology. 1. 2. . Vol. 1 -1037048 DOC ID: 35196 IMAGED PAGES: DATE: 1 ADDRESSEE(S): AUTHOR(S): **Engineering Technician Services** Unknown DESCRIPTION: Well grid map. 1037047 35197 **IMAGED** 1. 2. . Vol. 1 -DOC ID: DATE: PAGES: 1 AUTHOR(S): ADDRESSEE(S): Unknown Unknown DESCRIPTION: Page from "Geology and Groundwater, Clark County, Washington" with cross-section illustrations showing location of groundwater. 1. 2. . . Vol. 1 -1037048 DOC ID: 35198 IMAGED DATE: 3/19/81 PAGES: 2 ADDRESSEE(S): AUTHOR(S):

State of Washington Dept. of Ecology Brett Unknown/Unknown

DESCRIPTION: Inspection Report.

1. 2. . . Vol. 1 - 1037049 DOC ID: 35199 IMAGED

DATE: 6/22/81 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Brett Betts/State of Washington Jon Unknown/Unknown

DESCRIPTION: Inspection Report with attached memorandum and data sheets.

1. 2. . . Vol. 1 -1037050 DOC ID: 35200 IMAGED DATE: 6/22/81 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Brett Betts/State of Washington Unknown DESCRIPTION: Photo looking east at back of PNW Plating building. 1. 2. . . Vol. 1 - 1037051 DOC ID: 35201 IMAGED DATE: 4/28/82 · PAGES: ADDRESSEE(S): AUTHOR(S): Eric Egbers/Washington State Department of Ecology Jim Unknown/Unknown **DESCRIPTION: Inspection Report.** DOC ID: 35202 IMAGED 1. 2. . . Vol. 1 - 1037052 DATE: 6/7/82 PAGES: 4 AUTHOR(S): ADDRESSEE(S): Eric Egbers/Washington State Department of Ecology Unknown DESCRIPTION: Inspection Report with attached Environmental Laboratory Data Summary reports. DOC ID: 35203 MAGED 1. 2. . . Vol. 1 -1037053 PAGES: DATE: 9/ 1/83 2 AUTHOR(S): ADDRESSEE(S): Eric Egbers/Washington State Department of Ecology Frank Unknown/Unknown **DESCRIPTION: Inspection Report.** 1. 2. . . Vol. 1 - 1037039 DOC ID: 35189 IMAGED DATE: 5/24/85 PAGES: 1 AUTHOR(S): ADDRESSEE(S): **EPA** Unknown DESCRIPTION: Potential Hazardous Waste Site Preliminary Assessment Summary Memorandum. 1. 2. . . Vol. 1 - 1037040 DOCID: 35190 IMAGED DATE: 5/24/85 PAGES: 1 ADDRESSEE(S): AUTHOR(S): EPA Unknown DESCRIPTION: Potential Hazardous Waste Site Preliminary Assessment Part 1 - Site Information and Assessment. 1. 2. . . Vol. 1 -1037041 DOCID: 35191 IMAGED 1 DATE: 5/24/85 PAGES: AUTHOR(S): ADDRESSEE(S): Unknown DESCRIPTION: Potential Hazardous Waste Site Preliminary Assessment Part 2 - Waste Information. 1. 2. . . Vol. 1 -1037042 DOC ID: 35192 IMAGED DATE: 5/24/85 PAGES: 2 AUTHOR(S): ADDRESSEE(S): **EPA** Unknown DESCRIPTION: Potential Hazardous Waste Site Preliminary Assessment Part 3 - Description of Hazardous Conditions & Incidents. 1. 2. . Vol. 1 - 1037043 DOC ID: 35193 IMAGED

DATE: 5/24/85 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Unknown Unknown

DESCRIPTION: USGS quadrant map of site assessment area.

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1. 2. . . Vol. 1 - 1037038 DOC ID: 35188 IMAGED

DATE: 8/9/85 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Robert E. Kievit/EPA EPA

DESCRIPTION: Potential Hazardous Waste Site disposition form assigning medium priority to sampling soil and

groundwater.

SUB-HEAD: 1. 3. . . Vol. 1 - Site Inspection Report

1. 3. . . Vol. 1 - 1037055 DOC ID: 35204 IMAGED

DATE: 3/1/87 PAGES: 127

AUTHOR(S): ADDRESSEE(S):

Michael J. Spencer/WDOE Unknown

DESCRIPTION: Phase I & II Site Inspection Report; contains material indexed in Sections 1.1 and 1.2

1. 3. . . Vol. 1 - 1037348 DOC ID: 35721 IMAGED

DATE: 4/ 1/94 PAGES: 47

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Chris Field/EPA

DESCRIPTION: Quality Assurance Sampling Plan.

1. 3. . . Vol. 1 - 1030276 DOC ID: 67471 IMAGED

DATE: 11/30/95 PAGES: 379

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Site Assessment Report.

SUB-HEAD: 1. 4. . . Vol. 1 - RCRA Compliance Evaluation Inspection

1. 4. . . Vol. 1 - 1037054 DOC ID: 35205 IMAGED

DATE: 12/1/88 PAGES: 115

AUTHOR(S): ADDRESSEE(S):

Jacobs Engineering EPA

DESCRIPTION: Final Report, RCRA Compliance Evaluation Inspection.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.2.

SUB-HEAD: 1. 5. . . Vol. 1 - Sampling & Well Log Data

1. 5. . . Vol. 1 - 1037058 DOC ID: 35208 IMAGED

DATE: PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Washington Department of Conservation Unknown

DESCRIPTION: Well logs dated 1939 through 10/7/68.

1. 5. . . Vol. 1 - 1037057 DOC ID: 35207 IMAGED

DATE: PAGES: 30

AUTHOR(S): ADDRESSEE(S):

State of Washington Unknown

DESCRIPTION: Water well reports dated 2/10/71 through 8/13/82.

1. 5. . . Vol. 1 - 1037058 DOC ID: 35208 IMAGED

DATE: 2/9/83 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

State of Washington Dent. of Ecology Unknown

DESCRIPTION: Olympia Environmental Laboratory Data Summary Report.

1, 5. . . Vol. 1 - 1037059 DOC ID: 35209 IMAGED

DATE: 3/20/85 PAGES:

AUTHOR(S): - ADDRESSEE(S):

State of Washington Unknown

DESCRIPTION: Public Water Supply System Listing.

1. 5. . . Vol. 1 - 1037062 DOC ID: 35212 IMAGED

DATE: 1/1/87 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Riedel Environmental Services Unknown

DESCRIPTION: Table 2 "Total Chromium in Soil."

1. 5. . . Vol. 1 - 1037060 DOC ID: 35210 IMAGED

DATE: 7/10/87 PAGES: 44

AUTHOR(S): ADDRESSEE(S):

Riedel Environmental Services Unknown

DESCRIPTION: Field Investigation Report for Pacific Northwest Plating.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.2.

1. 5. . . Vol. 1 - 1037061 DOC ID: 35211 IMAGED

DATE: 5/ 2/88 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Ecology & Environment, Inc. Unknown

DESCRIPTION: Logbook of phone conversations regarding site.

1, 5, ... Vol. 1 - 1037063 DOC ID: 35213 IMAGED

DATE: 1/30/90 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Dames & Moore Unknown

DESCRIPTION: Report: Installation and Sampling of Monitoring Well MW-5.

1. 5. . . Vol. 1 - 1037064 DOC ID: 35214 IMAGED

DATE: 8/10/90 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Dames & Moore Unknown

DESCRIPTION: Report: Installation and Sampling of Monitoring Well MW-5B.

1. 5. . . Vol. 1 - . 1037066 DOC ID: 35216 IMAGED

DATE: 5/31/91 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

PTI Environmental Services Unknown

DESCRIPTION: Table 15 Soil Analysis Summary.

1. 5. . . Vol. 1 - 1037065 DOC ID: 35215 IMAGED

DATE: 7/11/91 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

PTI Environmental Services Unknown

DESCRIPTION: Figure 3: Total chromium.

1. 5. . . Vol. 1 - 1037067 DOC ID: 35217 IMAGED

DATE: 1/1/92 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation Unknown

DESCRIPTION: Table 4-2 Summary of Soil Sampling Analytical Results.

. Vol. 1 - 1037068 DOC ID: 35218 IMAGED

DATE: 1/1/93 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation Unknown

DESCRIPTION: Table 3 Total Chromium Concentrations in Soil Samples Collected During Drilling.

1037069 1, 5, . . Vol. 1 -DOC ID: 35219 IMAGED

> DATE: 1/20/95 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Harold Anderson/Unknown

DESCRIPTION: Letter regarding results of testing of well water for Chromium and VOCs.

SUB-HEAD: 1. 6. . . Vol. 1 -**NPL Documentation**

1. 6. . . Vol. 1 -1037070 DOC ID: 35220 IMAGED

DATE: 1/1/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: National Priorities List, letters requesting addition of Boomsnub to NPL, and Fact Sheet on

Boomsnub.

35222 IMAGED 1. 6. . . Vol. 1 -1037071 DOC ID:

DATE: 1/18/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: Federal Register Vol. 59, No. 11: National Priorities List for Uncontrolled Hazardous Waste Sites,

Proposed Rule No. 16.

35223 MAGED 1. 6. . . Vol. 1 -1037072 DOC ID:

DATE: 3/17/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

James Merriam/Alrco Gases **EPA**

DESCRIPTION: Letter to EPA Docket Office requesting that Airco and Boomsnub be considered separately on the

NPL listing.

35224 MAGED 1. 6. . . Vol. 1 -1037073 DOC ID:

DATE: 5/9/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

David B. Jansen/State of Washington Dept. of Ecology

DESCRIPTION: Letter to EPA Docket Office disagreeing with Airco's letter and stating why it should be included on

the NPL listing.

1. 6. . . Vol. 1 -1037074 DOC ID: 35225 MAGED

DATE: 4/ 1/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Unknown **EPA**

DESCRIPTION: NPL listing for Boomsnub/Airco.

1037075 35227 IMAGED DOC ID: 1. 6. . . Vol. 1 -

PAGES: 17 DATE: 4/ 1/95

ADDRESSEE(S): AUTHOR(S):

EPA Unknown

DESCRIPTION: Support Document for the Revised National Priorities List Final Rule.

1. 6. . . Vol. 1 - 1037076 DOC ID: 35230 IMAGED

DATE: 4/17/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Mike Lowry/State of Washington Carol Browner/EPA

DESCRIPTION: Letter supporting NPL listing for Boomsnub/Airco.

1. 6. . . Vol. 1 - 1037077 DOC ID: 35231 IMAGED

DATE: 4/25/95 PAGES: 25

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: Federal Register: National Priorities List for Uncontrolled Hazardous Waste Sites - Final Rule.

SUB-HEAD: 1. 7. . . Vol. 1 - Treatment Technology Alternatives Evaluation

1. 7. . . Vol. 1 - 1037078 DOC ID: 35232 IMAGED

DATE: 5/ 1/94 PAGES: 22

AUTHOR(S): ADDRESSEE(S):

Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Report: Evaluation of Treatment Technology Alternatives for the Removal/Remediation of

Chromium Contaminated Soll.

1, 7, . . Vol. 1 - 1037097 DOC ID: 35251 IMAGED

DATE: 5/20/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Letter regarding Treatment Technologies Evaluation Report for treatment of contaminated soils.

1. 7. . . Vol. 1 - 1037099 DOC ID: 35253 IMAGED

DATE: 7/20/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Sherwood T. Cutler/EPA Ann Williamson/EPA

DESCRIPTION: Pros and cons of water treatment options.

1. 7. . . Vol. 1 - 1037100 DOC ID: 35254 IMAGED

DATE: 7/21/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Sherwood T. Cutter/EPA Ann Williamson/EPA

DESCRIPTION: Cost Estimates for water treatment options.

1. 7. . . Vol. 1 - 1037101 DOC ID: 35255 IMAGED

DATE: 7/25/94 PAGES: 21

AUTHOR(S): ADDRESSEE(S):

Rick Roehl/Ecology & Environment, Inc. Chrls D. Field/EPA

DESCRIPTION: Report: Evaluation of Treatment Alternatives for Removal of Hexvalent Chromium and Volatile

Organic Compounds from Groundwater at the Boomsnub Site.

1. 7. . . Vol. 1 - 1037102 DOC ID: 35258 #MAGED

DATE: 7/26/94 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

CET Environmental Services Thor Cutler/EPA

DESCRIPTION: Report: Design Development, 100 GPM Ion Exchange System for Removal of Hexvalent Chrome

from Groundwater at the Boomsnub Site.

1. 7. . . Vol. 1 - 1030133 DOC ID: 42607 IMAGED

DATE: 8/ 1/94 PAGES: 23

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Cover letter and Engineering Evaluation and Cost Analysis of Boomsnub Groundwater Treatment System.

1. 7. . . Vol. 1 - 1037103 DOC ID: 35257 IMAGED

DATE: 8/31/94 - PAGES: 11

Rick Roehl/Ecology & Environment, Inc.

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding Boomsnub treatability studies and attached sampling results from Andco

Unknown

Environmental Processes, Inc.

1. 7. . . Vol. 1 - 1037098 DQC ID: 35252 IMAGED

DATE: 10/14/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Ecology & Environment, Inc. Unknown

DESCRIPTION: Proposed plans and Cost Analysis, Groundwater Extraction Network Expansion.

SUB-HEAD: 1. 8. . . Vol. 1 - Groundwater Monitoring Reports

1. 8. . . Vol. 1 - 1037597 DOC ID: 40507 IMAGED

DATE: 4/ 1/92 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 4/92 Groundwater Monitoring Report.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.3

1. 8. . . Vol. 1 - 1037598 DOC ID: 40508 IMAGED

DATE: 3/16/94 PAGES: 53

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 1/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037599 DOC ID: 40509 IMAGED

DATE: 4/7/94 PAGES: 51

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 2/94 Groundwater Monitoring Report.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.3.

1. 8. . . Vol. 1 - 1037600 DOC ID: 40510 IMAGED

DATE: 4/26/94 PAGES: 59

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 3/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037601 DOC ID: 40511 IMAGED

DATE: 6/22/94 PAGES: 47

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 4/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037602 DOC ID: 40512 IMAGED

DATE: 8/5/94 PAGES: 38

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 6/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037603 DOC ID: 40513 IMAGED

DATE: 9/12/94 PAGES: 27

AUTHOR(S): - ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 7/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037604 DOC ID: 40514 IMAGED

DATE: 10/10/94 PAGES: 49

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 8/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037605 DOC ID: 41051 IMAGED

DATE: 11/1/94 PAGES: 27

AUTHOR(S): ADDRESSEE(S):

SAIC, Inc. EPA

DESCRIPTION: 9/10 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037606 DOC ID: 40516 IMAGED

DATE: 12/5/94 PAGES: 51

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 10/94 Groundwater Monitoring Report.

. 1. 8. . . Vol. 1 - 1037607 DOC ID: 40517 IMAGED

DATE: 1/1/95 PAGES: 26

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 11/94 Groundwater Monitoring Report.

1. 8. . . Vol. 1 - 1037608 DOC ID: 40518 IMAGED

DATE: 2/21/95 PAGES: 27

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: 12/94 Groundwater Monitoring Report.

SUB-HEAD: 1. 9. . . Vol. 1 - State of Washington Reports

SUB-HEAD: 1. 1. 1. . Vol. 1 - Hydrogeologic Investigations

1. 9. 1. . Vol. 1 - 1037610 DOC ID: 40519 IMAGED

DATE: 4/ 1/91 PAGES: 71

AUTHOR(S): ADDRESSEE(S):

ICF Technology, Inc.

State of Washington Dept. of Ecology

DESCRIPTION: Recommended Expedited Interim Actions.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.2.

8UB-HEAD: 1. 9. 2. . Vol. 1 - Interim Actions & Work Plans

1. 9. 2. . Vol. 1 - 1037612 DOC ID: 40520 IMAGED

DATE: 4/ 1/91 PAGES: 88

AUTHOR(S): ADDRESSEE(S):

ICF Technology, Inc.

State of Washington Dept. of Ecology

DESCRIPTION. Results of Hydrogeologic Investigations, Vol. 1 of 2.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.2.

1. 9. 2. . Vol. 1 - -1037613 DOC ID: 40521 IMAGED

DATE: 5/1/91 PAGES: 30

AUTHOR(S): ADDRESSEE(S):

ICF Technology, Inc.

State of Washington Dept. of Ecology.

DESCRIPTION: Performance Specifications and Statement of Work for Packed Tower Air Stripper with

Vapor-phase Carbon Unit and Air Delivery System.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.2.

1, 9, 2, , Vol. 1 - 1037611 DOC ID: 40522 IMAGED

DATE: 7/14/92 PAGES: 153

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: Final Project Report on Interim Action on Monitoring Well Installation.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.3.

1. 9. 2. . Vol. 1 - 1037614 DOC ID: 40523 IMAGED

DATE: 1/18/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Unknown

DESCRIPTION: Scope of Work for Continuation of Groundwater Monitoring.

1. 9. 2. . Vol. 1 - 1037615 DOC ID: 40524 IMAGED

DATE: 2/22/94 PAGES: 24

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: Final Work Plan for Soil Boring Installations.

1. 9. 2. . Vol. 1 - 1037503 DOC ID: 40227 IMAGED

DATE: 6/27/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Ecology City of Vancouver DESCRIPTION: Boomsnub Ground Water Treatment System Engineering Report.

SUB-HEAD: 1. 9. 3. . Vol. 1 - Groundwater Well Installation

1. 9. 3. . Vol. 1 - 1037616 DOC ID: 40525 IMAGED

DATE: 3/ 1/93 PAGES: 107

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: Draft Three-Dimensional Groundwater Flow Modeling to Optimize Extraction System Efficiency

Report

1. 9. 3. . Vol. 1 - 1037617 DOC ID: 40526 IMAGED

DATE: 5/14/93 PAGES: 619

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: Summary Report on Groundwater Monitoring Well Installations.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.3.

1. 9. 3. . Vol. 1 - 1037618 DOC ID: 40527 IMAGED

DATE: 11/5/93 PAGES: 227

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: Summary Report on Groundwater Monitoring Well Installations.

NOTE: Document is located in Boomsnub Removal Administrative Record, Section 1.3.

1. 9. 3. . Vol. 1 - 1037619 DOC ID: 40528 IMAGED

DATE: 2/11/94 PAGES: 205

AUTHOR(S): ADDRESSEE(S):

Science Applications International Corporation State of Washington Dept. of Ecology

DESCRIPTION: Groundwater Treatment System Engineering Report and Operation Manual.

1. 9. 3. . Vol. 1 - 1037620 DOC ID: 40529 IMAGED

DATE: 9/28/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Dan Alexanian/WDOE Thor Cutter/EPA

DESCRIPTION: Draft proposal for suggested pump rates for network wells.

1. 9. 3. . Vol. 1 - 1037621 DOC ID: 40530 IMAGED

DATE: 9/30/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Bruce Wilson/Ecology & Environment John Roland/Ecology & Environment, Inc.

DESCRIPTION: Analytical flow models.

1. 9. 3. . Vol. 1 - 1037622 DOC ID: 40531 IMAGED

DATE: 9/30/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Thor Cutter/EPA DESCRIPTION: Letter and three pumping scenarios and associated capture plots.

1. 9. 3. . Vol. 1 - 1037823 DOC ID: 40532 IMAGED

DATE: 9/30/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Bruce Wilson/Ecology & Environment, Inc.

DESCRIPTION: Revised well models.

SUB-HEAD: 1.11. . . Vol. 1 - Removal Activities

SUB-HEAD: 1.11. 2. . Vol. 1 - Action Memoranda

1, 11, 2, . Vol. 1 - 1037156 DOC ID: 35313 IMAGED

DATE: 5/13/94 PAGES: 51

AUTHOR(S): ADDRESSEE(S):

Sherwood T, Cutler/EPA Chuck Clarke/EPA

DESCRIPTION: Action Memorandum requesting approval for a proposed removal action and exemption from the 2 million dollar statutory limit.

1.11. 2. Vol. 1 - 1037157 DOC ID: 35314 IMAGED

DATE: 9/9/94 PAGES: 17

AUTHOR(S): ADDRESSEE(S):

Sherwood T. Cutler/EPA Randall F. Smith/EPA

DESCRIPTION: Action memorandum requesting a ceiling increase and exemption to the 2 million dollar limit.

1. 11. 2. . Vol. 1 - 1030631 DOC ID: 70601 IMAGED DATE: 9/14/94 2 PAGES: AUTHOR(S): ADDRESSEE(S): Mary B. Hayes/Washington Dept. of Ecology Thor Cutter/EPA DESCRIPTION: Comments regarding Draft CET Report - Boomsnub Treatment System Evaluation. 35315 IMAGED 1. 11. 2. . Vol. 1 -1037158 DOC ID: DATE: 9/22/94 PAGES: 16 AUTHOR(S): ADDRESSEE(S): Sherwood T. Cutler/EPA Chuck Clarke/EPA DESCRIPTION: Action memorandum requesting a ceiling increase and exemption to the 2 million dollar limit. 1. 11. 2. . Vol. 1 -1037159 DOC ID: 35316 IMAGED DATE: 8/ 7/95 PAGES: 17 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Chuck Clarke/EPA DESCRIPTION: Action memorandum requesting a combined ceiling increase and 12-month limit extension. SUB-HEAD: 1.11. 3. . Vol. 1 -Operation Observations/Sump Lining Reports 1. 11. 3. . Vol. 1 -1037160 DOC ID: 35317 MAGED DATE: 6/5/94 PAGES: -1 AUTHOR(S): ADDRESSEE(S): Michael A. Stanaszek/Landau Associates, Inc. Unknown DESCRIPTION: Sump lining hydrotest report. 1. 11. 3. . Vol. 1 -1037161 DOC ID: 35318 IMAGED DATE: 6/7/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Michael A. Stanaszek/Landau Associates, Inc. Unknown DESCRIPTION: Sump lining hydrotest report. 1.11.3. Vol. 1 - 1037162 DOC ID: 35319 MAGED PAGES: DATE: 6/13/94 ADDRESSEE(S): AUTHOR(S): Kris Hendrickson/Landau Associates, Inc. Thor Cutler/EPA DESCRIPTION: Operations Observation Reports for sump lining project. DOC ID: 35320 IMAGED 1.11.3. Vol. 1 - 1037163 DATE: 6/17/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Todd J. Keithahn/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Reports for sump lining project. 1. 11. 3. . Vol. 1 - 1037164 DOC ID: 35321 IMAGED DATE: 6/21/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Kris Hendrickson/Landau Associates, Inc. Thor Cutler/EPA DESCRIPTION: Operations Observation Reports for sump lining project. 1037165 DOC ID: 35322 IMAGED 1.11.3. Vol. 1 -

ADDRESSEE(S):

Thor Cutter/EPA

2

PAGES:

AUTHOR(S):

DATE: 6/22/94

Kris Hendrickson/Landau Associates, Inc.

DESCRIPTION: PVC Pipeline and Fitting Observation Report.

1.11. 3. . Vol. 1 - 1037166 DOCID: 35323 IMAGED

DATE: 6/22/94 PAGES: 2

AUTHOR(S): - ADDRESSEE(S):

Kris Hendrickson/Landau Associates, Inc.

Thor Cutter/EPA

DESCRIPTION: Operations Observation Reports for sump lining project.

1.11.3. . Vol. 1 - 1037167 DOC ID: 35325 IMAGED

DATE: 6/23/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Kris Hendrickson/Landau Associates, Inc. Thor Cutler/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1.11. 3. . Vol. 1 - 1037168 DOCID: 35326 IMAGED

DATE: 6/24/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Kris Hendrickson/Landau Associates, Inc.

Thor Cutler/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1, 11, 3, . Vol. 1 - 1037169 DOC ID: 35327 IMAGED

DATE: 6/27/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mike Stanaszek/Landau Associates, Inc.

Thor Cutter/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1. 11. 3. . Vol. 1 - 1037170 DOC ID: 35328 MAGED

DATE: 6/28/94 PAGES: 2

AUTHOR(\$): ADDRESSEE(\$):

Kris Hendrickson/Landau Associates, Inc. Thor Cutter/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1. 11. 3. . Vol. 1 - 1037171 DOC ID: 35329 IMAGED

DATE: 6/29/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Kris Hendrickson/Landau Associates, Inc. Thor Cutler/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1. 11. 3. . Vol. 1 - 1037172 DOCID: 35330 IMAGED

DATE: 6/30/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Krls Hendrickson/Landau Associates, Inc.

Thor Cutter/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1. 11. 3. . Vol. 1 - 1037173 DOC ID: 35331 IMAGED

DATE: 7/1/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Kris Hendrickson/Landau Associates, Inc.

Thor Cutter/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1.11. 3. . Vol. 1 - 1037174 DOC ID: 35332 IMAGED

DATE: 7/6/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Kris Hendrickson/Landau Associates, Inc.

Thor Cutter/EPA

DESCRIPTION: Operations Observation Report for sump lining project.

1, 11, 3, . Vol. 1 - 1037175 DOC ID: 35333 **MAGED** DATE: 7/7/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Kris Hendrickson/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1.11.3. Vol. 1 - 1037176 DOC ID: 35334 IMAGED DATE: 7/8/94 PAGES: 3 AUTHOR(S): ADDRESSEE(S): Kris Hendrickson/Landau Associates, Inc. Thor Cutier/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1.11.3. Vol. 1 - 1037177 DOC ID: 35335 IMAGED DATE: 7/11/94 PAGES: 3 AUTHOR(S): ADDRESSEE(S): Kris Hendrickson/Landau Associates, Inc. Thor Cutler/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037178 DOC ID: 35336 IMAGED DATE: 7/12/94 2 PAGES: AUTHOR(S): ADDRESSEE(S): Kris Hendrickson/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037179 DOC ID: 35337 IMAGED DATE: 7/13/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037180 DOC ID: . 35338 IMAGED DATE: 7/14/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1.11.3. . Vol. 1 - 1037181 DOC ID: 35339 IMAGED DATE: 7/14/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037182 DOC ID: 35340 IMAGED DATE: 7/15/94 2 PAGES: AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037183 DOC ID: 35341 IMAGED DATE: 7/18/94 3 PAGES: ADDRESSEE(S): AUTHOR(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. DOC ID: 35342 IMAGED 1.11.3. Vol. 1 - 1037184 2 DATE: 7/19/94 PAGES: AUTHOR(S): ADDRESSEE(S):

Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037185 DOC ID: 35343 IMAGED DATE: 7/20/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutler/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1.11.3. Vol. 1 - 1037188 DOC ID: 35344 IMAGED PAGES: 2 DATE: 7/21/94 ADDRESSEE(S): AUTHOR(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutler/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1.11.3. Vol. 1 - 1037187 DOC ID: 35345 IMAGED DATE: 7/22/94 2 PAGES: AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037188 DOC ID: 35346 IMAGED DATE: 7/25/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037189 DOC ID: 35347 IMAGED DATE: 7/25/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 - 1037190 DOC ID: 35348 IMAGED DATE: 7/27/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project, 1.11.3. Vol. 1 - 1037191 DOC ID: 35349 MAGED DATE: 7/28/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Stanaszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Vol. 1 -1037192 DOC ID: 35350 IMAGED DATE: 7/29/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mike Staneszek/Landau Associates, Inc. Thor Cutter/EPA DESCRIPTION: Operations Observation Report for sump lining project. 1. 11. 3. . Voi. 1 - 1030297 DOC ID: 41039 IMAGED DATE: 4/24/95 PAGES: 3 AUTHOR(S): ADDRESSEE(S): M. T. DeBettencourt/U. S. Coast Guard Thor Cutter/EPA

DESCRIPTION: Incident Summary Report Case # 024-94 carried out by Pacific Strike Team.

SUB-HEAD: 1.11. 6. . Vol. 1 - Sampling Activities

1. 11. 6. . Vol. 1 - 4030194 DOC ID: 42790 IMAGED

DATE: 3/31/94 PAGES: 16

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Lila A. Transue/Sound Analytical Services

DESCRIPTION: Transmittal forms for information regarding TAT sampling and costs.

1. 11. 6. . Vol. 1 - 1037320 DOC ID: 35551 IMAGED

DATE: 4/28/94 PAGES: 17

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment Chris Field/EPA

DESCRIPTION: Draft maps and preliminary data tables to assist in preparing removal action memorandum.

NOTE: A/R includes first two pages only (cover letter and document list). Maps and tables are with

document #35313, Section 1.11.2.

1. 11. 6. , Vol. 1 - 1030594 DOC ID: 70352 IMAGED

DATE: 5/17/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Inorganic Data Quality Assurance Review of 1 water

and 5 soil samples.

1, 11, 6, . Vol. 1 - 1030595 DOC ID: 70353 IMAGED

DATE: 5/17/94 PAGES: 18

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Organic Data Quality Assurance Review of 1 water

and 6 soil samples.

1.11. 6. . Vol. 1 - 1030596 DOC ID: 70354 IMAGED

DATE: 5/27/94 PAGES: 53

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Organic Data Quality Assurance Review of 1 water

and 24 soil samples.

1.11, 6. . Vol. 1 - 1030597 DQC ID: 70355 MAGED

DATE: 5/31/94 PAGES: 17

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Inorganic Data Quality Assurance Review of 1 sludge

and 6 product samples.

1.11. 6. . Vol. 1 - 1030598 DOC ID: 70356 IMAGED

DATE: 6/2/94 PAGES: 16

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Inorganic Data Quality Assurance Review of 7 acid

and 12 soil samples.

1.11. 6. . Vol. 1 - 1030599 DOC ID: 70357 IMAGED

DATE: 6/8/94 PAGES: 163

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Inorganic Data Quality Assurance Review of 3 water and 77 soil samples.

1.11. 6. . Vol. 1 - 1030600 DOCID: 70358 IMAGED

DATE: 6/8/94 PAGES: 21

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Inorganic Data Quality Assurance Review of 1 water and 18 soil samples.

1.11.6. . Vol. 1 - 1030601 DOC ID: 70359 IMAGED

DATE: 6/8/94 PAGES: 42

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9403-009, Organic Data Quality Assurance Review of 1 water and 18 soil samples.

1.11. 6. . Vol. 1 - 1037349 DOC ID: 35722 IMAGED

DATE: 6/16/94 PAGES: 46

AUTHOR(S): ADDRESSEE(S):

William Carberry/Ecology & Environment Chris Field/EPA

DESCRIPTION: Quality Assurance Sampling Plan.

1.11. 6. . Vol. 1 - 1030527 DOC ID: 70277 IMAGED

DATE: 7/29/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008 Organic Data Quality Assurance Review of 3 water samples.

1.11. 6. . Vol. 1 - 1030528 DOC ID: 70278 IMAGED

DATE: 8/ 1/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008 Organic Data Quality Assurance Review of 1 water sample.

1, 11, 6, . Vol. 1 - 1030529 DOC ID: 70279 IMAGED

DATE: 8/ 1/94 PAGES: 15

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Organic Data Quality Assurance Review of 6 soil samples.

1. 11. 6. . Vol. 1 - 1030530 DOC ID: 70280 IMAGED

DATE: 8/ 1/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9408-008, Organic Data Quality Assurance Review of 2 water samples.

1.11. 6. . Vol. 1 - 1030531 DOC ID: 70281 IMAGED

DATE: 8/ 1/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 1C-9408-008, Inorganic Data Quality Assurance Review of 2 water samples.

1.11. 6. . Vol. 1 - 1030532 DOC ID: 70282 IMAGED

DATE: 8/11/94 - PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Organic Data Quality Assurance Review of 2 water

samples.

1. 11. 6. . Vol. 1 - 1030533 DOC ID: 70283 IMAGED

DATE: 8/11/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 3 water

samples.

1, 11, 6, . Vol. 1 - 1030534 DOC ID: 70284 IMAGED

DATE: 8/11/94 PAGES: 9

AUTHOR(S): ADDRÉSSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 3 water

samples.

1, 11. 6. . Vol. 1 - 1030535 DOC ID: 70285 IMAGED

DATE: 9/2/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-001, Inorganic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 1 - 1030536 DOC ID: 70286 IMAGED

DATE: 9/6/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-001, Inorganic Data Quality Assurance Review of 1 water

sample.

1.11. 6. . Vol. 1 - 1030537 DOC ID: 70287 IMAGED

DATE: 9/12/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 1 water

sample.

1.11. 6. . Vol. 1 - 1030538 DOC ID: 70288 IMAGED

DATE: 9/22/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 9 filter

samples.

1.11. 6. . Vol. 1 - 1030539 DOC ID: 70289 IMAGED

DATE: 9/22/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 10-9408-008, Inorganic Data Quality Assurance Review of 8 filter samples.

1.11. 6. . Vol. 1 - 1030540 DOC ID: 70290 IMAGED

DATE: 9/22/94 _ PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 9 fitter

samples.

1.11. 6. . Vol. 1 - 1030541 DOC ID: 70291 IMAGED

DATE: 9/22/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 9 filter

samples.

1, 11, 6, . Vol. 1 - 1030542 DOC ID: 70292 IMAGED

DATE: 9/22/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 9 filter

samples.

1, 11, 6, . Vol. 1 - 1030543 DOC ID: 70294 IMAGED

DATE: 9/22/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 9 filter

samples.

1.11.6. . Vol.1 - 1030544 DOCID: 70295 MAGED

DATE: 9/23/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 1 water

sample.

1.11. 6. . Vol. 1 - 1030545 DOC ID: 70296 IMAGED

DATE: 9/23/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Organic Data Quality Assurance Review of 1 water

sample.

1. 11. 6. . Vol. 1 - 1030546 DOC ID: 70297 IMAGED

DATE: 9/28/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 4 filter

samples.

1.11. 6. . Vol. 1 - 1030547 DOC ID: 70299 MAGED

DATE: 9/28/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 2 filter samples.

1.11.6. . Vol. 1 - 1030548 DOC ID: 70300 IMAGED

DATE: 9/30/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Organic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 1 - 1030549 DOC ID: 70301 IMAGED

DATE: 9/30/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Inorganic Data Quality Assurance Review of 3 water samples.

SUB-HEAD: 1. 11. 6. . Vol. 2 - Sampling Activities

1, 11, 6, Vol. 2 - 1030456 DOC ID: 70190 IMAGED

DATE: 10/17/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review.

1.11. 6. . Vol. 2 - 1030457 DOC ID: 70191 IMAGED

DATE: 10/17/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-4910-022, Inorganic Data Quality Assurance Review of 3 soil samples.

1,11. 6. . Vol. 2 - 1030458 DOC ID: 70192 IMAGED

DATE: 10/17/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 solid

samples.

1.11. 6. , Vol. 2 - 1030459 DOC ID: 70202 IMAGED

DATE: 10/17/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 5 filter

samples.

1.11. 6. . Vol. 2 - 1030460 DOC ID: 70205 IMAGED

DATE: 10/17/94 PAGES: 14

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum'regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 6 filter

and 4 soil samples.

1.11. 6. . Vol. 2 - 1030461 DOC ID: 70207 IMAGED

DATE: 10/17/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

Pana

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water samples.

1.11.6. . Vol. 2 - 1030550 DOC ID: 70303 IMAGED

DATE: 10/17/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 liquid

samples.

1.11. 6. . Vol. 2 - 1030551 DOC ID: 70304 IMAGED

DATE: 10/17/94 PAGES: 4

ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 water

samples.

AUTHOR(S):

1.11. 6. . Vol. 2 - 1030552 DOC ID: 70305 MAGED

DATE: 10/17/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 water

samples.

1, 11, 6, . Vol. 2 - 1030553 DOC ID: 70306 MAGED

DATE: 10/17/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples.

1.11. 6. . Vol. 2 - 1030554 DOC ID: 70307 IMAGED

DATE: 10/17/94 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 liquid

and 6 filter samples.

1.11. 6. . Vol. 2 - 1030555 DOC ID: 70308 MAGED

DATE: 10/18/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1.11.6. Vol. 2 - 1030556 DOC ID: 70309 IMAGED

DATE: 10/19/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water

and 3 soil samples.

1.11. 6. . Vol. 2 - 1030557 DOC ID: 70310 IMAGED

DATE: 10/19/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water sample.

1. 11. 6. . Vol. 2 - 1030462 DOC ID: 70209 IMAGED

DATE: 10/20/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1. 11. 6. . Vol. 2 - 1030558 DOC ID: 70311 IMAGED

DATE: 10/20/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 2 - 1030559 DOC ID: 70312 IMAGED

DATE: 10/20/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9406-008, Organic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 2 - 1030463 DOC ID: 70210 IMAGED

DATE: 10/24/94 PAGES: 15

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, inorganic Data Quality Assurance Review of 2 soil and

8 filter samples.

1.11. 6. . Vol. 2 - 1030560 DOC ID: 70313 IMAGED

DATE: 10/24/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water samples.

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1.11. 6. . Vol. 2 - 1030484 DOC ID: 70211 IMAGED

DATE: 10/26/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 2 - 1030465 DOC ID: 70212 IMAGED

DATE: 11/1/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 water samples.

1. 11. 6. . Vol. 2 - 1030466 DOC ID: 70213 IMAGED

DATE: 11/1/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water samples.

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1. 11. 6. . Vol. 2 - 1030561 DOCID: 70314 MAGED

DATE: 11/1/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 6 soil

samples.

1. 11. 6. . Vol. 2 - 1030562 DOC ID: 70315 IMAGED

DATE: 11/1/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 4 air filter

samples.

1. 11. 6. . Vol. 2 - 1030563 DOC ID: 70316 IMAGED

DATE: 11/1/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S): .

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water samples.

1.11. 6. . Vol. 2 - 1030564 DOC ID: 70317 IMAGED

DATE: 11/1/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, inorganic Data Quality Assurance Review of 2 soil samples.

1.11. 6. . Vol. 2 - 1030565 DOC ID: 70318 IMAGED

DATE: 11/1/94 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 air filter samples.

1.11.6. . Vol. 2 - 1030566 DOCID: 70319 MAGED

DATE: 11/1/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 water samples.

1.11. 6. . Vol. 2 - 1030567 DOCID: 70320 IMAGED

DATE: 11/1/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water samples.

1.11. 6. . Vol. 2 - 1030568 DOCID: 70321 IMAGED

DATE: 11/1/94 PAGES: 14

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

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DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 air filter samples.

1.11. 6. Vol. 2 - 1030467 DOC ID: 70214 IMAGED

DATE: 11/2/94 _ PAGES: 3

AUTHOR(S). ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 filter

sample.

1.11. 6. , Vol. 2 - 1030468 DOC ID: 70215 IMAGED

DATE: 11/2/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples.

1.11. 6. . Vol. 2 - 1030469 DOC ID: 70216 IMAGED

DATE: 11/2/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 2 - 1030714 DOC ID: 70322 IMAGED

DATE: 11/2/94 PAGES: 17

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 4 air filter

samples.

1.11. 6. . Vol. 2 - 1030569 DOC ID: 70323 IMAGED

DATE: 11/2/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 soil and

2 water samples.

1.11.6. Vol. 2 - 1030570 DOC ID: 70324 IMAGED

DATE: 11/2/94 PAGES: 22

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 10 soil

and 5 water samples.

1.11.6. . Vol. 2 - 1030571 DOC ID: 70325 IMAGED

DATE: 11/2/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 8 filter

samples.

1.11. 6. . Vol. 2 - 1030572 DOC ID: 70326 IMAGED

DATE: 11/2/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water samples. 70217 IMAGED 1. 11. 6. . Vol. 2 - 1030470 DOC ID: DATE: 11/4/94 PAGES: ADDRESSEE(S): AUTHUR(S): Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 6 sediment samples. 1.11.6. Vol. 2 - 1030573 DOC ID: 70327 MAGED DATE: 11/4/94 PAGES: 5 AUTHOR(S): ADDRESSEE(S): Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 water samples. 70328 MAGED 1. 11. 6. . Vol. 2 - 1030574 DOC ID: DATE: 11/4/94 PAGES: 13 AUTHOR(S): ADDRESSEE(S): Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water and 10 soil samples. 70329 MAGED 1.11.6. Vol. 2 - 1030575 DOC ID: PAGES: DATE: 11/4/94 34 AUTHOR(S): ADDRESSEE(S): Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 4 concrete and 28 soil samples. 1, 11, 6, Vol. 2 - 1030576 70330 MAGED DOC ID: DATE: 11/4/94 PAGES: 12 AUTHOR(S): ADDRESSEE(S): Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 10 concrete samples. 1. 11. 6. . Vol. 2 - 1030577 DOC ID: 70331 MAGED DATE: 11/4/94 PAGES: 7 ADDRESSEE(S): AUTHOR(S): Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 5 water samples. 1. 11. 6. . Vol. 2 - 1030471 DOC ID: 70218 IMAGED DATE: 11/6/94 PAGES: 14

UAIE. 11/0/84 PAGES; 14

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 air filter samples.

1. 11. 6. . Vol. 2 - 1030472 DOC ID: 70219 MAGED DATE: 11/6/94 PAGES: 14

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 air filter samples.

1.11. 6. . Vol. 2 - 1030473 DOC ID: 70220 IMAGED

DATE: 11/6/94 _ PAGES: 17

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water,7 air filter and 5 solid/soil/sediment samples.

1.11. 6. . Vol. 2 - 1030578 DOC ID: 70333 IMAGED

DATE: 11/6/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 sorbent

tube samples.

1. 11. 6. . Vol. 2 - 1030579 DOC ID: 70334 MAGED

DATE: 11/6/94 PAGES: 16

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, inorganic Data Quality Assurance Review of 7 air filter

and 4 soil samples.

1, 11, 6, . Vol. 2 - 1030580 DOC ID: 70335 MAGED

DATE: 11/6/94 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 8 air filter

samples.

1.11. 6. . Vol. 2 - 1030581 DOC ID: 70337 IMAGED

DATE: 11/16/94 PAGES: 14

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 filter and 3 water.eamples.

and 3 water-sempres.

1, 11, 6, . Vol. 2 - 1030562 DOC ID: 70339 IMAGED

DATE: 11/16/94 PAGES: 16

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 air filter

samples.

1.11. 6. . Vol. 2 - 1030583 DOC ID: 70340 IMAGED

DATE: 11/16/94 PAGES: 17

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum'regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 air filter samples.

1. 11. 6. . Vol. 2 - 1030474 DOC ID: 70221 IMAGED

DATE: 11/17/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water samples.

1, 11, 6. Vol. 2 - 1030475 DOC ID: 70222 IMAGED

DATE: 11/21/94 - PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 10 soil

samples.

1. 11. 6. . Vol. 2 - 1030476 DOCID: 70223 MAGED

DATE: 11/21/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water

sample.

1.11. 6. . Vol. 2 - 1030477 DOCID: 70224 IMAGED

DATE: 11/21/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 air filter

samples.

1. 11. 6. . Vol. 2 - 1030478 DOC ID: 70225 IMAGED

DATE: 11/21/94 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 8 soil

samples.

1. 11. 6. . Vol. 2 - 1030479 DOC ID: 70226 MAGED

DATE: 11/21/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 8 soil

samples.

1, 11, 6, . Vol. 2 - 1030480 DOCID: 70227 IMAGED

DATE: 11/21/94 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 8 soil

samples.

1, 11, 6, . Vol. 2 - 1030481 DOC ID: 70228 IMAGED

DATE: 11/21/94 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 8 soil

samples.

1.11. 6. Vol. 2 - 1030482 DOC ID: 70229 IMAGED

DATE: 12/8/94 PAGES: 24

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

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DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 8 filter, 6 soil and 3 water samples.

1.11. 6. . Vol. 2 - 1030584 DOC ID: 70342 IMAGED

DATE: 12/8/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 soil

samples.

1.11. 6. . Vol. 2 - 1030585 DOC ID: 70343 IMAGED

DATE: 12/8/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 soil

samples.

1. 11. 6. . Vol. 2 - 1030586 DOC ID: 70344 IMAGED

DATE: 12/8/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 filter

and 2 water samples.

1. 11. 6. . Vol. 2 - 1030587 DOC ID: 70345 IMAGED

DATE: 12/8/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water

and 2 soil samples.

1, 11, 6, . Vol. 2 - 1030588 DOC ID: 70346 IMAGED

DATE: 12/8/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

and 3 air filter samples.

1.11. 6. . Vol. 2 - 1030589 DOC ID: 70347 MAGED

DATE: 12/8/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 1 soil and

2 water samples.

1, 11, 6, Vol. 2 - 1030590 DOC ID: 70348 IMAGED

DATE: 12/8/94 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 filter

samples.

1.11. 6. . Vol. 2 - 1030591 DOC ID: 70349 IMAGED

DATE: 12/12/94 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

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DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 air filter

and 12 soil samples.

SUB-HEAD: 1, 11. 6. . Vol. 3 - Sampling Activities

1.11. 6. . Vol. 3 - 1030483 DOC ID: 70230 IMAGED

DATE: 12/16/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 3 - 1030484 DOCID: 70231 IMAGED

DATE: 12/16/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 5 water

samples.

1. 11. 6. . Voi. 3 - 1030485 DOC ID: 70232 IMAGED

DATE: 12/16/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples.

1. 11. 6. . Vol. 3 - 1030486 DOC ID: 70233 IMAGED

DATE: 12/16/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water sample.

1. 11. 6. . Vol. 3 - 1030487 DOC ID: 70234 IMAGED

DATE: 12/16/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 water

sample.

1.11.6. Vol. 3 - 1030488 DOC-D: 70235 MAGED

DATE: 12/16/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1. 11. 6. . Vol. 3 - 1030489 DOC ID: 70238 MAGED

DATE: 12/16/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1.11. 6. . Vol. 3 - 1030490 DOC ID: 70237 MAGED

DATE: 12/20/94 PAGES: 15

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 8 soil and

3 water samples.

1.11.6. Vol. 3 - 1030491 DOC ID: 70238 IMAGED

DATE: 12/20/94 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 4 soil and

4 filter samples.

1. 11. 6. . Vol. 3 - 1030492 DOC ID: 70239 IMAGED

DATE: 12/20/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples.

1.11.6. Vol. 3 - 1030493 DOC ID: 70240 IMAGED

DATE: 12/22/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 4 wipe

samples.

1. 11. 6. . Vol. 3 - 1030494 DOC ID: 70241 IMAGED

DATE: 12/22/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review.

1.11. 6. . Vol. 3 - 1030495 DOC ID: 70242 IMAGED

DATE: 12/27/94 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 9 filter

samples.

1. 11. 6. . Vol. 3 - 1030496 DOC ID: 70243 IMAGED

DATE: 12/27/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, General Chemistry Data Quality Assurance Review of

4 hi-vol filter samples.

1. 11. 6. . Vol. 3 - 1030497 DOC ID: 70244 IMAGED

DATE: 12/27/94 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 1 water

and 3 soil samples.

1.11.6. . Vol. 3 - 1030498 DOC ID: 70245 IMAGED

DATE: 12/27/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

Page

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 soil samples.

1. 11. 6. . Vol. 3 - 1039499 DOC ID: 70246 IMAGED

DATE: 12/27/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 soil

samples.

1. 11. 6. . Vol. 3 - 1030500 DOC ID: 70247 IMAGED

DATE: 12/27/94 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 soil

samples.

1, 11, 6, Vol. 3 - 1030501 DOC ID: 70248 IMAGED

DATE: 12/29/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 5 soil

samples.

1, 11, 6, . Vol. 3 - 1030502 DOC ID: 70249 IMAGED

DATE: 1/9/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, General Chemistry Data Quality Assurance Review of

1 water sample.

1. 11. 6. . Vol. 3 - 1030503 DOC ID: 70250 IMAGED

DATE: 1/9/95 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 4 water samples.

1.11. 6. . Vol. 3 - 1030504 DOC ID: 70251 IMAGED

DATE: 1/10/95 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 4 water

and 2 soil samples.

1.11.6. Vol. 3 - 1030505 DOC ID: 70252 IMAGED

DATE: 1/10/95 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 water samples.

1.11.6. . Vol. 3 - 1030506 DOC ID: 70253 IMAGED

DATE: 1/10/95 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 water samples.

1.11.6. Vol. 3 - 1030592 DOC ID: 70350 IMAGED

DATE: 1/10/95 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

8

DESCRIPTION: Memorandum regarding YDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples.

1. 11. 6. . Vol. 3 - 1030514 DOC ID: 70264 MAGED

DATE: 2/16/95 PAGES: 22

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 20 water

samples.

70265 M'GED 1.11.6. Vol. 3 - 1030515 DOC ID:

DATE: 2/16/95 PAGES: 45

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding-TDD 10-9410-022, Organic Data Quality Assurance Review of 21 water

samples.

1.11.6. Vol.3 - 1030516 DOC ID: 70268 MAGED

DATE: 2/22/95 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 2 water

samples and three charcoal tube samples.

1, 11, 6, . Vol. 3 - 1030507 DOC ID: 70254 MAGED

PAGES: DATE: 2/27/95 21

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 8 soil

samples.

1, 11, 6, . Vol. 3 -1030508 DOC ID: 70255 MAGED

DATE: 2/27/95 PAGES: 22

AUTHOR(S): ADDRESSEE(S):

Jeff Fowlow/Ecology & Environment, Inc. Mark Woodke/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 18 water

samples.

1.11.6. . Vol. 3 - 1030517 DOC ID: 70267 IMAGED

DATE: 2/28/95 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples and 6 soil samples.

1. 11. 6. . Vol. 3 -1030511 DOC ID: 70258 IMAGED

DATE: 3/ 1/95 PAGES: 13

ADDRESSEE(S): AUTHOR(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

9/23/97

Pana

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 5 air filter samples.

1, 11, 6, Vol. 3 - 1030509 DOC ID: 70256 IMAGED

DATE: 3/2/95 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples.

1. 11. 6. . Vol. 3 - 1030518 DOC ID: 70268 IMAGED

DATE: 3/2/95 PAGES: 23

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 20 water

samples.

1.11.6. Vol. 3 - 1030593 DOC ID: 70351 IMAGED

DATE: 3/2/95 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD #10-9410-022B, Organic Data Quality Assurance Review of 2 water

samples.

1.11.6. Vol. 3 - 1030512 DOC ID: 70259 IMAGED

DATE: 3/3/95 PAGES: 41

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 18 water

samples.

1.11.6. Vol.3 - 1030519 DOCID: 70269 MAGED

DATE: 3/3/95 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, inorganic Data Quality Assurance Review of 17 water samples.

1.11.6. . Vol. 3 - 1030510 DOC ID: 70257 IMAGED

DATE: 3/13/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 1 solf

samples.

1.11. 6. . Vol. 3 - 1030606 DOC ID: 70407 IMAGED

DATE: 3/13/95 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 filter and 2 soil samples.

1.11. 6. Vol. 3 - 1030520 DOC ID: 70270 IMAGED

DATE: 3/15/95 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 3 water

samples.

1. 11. 6. . Vol. 3 - 1030521 DOC ID: 70271 IMAGED

DATE: 3/15/95 PAGES: 5

AUTHOR(S): - ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 2 water

samples.

1. 11. 6. . Vol. 3 - 1030524 DOC ID: 70274 IMAGED

DATE: 3/15/95 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 3 water

samples.

1.11.6. . Vol. 3 - 1030513 DOC ID: 70260 IMAGED

DATE: 3/16/95 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Total Petroleum Hydrocarbons Data Quality

Assurance Review.

1. 11. 6. . Vol. 3' - 1030193 DOC ID: 42789 IMAGED

DATE: 3/23/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris Field/EPA

DESCRIPTION: TAT TDD #10-9410-022C.

1. 11. 6. . Vol. 3 - 1030453 DOC ID: 70182 IMAGED

DATE: 3/24/95 PAGES: 21

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Inorganic Data Quality Assurance Review of 18 water

samples.

1. 11. 6. . Vol. 3 - 1030454 DOC ID: 70184 IMAGED

DATE: 3/24/95 PAGES: 41

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-021, Organic Data Quality Assurance Review of 19 water

samples.

1. 11. 6. . Vol. 3 - 1030455 DOC ID: 70185 IMAGED

DATE: 3/24/95 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9412-021, Inorganic Data Quality Assurance Review of 17 water

samples.

1.11.6. Vol. 3 - 1030522 DOC ID: 70272 IMAGED

DATE: 4/26/95 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc.

Jeff Fowlow/Ecology & Environment, Inc.

(2004) BUCHSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX

DESCRIPTION: Memorandum regarding TDD 10-9501-005, Inorganic Data Quality Assurance Review of 3 water.

samples.

Vol. 3 - 1030523 DOC ID: 70273 MAGED 1. 11. 6. .

PAGES: DATE: 4/26/95 6

AUTHOR(S). ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9501-005, Organic Data Quality Assurance Review of 3 water

samples.

1, 11, 6, Vol. 3 - 1030525 DOC ID: 70275 MAGED

DATE: 5/8/95 PAGES: 8

ADDRESSEE(S): AUTHOR(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9410-022, Organic Data Quality Assurance Review of 4,water

samples.

1.11.6. Vol. 3 - 1030526 DOC ID: 70276 MAGED

DATE: 5/8/95 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Mark Woodke/Ecology & Environment, Inc. Jeff Fowlow/Ecology & Environment, Inc.

DESCRIPTION: Memorandum regarding TDD 10-9501-005, Inorganic Data Quality Assurance Review of 4 water

SUB-HEAD: 1.11. 9. . Vol. 1 -**OSC Report**

1, 11, 9, . Vol. 1 - 1030277 DOC ID: 67472 IMAGED

DATE: 8/ 1/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

CET Environmental Services, Inc. EPA

DESCRIPTION: Oversize drawings of Boomsnub demolition plan.

1.11.9. . Vol. 1 - 1037918 DOC ID: 41219 IMAGED

DATE: 4/ 1/95 PAGES: 325

AUTHOR(S): ADDRESSEE(S):

Jeff Fowlow/Ecology & Environment, Inc. Chris D. Fleid/EPA

DESCRIPTION: Final Removal/OSC Report.

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX HEADING: 2. 0. . . REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RVFS) SUB-HEAD: 2. 2. . . Vol. 1 -RVFS Scoping SUB-HEAD: 2. 2. 1. . - Vol. 1 -Correspondence 2. 2. 1. . Vol. 1 - 1037985 DOC ID: 41767 IMAGED PAGES: DATE: 6/5/96 2 AUTHOR(S): ADDRESSEE(S): Deborah J. Yamamoto/EPA Jim Merriam/BOC Gases Deborah J. Yamamoto/EPA Mike Resh/Airco Gases DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting. 2. 2. 1. Vol. 1 - 1037987 DOC ID: 41768 IMAGED DATE: 6/5/96 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Deborah J. Yamamoto/EPA Glen A. Hayman/EA Engineering, Science & Technology DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting. 2. 2. 1. . Vol. 1 - 1037988 DOC ID: 41770 IMAGED DATE: 6/5/96 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Deborah J. Yamamoto/EPA Clark County Public Utilities DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting. 2. 2. 1. . Vol. 1 -1037989 DOC ID: 41771 IMAGED DATE: 6/5/96 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Deborah J. Yamamoto/EPA Samuel Giese/Clark County Public Works DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting. 2. 2. 1. . Vol. 1 - 1037990 DOC ID: 41772 IMAGED DATE: 6/5/96 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Charles S. Polityka/U. S. Department of Interior Deborah J. Yamamoto/EPA Deborah J. Yamamoto/EPA Preston Sleeger/USDOI DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting. 2. 2. 1. . Vol. 1 - 1037991 DOC.ID: 41773 IMAGED DATE: 6/5/96 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Deborah J. Yamamoto/EPA John Ostrowski/City of Vancouver DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting. 1037992 DOC ID: 41774 IMAGED 2. 2. 1. . Vol. 1 -PAGES: DATE: 6/5/96 2 AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Mary Beth Hayes/State of Washington Dept. of

Ecology

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

DOC ID: 41776 IMAGED 2. 2. 1. . Vol. 1 - 1037993

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

U. S. Fish & Wildlife Service Deborah J. Yamamoto/EPA

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1037994 DOCID: 41777 MAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): - ADDRESSEE(S):

Deborah J. Yamamoto/EPA

Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. Vol. 1 - 1037995 DOCID: 41779 IMAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Dan Alexanian/WDOE

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1037996 DOC ID: 41780 IMAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Greg Thomas/Agency for Toxic Substances and

Disease Registry

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1037997 DOC ID: 41782 IMAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA

John Louderback/Southwest Washington Health

District

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1037998 DOC ID: 41783 IMAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Rodney Swanson/Clark County, Washington

DESCRIPTION: Letter inviting participation in an RI/FS acoping meeting.

2. 2. 1. . Vol. 1 - 1037999 DOCID: 41784 MAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Terry Reddish/Clark County Citizens Hazardous

Waste Task Force

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1038000 DOCID: 41785 IMAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA John Frerich/ICF Technology Inc.

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1030001 DOC ID: 41789 IMAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Bob Poss/State of Washington

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

2. 2. 1. . Vol. 1 - 1030002 DOC ID: 41790 MAGED

DATE: 6/5/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA

Douglas Ballou/NE Hazel Delt Neighborhood

Association

DESCRIPTION: Letter inviting participation in an RI/FS scoping meeting.

SUB-HEAD: 2. 2. 2. . Vol. 1 - Meetings/Agenda

2. 2. 2. Vol. 1 - 1030006 DQC ID: 41803 IMAGED

DATE: 6/17/96 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: Agenda for RVFS Scoping meeting.

SUB-HEAD: 2. 3. . . Vol. 1 - Sampling and Analysis Plans

2. 3. . . Vol. 1 - 1037350 DOC ID: 35723 IMAGED

DATE: 4/10/95 PAGES: 40

AUTHOR(S): ADDRESSEE(S):

William Carberr:/Ecology & Environment Chris Field/EPA

DESCRIPTION: Quality Assurance Sampling Plan.

2. 3. . . Vol..1 - 1037351 DOC ID: 35724 IMAGED

DATE: 4/11/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Laura Castrilli/EPA Unknown

DESCRIPTION: Sample Analysis request.

2. 3. . . Vol. 1 - 1037352 DOC ID: 35725 IMAGED

DATE: 4/11/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Donald Matheny/EPA Ann Williamson/EPA

DESCRIPTION: Review of Sampling Plan.

2. 3. . . Vol. 1 - 1037353 DOC ID: 35726 IMAGED

DATE: 6/14/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Bernie Zavala/EPA Unknown

DESCRIPTION: Sample Alteration Checklist.

2. 3. . . Vol. 1 - 1037354 DOC ID: 35727 IMAGED

DATE: 6/15/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Patrick Newlngham/EPA Unknown

DESCRIPTION: Sample Analysis Request.

2. 3. . . Vol. 1 - 1037355 DOC ID: 35728 IMAGED

DATE: 9/28/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Patrick Newingham/EPA Unknown .

DESCRIPTION: Sample Analysis Request.

2. 3. . . Vol. 1 - 1037357 DOC ID: 35731 IMAGED

DATE: 10/2/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Unknown Unknown

DESCRIPTION: Sampling Schedule 10/2/95 - 10/22/95.

2. 3. . . Vol. 1 - 1037356 DOC ID: 35729 IMAGED

DATE: 10/4/95 PAGES: 49

AUTHOR(S): ADDRESSEE(S):

Donald Matheny/EPA _ Ann Williamson/EPA

DESCRIPTION: Review of Quality Assurance Project Plan and recommendation for approval.

SUB-HEAD: 2. 4. . . Vol. 1 - Sampling Data

2. 4. . . Vol. 1 - 1030139 DOC ID: 42613 IMAGED

DATE: PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Unknown Unknown

DESCRIPTION: Boomsnub Water Treatment System Bi-Weekly Checkfist.

2. 4. . . Vol. 1 - 1037368 DOC ID: 35827 IMAGED

DATE: 5/8/95 PAGES: 47

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of BNA results.

2. 4. . . Vol. 1 - 1037369 DOC ID: 35828 IMAGED

DATE: 5/15/95 PAGES: 54

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of BNA results.

2. 4. . . Vol. 1 - 1037370 DOC ID: 35829 IMAGED

DATE: 5/18/95 PAGES: 149

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of BNA results.

2. 4. . . Vol. 1 - 1037371 DOC ID: 35830 IMAGED

DATE: 5/30/95 PAGES: 56

AUTHOR(S): ADDRESSEE(S):

Maricia M. Alforque/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of BNA results.

2. 4. . . Vol. 1 - 1037372 DOC ID: 35831 IMAGED

DATE: 6/ 1/95 PAGES: 49

AUTHOR(S): ADDRESSEE(S):

Maricia M. Alforque/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of BNA results.

2. 4. . . Vol. 1 - 1037373 DOC ID: 35832 IMAGED

DATE: 6/ 1/95 PAGES: 34

AUTHOR(S): ADDRESSEE(S):

Maricia M. Atforque/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of BNA results.

2. 4. . . Vol. 1 - 1037374 DOC ID: 35833 IMAGED

DATE: 6/2/95 PAGES: 36

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of pentachlorophenol results.

2. 4. . . Vol. 1 - 1037375 DOC ID: 35834 IMAGED

DATE: 6/7/95 PAGES: 95

AUTHOR(S):

Gerald H. Dodo/EPA

ADDRESSEE(S):

Ann Williamson/EPA

DESCRIPTION: QA data validation of VOA results.

2. 4. . . Vol. 1 - 1037376 DOC ID: 35835 IMAGED

DATE: 6/7/95 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Maricia M. Alforque/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of metals results.

2. 4. . . Vol. 1 - 1037420 DOC ID: 40256 IMAGED

DATE: 6/8/95 PAGES: 18

AUTHOR(S): ADDRESSEE(S):

Ginna Grepo-Grove/EPA Ann Williamson/EPA

DESCRIPTION: Data validation report for Volatile Organic and Inorganic analyses.

2. 4. . . Vol. 1 - 1037377 DOC ID: 35836 IMAGED

DATE: 6/14/95 PAGES: 41

AUTHOR(S): ADDRESSEE(S):

Randy Cummings/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of Pesticides and Polychlorinated Biphenyls results.

SUB-HEAD: 2. 4. . . Vol. 2 - Sampling Data

2. 4. . . Vol. 2 - 1037378 DOC ID: 40051 IMAGED

DATE: 6/26/95 PAGES: 166

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of VOA results.

2. 4. . . Vol. 2 - 1037379 DOC ID: 40052 IMAGED

DATE: 6/28/95 PAGES: 80

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of VOA results.

2. 4. . . Vol. 2 - 1037380 DOC ID: 40053 IMAGED

DATE: 7/3/95 PAGES: 33

AUTHOR(S): ADDRESSEE(S):

Randy Cummings/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of pesticides and polychlorinated biphenyls.

2.4. Vol. 2 - 1037381 DOC ID: 40054 IMAGED

DATE: 7/26/95 PAGES: 29

AUTHOR(S): ADDRESSEE(S):

Maricia M. Alforque/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of metals results.

2. 4. . . Vol. 2 - 1037382 DOC ID: 40055 IMAGED

DATE: 7/31/95 PAGES: 23

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: QA data validation of pesticides and polychlorinated biphenyls results.

2. 4. . . Vol. 2 - 1037383 DOC ID: 40058 IMAGED DATE: 8/ 7/95 PAGES: 30 ADDRESSEE(S): AUTHOR(S): Gerald H. Dodo/EPA Ann Williamson/EPA DESCRIPTION: QA data validation of BNA results. 2. 4. . . Vol. 2 - 1037384 DOC ID: 40057 IMAGED DATE: 8/9/95 PAGES: 25 ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA Gerald H. Dodo/EPA DESCRIPTION: QA data validation of VOA results. 2. 4. . . Vol. 2 - 1037385 DOC ID: 40058 IMAGED . DATE: 8/29/95 PAGES: 13 ADDRESSEE(S): AUTHOR(S): Gerald H. Dodo/EPA Ann Williamson/EPA DESCRIPTION: QA data validation of pentachlorophenol results. DOC ID: 40059 IMAGED 2. 4. . . Vol. 2 - 1037386 PAGES: DATE: 11/14/95 49 ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA Maricia M. Alforque/EPA DESCRIPTION: QA review of total metals analysis 2. 4. . . Vol. 2 - 1037387 DOC ID: 40060 IMAGED DATE: 11/15/95 PAGES: 36 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Maricia M. Alforque/EPA DESCRIPTION: QA review of total metals analysis. DOC ID: 40061 IMAGED 2. 4. . . Vol. 2 - 1037388 52 DATE: 11/15/95 PAGES: ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA Maricia M. Alforque/EPA DESCRIPTION: QA review of total metals analysis. 2. 4. . . Vol. 2 - 1037403 DOC ID: 40062 MAGED DATE: 11/17/95 PAGES: 31 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Ginna Grepo-Grove/EPA DESCRIPTION: QA review of total metals analysis. 2. 4. . . Vol. 2 - 1037404 DOC ID: 40063 IMAGED DATE: 11/17/95 PAGES: 29 ADDRESSEE(S): AUTHOR(S): Ginna Grepo-Grove/EPA Ann Williamson/EPA DESCRIPTION: QA review of total metals analysis... 2. 4. . . Vol. 2 - 1037405 DOC ID: 40065 IMAGED DATE: 11/17/95 23 PAGES: AUTHOR(S): ADDRESSEE(S): Ginna Grepo-Grove/EPA Deborah J. Yamamoto/EPA DESCRIPTION: QA review of total metals analysis. 2. 4. . . Vol. 2 - 1037506 DOC ID: 40245 IMAGED DATE: 11/28/95 PAGES: 200

ADDRESSEE(S):

AUTHOR(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: Data validation of VOA results.

2. 4. . . Vol. 2 -1037507 DOC ID: 40246 IMAGED

DATE: 12/14/95~ PAGES: 45

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: Data validation of VOA results.

SUB-HEAD: 2. 4. . . Vol. 3 -Sampling Data

2. 4. . . Vol. 3 - 1037609 DOC ID: 40506 IMAGED

DATE: 1/30/96 PAGES: 192

AUTHOR(S): ADDRESSEE(S):

Gerald H. Dodo/EPA Ann Williamson/EPA

DESCRIPTION: Report of data validation of VOA results.

SUB-HEAD: 2. 4. 1. . Vol. 1 -Notice of Improper Sample Submittal

DOC ID: 40069 MAGED 2. 4. 1. . Vol. 1 - 1037389

PAGES: 2 DATE: 4/20/95

ADDRESSEE(S): AUTHOR(S):

Teresa Booth/EPA Ann Williamson/EPA

DESCRIPTION: Notice of improper sample submittal.

DOC ID: 40070 MAGED 2. 4. 1. . Vol. 1 -1037390

DATE: 4/21/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Katie Adams/ICF Technology Incorporated Candy Patterson/EPA

DESCRIPTION: Notice of improper sample submittal.

40071 IMAGED 2. 4. 1. . Vol. 1 -1037391 DOC ID:

DATE: 6/9/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Corrections to Boomsnub sampling event chain of custody forms.

2. 4. 1. . Vol. 1 -DOC ID: 40072 IMAGED 1037392

DATE: 10/6/95 PAGES:

AUTHOR(S): ADDRESSEE(S):

Karen Phillips/City of Vancouver Unknown Unknown/Unknown

DESCRIPTION: City of Vancouver report of Industrial Violation of permitted discharge limits.

2. 4. 1. . Vol. 1 - 1037393 DOC ID: 40073 IMAGED

DATE: 10/11/95 PAGES: 1

ADDRESSEE(S): AUTHOR(S):

Linda Rosa/EPA Ann Williamson/EPA

DESCRIPTION: Notice of improper sample submittal.

2. 4. 1. . Vol. 1 - 1037394 DOC ID: 40074 IMAGED

PAGES: DATE: 10/13/95

ADDRESSEE(S): AUTHOR(S):

Ann Williamson/EPA Linda Rosa/EPA

DESCRIPTION: Notice of improper sample submittal.

45

2. 4. 1. . Vol. 1 - 1037395 DOC ID: 40076 \ IMAGED

DATE: 10/17/95 PAGES:

AUTHOR(S):

Linda Rosa/EPA

ADDRESSEE(S):

Ann Williamson/EPA

DESCRIPTION: Notice of improper sample submittal.

2. 4. 1. . Vol. 1 - 1037396 DOC ID: 40077 IMAGED

DATE: 10/18/95 PAGES:

AUTHOR(S):

ADDRESSEE(S):

Ann Williamson/EPA

DESCRIPTION: Notice of improper sample submittal.

2. 4. 1. . Vol. 1 - 1030709 DOC ID: 70863 IMAGED

DATE: 5/ 8/97 PAGES:

AUTHOR(S): ADDRESSEE(S):

EPA Manchester Lab Deborah J. Yamamoto/EPA

1

1

1

DESCRIPTION: Notice of improper sample submittal.

2. 4. 1. . Vol. 1 - 1030710 DOC ID: 70864 IMAGED

DATE: 5/12/97 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

EPA Manchester Lab Deborah J. Yamamoto/EPA

DESCRIPTION: Notice of improper sample submittal.

2. 4. 1. . Vol. 1 - 1030711 DOC ID: 70865 IMAGED

DATE: 5/13/97 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

EPA Manchester Lab Deborah J. Yamamoto/EPA

DESCRIPTION: Notice of Improper sample submittal.

HEADING: 3. 0. . . RECORD OF DECISION (ROD)

SUB-HEAD: 3. 1. . . Vol. 1 - Record of Decision

3. 1. . . Vol. 1 - 1030936 DOC ID: 91127 DATE: 9/29/97 PAGES: 138

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: Record of Decision for Interim Remedial Action at Boomsnub/Airco Superfund Site.

SUB-HEAD: 3. 2. . . Vol. 1 - Proposed Plan for Interim Action

3. 2. . . Vol. 1 - 1030822 DOC ID: 71628 IMAGED

DATE: 7/28/97 PAGES: 11

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: Proposed Plan for Interim Action at Boomsnub/Airco Superfund Site.

SUB-HEAD: 3. 3. . . Vol. 1 - Memos Relating to ROD

3. 3. . . Vol. 1 - 1030926 DOC ID: 72708 IMAGED

DATE: 9/19/97 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Site File/EPA

DESCRIPTION: Memo to file regarding figures for inclusion in Interim Action ROD.

3. 3. . . Vol. 1 - 1030925 DOC ID: 72709 IMAGED

DATE: 9/19/97 PAGES: 1

AUTHOR(S): ADDRESSEE(S): Deborah J. Yamamoto/EPA Site File/EPA

DESCRIPTION: Memo to file regarding documentation of conversation with Dan Alexanian of Washington Dept. of

Ecology on geology/hydrogeology in the vicinity of Boomsnub.

HEADING: 4. 0. . . AIRCO/(BOC GASES) SITE EVALUATION

SUB-HEAD: 4. 1. . . Vol. 1 - Correspondence

4. 1. . . Vol. 1 - 1030128 DOC ID: 42591 IMAGED

DATE: 11/2/93 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/Washington State Department of Ecology James Merriam/Airco Gases

DESCRIPTION: Notice of potential liability for the release of Hazardous Substances under the Model Toxics Control

. 1 - 1030129 DOC ID: 42592 IMAGED

4. 1. . . Vol. 1 - 1030129 DOC ID: 42592 DATE: 12/20/93 PAGES: 18

AUTHOR(S): ADDRESSEE(S):

Megan White/State of Washington James Merriam/Airco Gases

DESCRIPTION: Cover letter and Enforcement Order/Remedial Action Order # DE93TC-S335 for the remediation of

the VOC contamination.

4. 1. . . Vol. 1 - 1037104 DOC ID: 35258 IMAGED

DATE: 2/ 1/94 PAGES: 63

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science, & Technology Airco Gases

DESCRIPTION: Work Plan for Aquifer Air Sparging/Soil Vapor Extraction Treatability Study for Airco Gases.

4. 1. . . Vol. 1 - 1037105 DOC ID: 35259 IMAGED

DATE: 3/7/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Chris V. Pitre/Pacific Groundwater Group

Tina Masterson/Washington State Department of

Ecology.

DESCRIPTION: Letter regarding review and comments of Draft Work Plan for Soil Vapor Survey.

4. 1. . . Vol. 1 - 1037106 DOC ID: 35260 IMAGED

DATE: 3/15/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Letter regarding final work plan for South Dry Well Sediment Remedial Action.

4. 1. . . Vol. 1 - 1037107 DOC ID: 35261 IMAGED

DATE: 3/16/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE James Merriam/Airco Gases

DESCRIPTION: Letter regarding final work plan approval.

4. 1. . . Vol. 1 - 1037109 DOC ID: 35263 IMAGED

DATE: 3/22/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Chris V. Pitre/Pacific Groundwater Group Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Letter regarding review of Work Plan for Aquifer Air Sparging/Soil Vapor Extraction Treatability

Study for Airco.

4. 1. . . Vol. 1 - 1037110 DOC ID: 35264 IMAGED

DATE: 4/6/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE James Merriam/Airco Gases

DESCRIPTION: Letter regarding review and comments on Work Plan for Aquifer Air Sparging/Soil Vapor Extraction Treatability Study for Airco.

4. 1. . . Vol. 1 - 1037111 DOC ID: 35265 IMAGED

DATE: 4/6/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE James Merriam/Airco Gases

DESCRIPTION: Letter regarding review and approval of the final plan for the Boomsnub VOC Removal System.

2

4. 1. . . Vol. 1 - 1037113 DOC ID: 35267 MAGED

DATE: 4/21/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE Jim Merriam/Airco Gases

DESCRIPTION: Review and comments on the Draft Work Plan for Installation and Sampling of Five Downgradient

Monitoring Wells, Airco Gases.

4. 1: . . Vol. 1 - 1037112 DOC ID: 35266 IMAGED

DATE: 4/26/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Response to Ecology's comments on the work plan for Aquifer Air Sparging/Soil Vapor Extraction

Treatability Study.

4. 1. . . Vol. 1 - 1037114 DOC ID: 35268 IMAGED

DATE: 5/6/94 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Glenn Hayman/EA Engineering, Science, & Technology Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Analytical narrative and lab data sheets for samples collected from south dry well at Airco.

4. 1. . . Vol. 1 - 1037115 DOC ID: 35269 IMAGED

DATE: 5/12/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Glenn Hayman/EA Engineering, Science, & Technology Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Submittal of Revised Final Work Plan for Soil Vapor Survey at Airco.

4. 1. . . Vol. 1 - 1037116 DOC ID: 35270 IMAGED

DATE: 5/17/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE James Merriam/Airco Gases

DESCRIPTION: Letter regarding Airco's response to the work plan for Aquifer Air Sparging/Soil Vapor Extraction

Treatability Study.

4. 1. . . Vol. 1 - 1037117 DOC ID: 35271 IMAGED

DATE: 5/19/94 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Revised work plan for installation and Sampling of Five Downgradient Monitoring Wells.

4. 1. . . Vol. 1 - 1037118 DOC ID: 35272 IMAGED

DATE: 5/20/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE Jim Merriam/Airco Gases

DESCRIPTION: Letter regarding Ecology's approval of Final Work Plan for installation and Sampling of Five Downgradient Monitoring Wells.

4. 1. . . Vol. 1 - 1037121 DOC ID: 35275 IMAGED

DATE: 6/14/94 - PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE Jim Merriam/Airco Gases

DESCRIPTION: Letter approving Final Work Plan, Revision II, for the Soil Vapor Survey.

4. 1. . . Vol. 1 - 1037122 DOC ID: 35276 IMAGED

DATE: 6/28/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Glen A. Hayman/EA Engineering, Science, & Technology Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Response Letter to comments on approved soil vapor work plan.

4. 1. . . Vol. 1 - 1037123 DOC ID: 35277 IMAGED

DATE: 8/17/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Glen A. Hayman/EA Engineering, Science, & Technology Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Work Plan for Additional Subsurface Soil Sampling at BOC Gases.

4. 1. . . Vol. 1 - 1037124 DOC ID: 35278 IMAGED

DATE: 8/17/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Michael S. Resh/Airco Gases Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Cover letter regarding Work Plan for additional subsurface soil sampling.

4. 1. . . Vol. 1 - 1037125 DOC ID: 35279 IMAGED

DATE: 8/29/94 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Final Work Plan for Additional Subsurface Soil Sampling.

4. 1. . . Vol. 1 - 1037126 DOC ID: 35280 IMAGED

DATE: 8/30/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE James Merriam/BOC Gases

DESCRIPTION: Letter regarding WDOE's approval of Final Work Plan for Additional Subsurface Soil Sampling.

4. 1. . . Vol. 1 - 1037129 DOC ID: 35283 IMAGED

DATE: 1/9/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Letter regarding Phase IV Groundwater Investigation Final Report.

4. 1. . . Vol. 1 - 1037130 DOC ID: 35284 IMAGED

DATE: 2/3/95 PAGES: 38

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Scott Inloes/Southwest Air Pollution Control

Technology . Authority

DESCRIPTION: Summary Report, 9/94 - 12/94, Boomsnub VOC Treatment System.

4. 1. . . Vol. 1 - 1030213 DOC ID: 66054 IMAGED

DATE: 3/16/95 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & John Felder/Ecology & Environment, Inc.

Technology

DESCRIPTION: Survey locations for BOC wells and site plan showing well locations.

4. 1. . . Vol. 1 - 1037131 DOC ID: 35285 IMAGED

DATE: 5/12/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Scott inloes/Southwest Air Pollution Control

Technology Authority

DESCRIPTION: Comments on Order of Authorization to Operate, Boomsnub VOC Treatment System.

4. 1. . . Vol. 1 - 1037132 DOC ID: 35286 IMAGED

DATE: 7/31/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Cover letter for Final Phase IV Soil Vapor Survey Report.

4. 1. , . Vol. 1 - 1037133 DOC ID: 35287 IMAGED

DATE: 8/3/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Tina Masterson/Washington State Department of

Technology Ecology

DESCRIPTION: Cover letter for Final Phase IV Subsurface Soil Investigation Report, Vol. I.

4. 1. . . Vol. 1 - 1037135 DOC ID: 35289 IMAGED

DATE: 8/31/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE James Merriam/BOC Gases

DESCRIPTION: Letter advising that reporting requirements stated in Enforcement Order DE 93TC-S335 have been

satisfied.

4. 1. . . Vol. 1 - 1030790 DOC ID: 71266 IMAGED

DATE: 10/20/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Glenn A. Hayman/EA Engineering, Science, & Michael S. Resh/BOC Gases

Technology

DESCRIPTION: Cover letter for Data Summary Report for BOC Gases.

SUB-HEAD: 4. 2. . . Vol. 1 - Reports - Pre-EE/CA

'4. 2. . . Vol. 1 - 1037080 DOC ID: 35234 IMAGED

DATE: 4/ 1/92 PAGES: 109

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology Airco Industrial Gases

DESCRIPTION: Report of Investigation Airco Industrial Gases.

4. 2. . . Vol. 1 - 1037081 DOC ID: 35235 IMAGED

DATE: 10/ 1/92 PAGES: 198

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology Airco Industrial Gases

DESCRIPTION: Phase II Investigation Airco Industrial Gases.

4. 2. . . Vol. 1 - 1037083 DOC ID: 35237 IMAGED

DATE: 7/1/93 PAGES: 300

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology Airco Gases

DESCRIPTION: Phase III Soil and Groundwater Investigation, Airco Gases.

4. 2. . . Vol. 1 - 1037082 DOC ID: 35236 IMAGED

DATE: 8/26/93 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/WDOE Mike Resh/Airco Gases

DESCRIPTION: Letter regarding comments and overall concerns regarding Phase III report.

SUB-HEAD: 4. 2. . . Vol. 2 - Reports - Pre-EE/CA

4. 2. Vol. 2 - 1037084 DOC ID: 35238 IMAGED

DATE: 3/25/94 PAGES: 33

AUTHOR(S): ADDRESSEE(S):

Glen A. Hayman/EA Engineering, Science & Technology Tina Masterson/Washington State Department of

Ecology

DESCRIPTION: Report: Plan for VOC Removal System Under Enforcement Order.

4. 2. . . Vol. 2 - 1037085 DOC ID: 35239 IMAGED

DATE: 8/ 1/94 PAGES: 23

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology BOC Gases

DESCRIPTION: Report: Groundwater Monitoring Results May 1994, Vol. I of IV, Letter, Tables & Figures.

4. 2. . . Vol. 2 - 1037086 DOC ID: 35240 IMAGED

DATE: 8/ 1/94 PAGES: 157

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology BOC Gases

DESCRIPTION: Report: Groundwater Monitoring Results May 1994, Vol. II of IV, Laboratory Reports.

4. 2. . . Vol. 2 - 1037087 DOC ID: 35241 IMAGED

DATE: 8/ 1/94 PAGES: 347

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology BOC Gases

DESCRIPTION: Report: Groundwater Monitoring Results May 1994, Vol. III of IV, Laboratory Reports.

SUB-HEAD: 4. 2. . . Vol. 3 - Reports - Pre-EE/CA

4. 2. . . Vol. 3 - 1037088 DOC ID: 35242 IMAGED

DATE: 8/ 1/94 PAGES: 365

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science & Technology BOC Gases

DESCRIPTION: Report: Groundwater Monitoring Results May 1994, Vol. IV of IV, Laboratory Reports.

SUB-HEAD: 4. 2. . . Vol. 4 - Reports - Pre-EE/CA

4. 2. . . Vol. 4 - 1037091 DOC ID: 35245 IMAGED

DATE: 12/1/94 PAGES: 113

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science, & Technology BOC Gases
DESCRIPTION: Report: Phase IV Groundwater Investigation Final Report; Vol. I

4. 2. . . Vol. 4 - 1037092 DOC ID: 35246 IMAGED

DATE: 12/1/94

PAGES: 354

AUTHOR(S):

BOC Gases

EA Engineering, Science, & Technology

ADDRESSEE(S):

ADDRESSEE(S):

DESCRIPTION: Report-Phase IV Groundwater Investigation Final Report; Vol. II, Appendix B.

SUB-HEAD: 4. 2. . . Vol. 5 -Reports - Pre-EE/CA

4. 2. . . Vol. 5 - 1037093 DOC ID: 35247 IMAGED

PAGES: DATE: 12/1/94 241

AUTHOR(S):

EA Engineering, Science, & Technology **BOC Gases**

DESCRIPTION: Report: Phase IV Groundwater Investigation Final Report; Vol. III, Appendix B, contd.

4. 2. . . Vol. 5 -35248 IMAGED 1037094 DOC ID:

DATE: 7/1/95 PAGES: 116

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science, & Technology **BOC Gases**

DESCRIPTION: Report Phase IV Soll Vapor Survey Report.

4. 2. . . Vol. 5 -1030712 DOC ID: 70897 MAGED

PAGES: DATE: 7/ 1/95 18

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science, and Technology **BOC Gases**

DESCRIPTION: Report: Phase IV South Dry Well Remedial Action, Vol. I.

4. 2. . . Vol. 5 -1037095 DOC ID: 35249 IMAGED

DATE: 8/ 1/95 PAGES: 57

ADDRESSEE(S): AUTHOR(S):

EA Engineering, Science, & Technology **BOC Gases**

DESCRIPTION: Report: Phase IV Subsurface Soil Investigation Report. Vol. I.

SUB-HEAD: 4, 2, . . Vol. 6 -Reports - Pre-EE/CA

4. 2. . . Vol. 6 - 1037096 DOC ID: 35250 MAGED

DATE: 10/1/95 PAGES: 105

ADDRESSEE(S): AUTHOR(S):

EA Engineering, Science, & Technology **BOC Gases**

DESCRIPTION: Final Boomsnub Air Stripper Operation and Maintenance Plan.

4. 2. . . · Vol. 6 -DOC ID: 71265 IMAGED 1030789

PAGES: DATE: 10/ 1/95 128

AUTHOR(S): ADDRESSEE(S):

EA Engineering, Science, and Technology **BOC Gases**

DESCRIPTION: Environmental Investigation Data Report.

4. 2. . . Vol. 6 -1030019 DOC ID: 41818 IMAGED

DATE: 3/5/96 PAGES: 130

AUTHOR(S): ADDRESSEE(S):

Glen A. Hayman/EA Engineering, Science & Technology Scott Inloes/Southwest Air Pollution Control

DESCRIPTION: Report: Boomsnub VOC Treatment System, 1995 Summary Report.

41819 IMAGED 4. 2. . . Vol. 6 -DOC ID: 1030020

PAGES: DATE: 5/16/96 40

AUTHOR(S): ADDRESSEE(S):

Glen A. Hayman/EA Engineering, Science & Technology Mike Resh/Airco Gases

DESCRIPTION: Summary of April-May 1995 Groundwater Monitoring Data, BOC Gases.

4. 2. . . Vol. 6 - 1030242 DOC ID: 67236 MAGED

DATE: 10/17/96 PAGES: 4

ADDRESSEE(S): AUTHOR(S):

Glenn A. Hayman/EA Engineering, Science, & Michael S. Resh/Airco Gases

Technology

DESCRIPTION: Summary of Boomsnub air stripper temporary leak detection and containment measures

construction oversight.

HEADING: 6. 0. . REMEDIAL ACTION

SUB-HEAD: 6. 1. . . Vol. 1 - Correspondence

6. 1. . . Vol. 1 - 1037406 DOC ID: 40248 IMAGED

DATE: 7/1/94 PAGES: 2

AUTHOR(S):

Thor Cutter/EPA

Bub Loiselle/EPA

Bub Loiselle/EPA

DESCRIPTION: Requirements for city discharge permit.

6. 1. . . Vol. 1 - 1037407 DOC ID: 40249 IMAGED

DATE: 7/13/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Thor Cutler/EPA Bub Loiselle/EPA

DESCRIPTION: Follow up letter to Thomas Boyer at City of Vancouver.

6. 1. . . Vol. 1 - 1037408 DOC ID: 40250 IMAGED

DATE: 7/20/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Bub Loiselle/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: Follow up letter to Thomas Boyer at City of Vancouver.

6. 1. . . Vol. 1 - 1037409 DOC ID: 40251 IMAGED

DATE: 8/16/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Bub Loiselle/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: Letter requesting waiver of city's development charge.

6. 1. . . Vol. 1 - 1037410 DOC ID: 40252 IMAGED

DATE: 9/2/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Bub Loiselle/EPA Victor Ehrlich/City of Vancouver

DESCRIPTION: Letter requesting waiver of city's system charge and user fee.

6. 1. . . Vol. 1 - 1037411 DOC ID: 40253 IMAGED

DATE: 8/25/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: Enclosure letter for extended data packages.

6. 1. . Vol. 1 - 1037932 DOC ID: 41558 IMAGED

DATE: 3/18/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: Data package cover letter.

6. 1. . . Vol. 1 - 1030295 DOC ID: 68009 IMAGED

DATE: 8/7/98 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Bernie Zavala/EPA Deborah J. Yarnamoto/EPA

DESCRIPTION: Memorandum regarding ground water flow direction for Boomsnub/BOC tested in March and

October 1995 and May 1996.

6. 1. . . Vol. 1 - 1030296 DOC ID: 68010 IMAGED

DATE: 8/30/96 PAGES: 2

AUTHOR(S):

John P. Frerich/ICF Technology Inc.

ADDRESSEE(S):

Bernie Zavala/EPA

Pana

DESCRIPTION: Memo regarding Installation of wells at Boomsnub.

6. 1. . . Vol. 1 - 1030198 DOC ID: 66031 IMAGED

DATE: 9/17/96 PAGES: 2

AUTHOR(S): - ADDRESSEE(S):

Deborah J. Yamamoto/EPA

Julie Rose/Bonnevitle Power Administration

DESCRIPTION: Letter regarding installation of monitoring wells on BPA property.

6. 1. . . Vol. 1 - 1030199 DOC ID: 66033 IMAGED

DATE: 9/17/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA

Lowell Weiss/Clark County Public Works

DESCRIPTION: Letter regarding installation of monitoring wells near Clark County's road right-of-way.

6. 1. . . Vol. 1 - 1030675 DOC ID: 70677 IMAGED

DATE: 3/7/97 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dailey/EPA

DESCRIPTION: Corrective Action Memorandum for Field Sampling Activities.

6. 1. . . Vol. 1 - 1030676 DOC ID: 70678 IMAGED

DATE: 3/27/97 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dailey/EPA

DESCRIPTION: Corrective Actions for the O & M of the Groundwater Treatment System.

6. 1. . . Vol. 1 - 1030671 DOC ID: 70674 IMAGED

DATE: 4/15/97 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc. Deborah J. Yamamoto/EPA

DESCRIPTION: Letter regarding audit of operations and maintenance activities.

6. 1. . . Vol. 1 - 1030674 DOC ID: 70676 IMAGED

DATE: 4/22/97 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Anne Dailey/EPA Deborah J. Yamamoto/EPA

DESCRIPTION: Memo regarding conversation with John French.

6. 1. . . Vol. 1 - 1030700 DOC ID: 70779 IMAGED

DATE: 4/30/97 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Melody Walker/EPA Anne Dailey/EPA

DESCRIPTION: EPA Region 10 RAP Report.

DATE: 5/29/97

6. 1. . . Vol. 1 - 1030673 DOC ID: 70675 IMAGED

DATE: 5/5/97 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Anne Dailey/EPA Deborah J. Yamamoto/EPA

DESCRIPTION: Memo regarding conversation with John Frerich.

6. 1. . . Vol. 1 - 1030755 DOC ID: 71063 IMAGED

AUTHOR(S): ADDRESSEE(S):

PAGES:

Anne Dailey/EPA Polly M. Quick/ICF Technology

9

DESCRIPTION: Technical Direction Memorandum.

58

6. 1. . . Vol. 1 - 1030801 DOC ID: 71296 IMAGED

DATE: 6/27/97 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Deborah J. Yamamoto/EPA

DESCRIPTION: Technical memorandum evaluating the estimated pumping duration to obtain groundwater cleanup

levels for chromium.

6. 1. . . Vol. 1 - 1030802 DOC ID: 71297 IMAGED

DATE: 6/27/97 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

John P, Frerich/ICF Technology Inc.

Deborah J. Yamamoto/EPA

DESCRIPTION: Cost estimate for expanding the extraction system and repairing or replacing system components.

6. 1. . . Vol. 1 - 1030804 DOC ID: 71310 IMAGED

DATE: 7/1/97 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Site File/EPA

DESCRIPTION: Memorandum regarding cost estimate for Operation and Maintenance and Improvements to the

Boomsnub/Airco Extraction/Treatment System.

SUB-HEAD: 6. 2. . . Vol. 1 - Sampling Data

6. 2. . . Vol. 1 - 1037419 DOC ID: 40254 IMAGED

DATE: 5/26/95 PAGES: 79

AUTHOR(S): ADDRESSEE(S):

Andrew J. Riddell/Sound Analytical Services Peter Battuello/ICF Kaiser Engineers

DESCRIPTION: Sample analysis package.

6. 2. . . Vol. 1 - 1037418 DOC ID: 40255 IMAGED

DATE: 6/6/95 PAGES: 422

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

SUB-HEAD: 6. 2. . . Vol. 2 - Sampling Data

6. 2. . . Vol. 2 - 1037509 DOC ID: 40259 IMAGED

DATE: 6/16/95 PAGES: 202

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 2 - 1037508 DOC ID: 40261 IMAGED

DATE: 6/29/95 PAGES: 361

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample Analysis results.

6. 2. . . Vol. 2 - 1037510 DOC ID: 40262 IMAGED

DATE: 7/19/95 PAGES: 218

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

Inc.

DESCRIPTION: Sample analysis results.

SUB-HEAD: 6. 2. . . Vol. 3 - Sampling Data

6. 2. . . Vol. 3 - 1037513 DOC ID: 40274 IMAGED

DATE: 8/7/95 PAGES: 413

AUTHOR(S): ADDRESSEE(S):

Unknown Kenneth V. Jennings/ICF Kaiser Engineers Group,

Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 3 - 1037514 DOC ID: 40275 IMAGED

DATE: 8/24/95 PAGES: 232

AUTHOR(S): ADDRESSEE(S):

Unknown Kenneth V. Jennings/ICF Kaiser Engineers Group.

inc.

DESCRIPTION: Sample analysis results.

SUB-HEAD: 6. 2. . . Vol. 4 - Sampling Data

6. 2. . . Vol. 4 - 1030632 DOC ID: 70607 IMAGED

DATE: 9/14/95 PAGES: 423

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 4 - 1030635 DOC ID: 70609 IMAGED

DATE: 9/21/95 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Sound Analytical Services Wendy MCLeod/OnSite Environmental, Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 4 - 1030636 DOC ID: 70610 IMAGED

DATE: 9/28/95 PAGES: 268

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kalser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 4 - 1030637 DOC ID: 70613 MAGED

DATE: 10/3/95 PAGES: 374

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kalser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

SUB-HEAD: 6. 2. . . Vol. 5 - Sampling Data

6. 2. . . Vol. 5 - 1030638 DOC ID: 70615 IMAGED

DATE: 10/12/95 PAGES: 186

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 5 - 1030639 DOC ID: 70616 IMAGED

DATE: 11/3/95 PAGES: 187

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kalser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 5 - 1030640 DOC ID: 70617 IMAGED

DATE: 11/20/95 PAGES: 403

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 5 - 1030641 DOC ID: 70619 IMAGED

DATE: 11/30/95 PAGES: 199

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 5 - 1030643 DOC ID: 70620 IMAGED

DATE: 12/7/95 PAGES: 228

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6, 2, . . Vol. 5 - 1030644 DOC ID: 70621 IMAGED

DATE: 12/14/95 PAGES: 214

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

inc.

DESCRIPTION: Sample analysis results.

SUB-HEAD: 6. 2. . . Vol. 6 - Sampling Data

6. 2. . . Vol. 6 - 1030645 DOC ID: 70622 IMAGED

DATE: 12/15/95 PAGES: 556

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 6 - 1030646 DOC ID: 70623 IMAGED

DATE: 12/29/95 PAGES: 185

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 6 - 1030648 DOC ID: 70626 IMAGED

DATE: 1/4/96 PAGES: ~296

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

Inc.

DESCRIPTION: Sample analysis results.

6, 2, . . Vol. 6' - 1030649 DOC ID: 70627 IMAGED

DATE: 1/5/96 PAGES: 12

AUTHOR(S): - ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

Inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 6 - 1030650 DOC ID: 70628 IMAGED

DATE: 1/10/96 PAGES: 182

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

inc.

DESCRIPTION: Sample analysis results.

SUB-HEAD: 6. 2. . . Vol. 7 - Sampling Data

6. 2. . . Vol. 7 - 1030651 DOC ID: 70629 IMAGED

DATE: 1/16/96 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 7 - 1030652 DOC ID: 70630 IMAGED

DATE: 1/23/96 PAGES: 124

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group.

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 7 - 1030653 DOC ID: 70831 IMAGED

DATE: 1/30/96 PAGES: 287

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 7 - 1030654 DOC ID: 70632 IMAGED

DATE: 2/15/96 PAGES: 185

AUTHOR(S): ADDRESSEE(S):

Wendy MCLeod/OnSite Environmental, Inc. Kenneth V. Jennings/ICF Kaiser Engineers Group,

inc.

DESCRIPTION: Sample analysis results.

6. 2. . . Vol. 7 - 1030200 DOC ID: 66034 IMAGED

DATE: 8/6/96 PAGES: 303

AUTHOR(S): ADDRESSEE(S):

Ginna Grepo-Grove/EPA Ann Williamson/EPA

DESCRIPTION: Data Validation Report for Volatile Organic Analysis of Samples from Boomsnub.

6. 2. . . Vol. 7 - 1030201 DOC ID: 66039 IMAGED

DATE: 8/8/96 PAGES: 78

AUTHOR(S): ADDRESSEE(S):

Ginna Grepo-Grove/EPA Ann Williamson/EPA

DESCRIPTION: Data Validation Report for Inorganic Analysis of Samples from Boomsnub.

6. 2. . . Vol. 7 - 1030341 DOC ID: 68239 IMAGED

DATE: 12/23/96 PAGES: 96

AUTHOR(S): - ADDRESSEE(S):

John P. Frerich/CF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: Formatting of May 1996 Ground Water Data.

6. 2. . . Vol. 7 - 1030342 DOC ID: 68251 IMAGED

DATE: 12/23/96 PAGES: 287

AUTHOR(S): ADDRESSEE(S):

Ginna Grepo-Grove/EPA Ann Williamson/EPA

DESCRIPTION: Data Validation Report for Volatile Organic Analysis.

SUB-HEAD: 6. 2. 1. . Vol. 1 - Sampling & Analysis Plans

6. 2. 1. . Vol. 1 - 1037504 DOC ID: 40237 IMAGED

DATE: 1/27/95 PAGES: 69

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Quality Assurance Sampling Plan (QASP) for groundwater treatment operation.

6. 2. 1. . Vol. 1 - 1037505 DOC ID: 40240 IMAGED

DATE: 5/25/95 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: Review of Quality Assurance Sampling Plan (QASP) for groundwater treatment operation.

6. 2. 1. . Vol. 1 - 1037516 DOC ID: 40294 IMAGED

DATE: 1/1/96 PAGES: 34

AUTHOR(S): ADDRESSEE(S):

Bernie Zavala/EPA Deborah J. Yamamoto/EPA

DESCRIPTION: Quality Assurance Sampling Plan - Groundwater Sampling through Temporary Wells.

6. 2. 1. . Vol. 1 - 1030096 DOC ID: 41963 IMAGED

DATE: 1/31/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Donald Matheny/EPA Ann Williamson/EPA

DESCRIPTION: Memo regarding review of Quality Assurance Sampling Plan.

6. 2. 1. . Vol. 1 - 1030097 DOC ID: 41964 IMAGED

DATE: 2/5/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Donald Matheny/EPA Ann Williamson/EPA

DESCRIPTION: Memo regarding review of Quality Assurance Sampling Plan.

6. 2. 1. . Vol. 1 - 1037981 DOC ID: 41729 IMAGED

DATE: 5/30/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA John French/ICF Technology Inc.

DESCRIPTION: Transmittal of Quality Assurance Sampling Plan.

6. 2. 1. Vol. 1 - 1037976 DOC ID: 41724 IMAGED

DATE: 6/4/96 PAGES: 21

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: Quality Assurance Sampling Plan - Groundwater Sampling of Ion Exchange/Air Stripper Treatment System.

6. 2. 1. . Vol. 1 - 1030259

DOC ID: 67301 IMAGED

DATE: 10/25/96 -

PAGES: 15

AUTHOR(S):

ADDRESSEE(S):

Bemie Zavala/EPA

Ann Williamson/EPA

DESCRIPTION: Quality Assurance Sampling Plan Addendum for Boomsnub/BOC Gases Ground Water Sampling

Event October 21-25, 1996.

1030608 6. 2. 1. . Vol. 1 -

DOC ID:

70417 MAGED

DATE: 4/8/97

PAGES:

AUTHOR(S):

ADDRESSEE(S):

Bernie Zavala/EPA

Deborah J. Yamamoto/EPA

DESCRIPTION: Quality Assurance Sampling Plan Addendum for Boomsnub/BOC Gases Ground Water Sampling

12

Event Spring - Week of May 4, 1997.

Monthly Monitoring Reports SUB-HEAD: 6. 2. 2. . Vol. 1 -

6. 2. 2. . Vol. 1 - 1037517

DOC ID:

40295 MAGED

DATE: 4/10/95

PAGES:

117

AUTHOR(S):

ADDRESSEE(S): Chris D. Field/EPA

William L. Carberry/Ecology & Environment, Inc.

DESCRIPTION: 1/95 Monthly Monitoring Report.

NOTE: A/R includes only 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 -

DOC ID: 40296 IMAGED 123

DATE: 5/12/95

PAGES:

AUTHOR(S):

William L. Carberry/Ecology & Environment, Inc.

1037518

ADDRESSEE(S): Chris D. Field/EPA

DESCRIPTION: 2/95 Monthly Monitoring Report.

NOTE: A/R includes first 9 pages, up to Appendix A.

6. 2. 2. . Vol. 1 -

1037519 DOC ID:

40297 IMAGED

DATE: 5/19/95

PAGES:

113

AUTHOR(S):

William L. Carberry/Ecology & Environment, Inc.

ADDRESSEE(S):

Chris D. Field/EPA

DESCRIPTION: 3/95 Monthly Monitoring Report.

Note: A/R includes only first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 -

1037520

DOCID: 40298 IMAGED

21

DATE: 6/ 9/95

PAGES:

ADDRESSEE(S):

AUTHOR(S):

Chris D. Field/EPA

William L. Carberry/Ecology & Environment, Inc. DESCRIPTION: 4/95 Monthly Monitoring Report.

NOTE: A/R includes only first 4 pages, up to Appendix A.

6. 2. 2. . Vol. 1 -

1037521

DOCID: 40299 IMAGED

DATE: 6/29/95

PAGES:

143

AUTHOR(S):

ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc.

Chrls D. Fleld/EPA

DESCRIPTION: 5/95 Monthly Monitoring Report.

NOTE: A/R includes only first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037522 DOC ID: 40300 IMAGED

DATE: 7/17/95 PAGES: 106

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: 6/95 Monthly Monitoring Report.

NOTE: A/R includes only first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037523 DOC ID: 40301 IMAGED

DATE: 8/25/95 PAGES: 164

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 7/95 Monthly Monitoring Report.

NOTE: A/R includes first 6 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037524 DOC ID: 40302 IMAGED

DATE: 9/27/95 PAGES: 170

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 8/95 Monthly Monitoring Report.

NOTE: A/R includes first 6 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037525 DOC ID: 40303 IMAGED

DATE: 10/30/95 PAGES: 159

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 9/95 Monthly Monitoring Report.

NOTE: A/R includes first 7 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037526 DOC ID: 40304 IMAGED

DATE: 1/10/96 PAGES: 156

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 11/95 Monthly Monitoring Report.

NOTE: A/R includes first 7 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037921 DOC ID: 40787 IMAGED

DATE: 2/9/96 PAGES: 54

AUTHOR(S): ADDRESSEE(S):

Kenneth Jennings/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 12/95 Monthly Extraction Well and System Monitoring Report and cover letter.

NOTE: A/R includes first 6 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037850 DOC ID: 40788 IMAGED

DATE: 2/19/96 PAGES: 140

AUTHOR(S): ADDRESSEE(S):

Kenneth Jennings/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 1/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes only first 8 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037851 DOC ID: 40789 IMAGED

DATE: 3/6/96 PAGES: 102

AUTHOR(S): ADDRESSEE(S):

Kenneth Jennings/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 10/95 Monthly Extraction Well and System Monitoring Report and cover letter.

NOTE: A/R includes first 6 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037852 DOC ID: 40850 IMAGED

DATE: 3/27/96 PAGES: 153

AUTHOR(S): ADDRESSEE(S):

Kenneth Jennings/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 2/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 7 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1037844 DOC ID: 41046 IMAGED

DATE: 4/23/96 PAGES: 140

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 3/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 7 pages, up to Apprendix A.

6. 2. 2. . Vol. 1 - 1037925 DOC ID: 41401 IMAGED

DATE: 5/20/96 PAGES: 136

AUTHOR(S): ADDRESSEE(S):

John French/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 4/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 7 pagew, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030148 DOCID: 42744 IMAGED

DATE: 8/ 1/96 PAGES: 109

AUTHOR(S): ADDRESSEE(S):

John French/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 6/96 Extraction Well and System Monitoring Report.

NOTE: A/R includes first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030149 DOCID: 42745 IMAGED

DATE: 8/21/96 PAGES: 190

AUTHOR(S): ADDRESSEE(S):

John Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 7/96 Extraction Well and System Monitoring Report.

NOTE: A/R includes first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030261 DOCID: 67303 IMAGED

DATE: 9/23/96 PAGES: 144

AUTHOR(S): ADDRESSEE(S):

John Frerich/ICF Technology Inc. Ann Williamson/EPA

DESCRIPTION: 8/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 8 pages, up to Appendix A.

Page

6. 2. 2. . Vol. 1 - 1030262 DOC ID: 67304 IMAGED

DATE: 9/26/96 PAGES: 117

AUTHOR(S): ADDRESSEE(S):

John Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 5/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030260 DOC ID: 67302 IMAGED

DATE: 10/31/96 PAGES: 148

AUTHOR(S): ADDRESSEE(S):

John French/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 9/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 6 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030298 DOC ID: 68011 IMAGED

DATE: 11/25/96 PAGES: 107

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 10/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 5 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030299 DOC ID: 68012 IMAGED

DATE: 12/18/96 PAGES: 57

AUTHOR(S): ADDRESSEE(S):

John P. French/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 11/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 5 pages, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030300 DOC ID: 68013 IMAGED

DATE: 1/17/97 PAGES: 209

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 12/96 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 10 pages, up to Appendix A.

6: 2. 2. . Vol. 1 - 1030625 DOC ID: 70457 IMAGED

DATE: 3/27/97 PAGES: 129

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dailey/EPA

DESCRIPTION: 2/97 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 9 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030626 DOC ID: 70465 IMAGED

DATE: 4/16/97 PAGES: 140

AUTHOR(S): ADDRESSEE(S):

John P. Frenich/ICF Technology Inc. Anne Dailey/EPA

DESCRIPTION: 3/97 Monthly Extraction Well and System Monitoring Report.

NOTE: A/R includes first 9 pages only, up to Appendix A.

6. 2. 2. . Vol. 1 - 1030748 DOC ID: 71056 MAGED DATE: 5/19/97 PAGES: 129 AUTHOR(S): ADDRESSEE(S): John P. Frerich/ICF Technology Inc. Anne Dailey/EPA DESCRIPTION: 4/97 Monthly Extraction Well and System Monitoring Report. NOTE: A/R includes first 8 pages only, up to Appendix A. DOC ID: 72096 6. 2. 2. . Vol. 1 - 1030867 DATE: 7/21/97 PAGES: 133 ADDRESSEE(S): AUTHOR(S): John P. Frerich/ICF Technology Inc. Anne Dailey/EPA DESCRIPTION: 6/97 Monthly Extraction Well and System Monitoring Report. NOTE: A/R includes only first 7 pages, up to Appendix A. 6. 2. 2. . Vol. 1 - 1030887 DOC ID: 72267 DATE: 8/21/97 PAGES: 132 ADDRESSEE(S): AUTHOR(S): John P. Frerich/ICF Technology Inc. Anne Dailey/EPA DESCRIPTION: 7/97 Monthly Extraction Well and System Monitoring Report. NOTE: A/R includes first 8 pages, up to Appendix A. SUB-HEAD: 6. 2. 3. . Vol. 1 -**QA Completeness Check** DOC ID: 72078 MAGED 6. 2. 3. . Vol. 1 - 1030862 DATE: 6/20/97 PAGES: 280 ADDRESSEE(S): AUTHOR(S): Ginna Grepo-Grove/EPA Deborah J. Yamamoto/EPA DESCRIPTION: Data validation report for Volatile Organic Analysis (VOA) of Samples from Boomsnub. 6. 2. 3. . Vol. 1 - 1030863 DOC ID: 72085 IMAGED DATE: 6/24/97 PAGES: 14 AUTHOR(S): ADDRESSEE(S): Donald Mathemy/EPA Deborah J. Yamamoto/EPA DESCRIPTION: Data Validation for Boomsnub Service Request #K9703043, Metals Analysis. DOC ID: 72086 IMAGED 6. 2. 3. . Vol. 1 -1030864 DATE: 6/24/97 PAGES: 12 AUTHOR(S): ADDRESSEE(S): Donald Matheny/EPA Deborah J. Yamamoto/EPA DESCRIPTION: Data Validation for Boomsnub Service Request #K9703064, Metals Analysis. 6. 2. 3. . Vol. 1 - 1030865 DOC ID: 72087 IMAGED DATE: 6/24/97 PAGES: 27 AUTHOR(S): ADDRESSEE(S): Donald Matheny/EPA Deborah J. Yamamoto/EPA DESCRIPTION: Data Validation for Boomsnub Service Request #K9703142, Metals Analysis. 6. 2. 3. . Vol. 1 - 1030868 DOC ID: 72088 IMAGED DATE: 6/24/97 PAGES: 27 AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: Data Validation for Boomsnub Service Request #K9703159, Metals Analysis.

Donald Matheny/EPA

Deborah J. Yamamoto/EPA

6. 2. 4. . Vol. 1 - 1037862 DOC ID: 41097 IMAGED

DATE: 2/29/96 PAGES: 685

AUTHOR(S):

Ginna Grepo-Grove/EPA

ADDRESSEE(S):

Ann Williamson/EPA

DESCRIPTION: Data validation Report for Volatile Organic and Total Chromium Analysis of Samples.

SUB-HEAD: 6. 3. . . Vol. 1 - Step Drawdown Test

€. 3. . . Vol. 1 - 1037530 DOC ID: 40335 IMAGED

DATE: 9/21/95 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: Transmittal of data from step drawdown test.

SUB-HEAD: 6. 4. . . Vol. 1 - Operation and Maintenance

6. 4. . . Vol. 1 - 1033975 DOC ID: 40338 IMAGED

DATE: 4/5/95 PAGES: 221

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: Operations and Maintenance Manual for groundwater extraction and treatment system.

SUB-HEAD: 6. 4. 1. . Vol. 1 - Systems Operation Report

6. 4. 1. . Vol. 1 - 1037532 DOC ID: 40338 IMAGED

DATE: 3/24/95 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: 2/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037533 DOC ID: 40339 IMAGED

DATE: 4/11/95 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D. Field/EPA

DESCRIPTION: 3/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037534 DOC ID: 40340 IMAGED

DATE: 5/12/95 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chris D: Field/EPA

DESCRIPTION: 4/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037535 DOC ID: 40341 IMAGED

DATE: 6/ 9/95 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 5/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037536 DOC ID: 40342 IMAGED

DATE: 7/10/95 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc.

Ann Williamson/EPA

DESCRIPTION: 6/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037537 DOC ID: 40343 IMAGED PAGES: 4

AUTHOR(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc.

Ann Williamson/EPA

DESCRIPTION: 7/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037538 DOC ID: 40344 IMAGED DATE: 9/11/95 PAGES: 7

AUTHOR(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc.

Ann Williamson/EPA

DESCRIPTION: 8/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037539 DOC ID: 40345 IMAGED

DATE: 10/30/95 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 9/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037540 DOC ID: 40348 IMAGED

DATE: 11/7/95 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kalser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 10/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037541 DOC ID: 40347 IMAGED

DATE: 1/10/96 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 11/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037542 DOCID: 40348 MAGED

DATE: 1/16/96 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: 12/95 System Operation Report.

6. 4. 1. . Vol. 1 - 1037853 DOC ID: 40851 IMAGED

DATE: 2/9/96 PAGES: 14

AUTHOR(S): ADDRESSEE(S):

Kenneth Jennings/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 1/96 System Operation Report.

6. 4. 1. . Vol. 1 - 1037854 DOC ID: 40852 IMAGED

DATE: 3/11/96 PAGES: 12

AUTHOR(S): ADDRESSEE(S):

Kenneth Jennings/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: 2/96 System Operation Report.

6. 4. 1. . Vol. 1 - 1037915 DOCID: 41212 IMAGED

DATE: 4/11/96 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Technology Incorporated Ann Williamson/EPA

DESCRIPTION: 3/96 System Operation Report.

6. 4. 1. . Vol. 1 - 1037916 DOC ID: 41213 IMAGED

DATE: 5/ 9/96 PAGES: 10

AUTHOR(S): ADDRESSEE(S):

Page

Ann Williamson/EPA Kenneth V. Jennings/ICF Technology Incorporated DESCRIPTION: 4/96 System Operation Report.

6. 4. 1. . Vol. 1 - 1030018 DOC ID: 41815 IMAGED

DATE: 6/10/96 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

John Frerich/ICF Technology Inc. Ann Williamson/EPA

DESCRIPTION: 5/96 System Operation Report.

1030656 6. 4. 1. . Vol. 1 -DOC ID: 70646 IMAGED

DATE: 7/12/98 PAGES: 6

ADDRESSEE(S): AUTHOR(S):

John P. Frerich/ICF Technology Inc. Ann Williamson/EPA

DESCRIPTION: 6/96 System Operation Report.

6. 4.- i. Vol. 1 -1030657 DOC ID: 70647 **IMAGED**

DATE: 8/9/96 PAGES: 6

ADDRESSEE(S): AUTHOR(S):

Ann Williamson/EPA John P. Frerich/ICF Technology Inc.

DESCRIPTION: 7/96 System Operation Report.

1030658 DOC ID: 70648 IMAGED 6. 4. 1. . Vol. 1 -

PAGES: DATE: 9/10/96

ADDRESSEE(S): AUTHOR(S):

John P. Frerich/ICF Technology Inc. Ann Williamson/EPA

DESCRIPTION: 8/96 System Operation Report.

6. 4. 1. . Vol. 1 - 1030659 70649 MAGED DOC ID:

DATE: 10/8/96 PAGES: 9

ADDRESSEE(S): AUTHOR(S):

John P. French/ICF Technology Inc. Ann Williamson/EPA

DESCRIPTION: 9/96 System Operation Report.

6. 4. 1. . Vol. 1 - 1030660 DOC ID: 70650 MAGED

DATE: 11/11/96 PAGES: 8

ADDRESSEE(S): AUTHOR(S):

Ann Williamson/EPA John P. Frerich/ICF Technology Inc.

DESCRIPTION: 10/96 System Operation Report.

70651 MAGED 6. 4. 1. . Vol. 1 - 1030661 DOC ID:

DATE: 12/10/96 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc. Ann Williamson/EPA

DESCRIPTION: 11/96 System Operation Report.

6. 4. 1. . Vol. 1 -1030662 DOC ID: 70652 IMAGED

9 DATE: 1/10/97 PAGES:

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA John P. French/ICF Technology Inc.

DESCRIPTION: 12/96 System Operation Report.

71584 IMAGED DOC ID: 6. 4. 1. . Vol. 1 -1030820

PAGES: DATE: 2/11/97 11

ADDRESSEE(S): AUTHOR(S):

Ann Williamson/EPA John P. Frerich/ICF Technology Inc.

DESCRIPTION: 1/97 System Operation Report.

6. 4. 1. . Vol. 1 - 1030441 DOC ID: 69879 IMAGED

DATE: 3/7/97 PAGES: 9

AUTHOR(S): - ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dailey/EPA

DESCRIPTION: 2/97 System Operation Report.

6. 4. 1. . Vol. 1 - 1030623 DOC ID: 70455 IMAGED

DATE: 4/14/97 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dafley/EPA

DESCRIPTION: 3/97 System Operation Report.

6. 4. 1. . Vol. 1 - 1030794 DOC ID: 71270 IMAGED

DATE: 5/22/97 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dailey/EPA

DESCRIPTION: 4/97 System Operation Report.

6. 4. 1. . Vol. 1 - 1030795 DOC ID: 71271 IMAGED

DATE: 6/11/97 PAGES: 9

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Anne Dailey/EPA

DESCRIPTION: 5/97 System Operation Report.

SUB-HEAD: 6. 4. 2. . Vol. 1 - Emergency Actions

6. 4. 2. . Vol. 1 - 1037543 DOC ID: 40349 IMAGED

DATE: 12/1/95 PAGES: 19

AUTHOR(S): ADDRESSEE(S):

Bernie Zavala/EPA Ann Williamson/EPA

DESCRIPTION: Report of emergency shutdown due to equipment failure on 11/23/95.

6. 4. 2. . Vol. 1 - 1030182 DOC ID: 42779 IMAGED

DATE: 12/20/95 PAGES: 16

AUTHOR(S): ADDRESSEE(S):

Rick Roehl/Ecology & Environment, Inc. EPA

DESCRIPTION: Log book, photos and slides regarding water treatment repairs from 12/12/95 to 12/20/95.

6. 4. 2. . Vol. 1 - 1030183 DOC ID: 42780 IMAGED

DATE: 12/20/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Bemie Zavala/EPA Deborah J. Yamamoto/EPA

DESCRIPTION: Memo regarding need for Boomsnub sludge analysis by x-ray diffraction and micro probe.

6. 4. 2. . Vol. 1 - 1030184 DOC ID: 42782 IMAGED

DATE: 12/21/95 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Bart Cannon/Cannon Microprobe Mark Woodke/Ecology & Environment, Inc.

DESCRIPTION: Itemization of costs for sludge sampling.

6. 4. 2. . Vol. 1 - 1037544 DOC ID: 40350 IMAGED

DATE: 1/22/96 PAGES: 20

AUTHOR(S): ADDRESSEE(S):

William L. Carberry/Ecology & Environment, Inc. Chrls D. Fletd/EPA

DESCRIPTION: Trip report of repairs to groundwater treatment.

6. 4. 2. Vol. 1 - 1037860 DOC ID: 40793 IMAGED

DATE: 1/27/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Unknown

DESCRIPTION: Temporary well locations and summary of ground water analytical results.

6. 4. 2. . Vol. 1 - 1037845 DOC ID: 41047 IMAGED

DATE: 4/24/96 PAGES: 14

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Richard Cyr/Clark County Public Utilities
Ann Williamson/EPA Rick Roehl/Ecology & Environment, Inc.

Ann Williamson/EPA Elaine Spray/City of Vancouver

DESCRIPTION: Letter and enclosed copy of ICF Technology's "Report on the Boomsnub System Upset and Corrective Actions Taken" (December, 1995), describing treatment process used at site.

6. 4. 2. . Vol. 1 - 1037926 DOC ID: 41402 IMAGED

DATE: 5/20/96 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA John Frerich/ICF Technology Inc.

DESCRIPTION: Letter regarding need to increase pumping rates of extraction wells.

6. 4. 2. . Vol.1 - 1037977 DOC ID: 41725 IMAGED

DATE: 5/30/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA John French/ICF Technology Inc.

DESCRIPTION: Quality Assurance Sampling Plan - Groundwater Sampling of Ion Exchange/Air Stripper Treatment System.

6. 4. 2. . Vol. 1 - 1030017 DOC ID: 41814 MAGED

DATE: 6/7/96 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

John Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: Pump rate test results.

6. 4. 2. . Vol. 1 - 1030121 DOC ID: 42444 IMAGED

DATE: 7/30/96 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Deborah J. Yamamoto/EPA Bill Gleeson/La Valley Industries, Inc.

DESCRIPTION: Letter advising of spill which occurred on 7/26/96 that may have overflowed onto La Valley

property; prevention methods are also outlined.

6. 4. 2. . Vol. 1 - 1030301 DOC ID: 68015 IMAGED

DATE: 8/ 1/96 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

John P. Frerich/ICF Technology Inc.

Ann Williamson/EPA

DESCRIPTION: Memo and photos regarding spill at Boomsnub site.

NOTE: Original photos are in site file.

SUB-HEAD: 6. 5. . . Vol. 1 - Disposal Information

6. 5. . . Vol. 1 - 1037546 DOC ID: 40351 IMAGED

DATE: PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Unknown Unknown

DESCRIPTION: Infiltration Basin Composition - hand drawings.

6. 5. . . Vol. 1 - 1037548 DOC ID: 40352 IMAGED

DATE: 7/15/94 PAGES: 1

AUTHOR(S): - ADDRESSEE(S):

City of Vancouver State of Washington Dept. of Ecology

DESCRIPTION: Wastewater engineering statement of account.

6. 5. . . Vol. 1 - 1037547 DOC ID: 40353 IMAGED

DATE: 9/9/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Thor Cutler/EPA Victor Ehrlich/City of Vancouver

DESCRIPTION: Quarterly monitoring report for third quarter 1994.

6. 5. . . Vol. 1 - 1037549 DOC ID: 40354 IMAGED

DATE: 12/1/94 PAGES: ~ 4

AUTHOR(S): ADDRESSEE(S):

Rick Roehl/Ecology & Environment, Inc.

Unknown

DESCRIPTION: Weekly well walk log/daily monitoring reports.

6. 5. . . Vol. 1 - 1037550 DOC ID: 40355 IMAGED

DATE: 12/1/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Beth Feeley/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: Monthly flow data for November.

6. 5. . . Vol. 1 - 1037551 DOC ID: 40358 IMAGED

DATE: 3/1/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Victor Ehrlich/City of Vancouver

DESCRIPTION: Quarterly monitoring report for first quarter 1995.

6. 5. . . Vol. 1 - 1037552 DOC ID: 40360 IMAGED

DATE: 3/3/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: Letter regarding monthly flow data for February, 1995.

6. 5. . . Vol. 1 - 1037553 DOC ID: 40362 IMAGED

DATE: 4/17/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Mary White/City of Vancouver

DESCRIPTION: Letter advising of change in contractors from E & E to ICF Kaiser.

6, 5, . . Vol. 1 - 1037554 DOC ID: 40363 IMAGED

DATE: 5/8/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA City of Vancouver

DESCRIPTION: Letter advising of monthly flow data for April 1995.

6. 5. . . Vol. 1 - 1037555 DOC ID: 40364 IMAGED

DATE: 6/5/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Kenneth V. Jennings/ICF Kaiser Engineers Group, Inc. Ann Williamson/EPA

DESCRIPTION: Evaluation of options for disposal method and disposal facility for spent resin.

DOC ID: 40365 IMAGED 6. 5. . . Vol. 1 - 1037556

DATE: 6/8/95 PAGES:

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: Monthly flow data for May, 1995.

6. 5. . . Vol. 1 - 1037557 DOC ID: 40366 IMAGED

PAGES: 1 DATE: 7/6/95

ADDRESSEE(S): AUTHOR(S):

Thomas Boyer/City of Vancouver Ann Williamson/EPA

DESCRIPTION: Monthly flow data for June, 1995.

DOC ID: 40367 IMAGED 6. 5. . . Vol. 1 - 1037558

PAGES: 1 DATE: 8/ 1/95

ADDRESSEE(S): AUTHOR(S):

Thomas Boyer/City of Vancouver Ann Williamson/EPA

DESCRIPTION: Monthly flow data for July, 1995.

6. 5. . . Vol. 1 - 1037559 DOC ID: 40369 IMAGED

PAGES: 1 DATE: 9/1/95

ADDRESSEE(S): AUTHOR(S):

Thomas Boyer/City of Vancouver Ann Williamson/EPA

DESCRIPTION: Monthly flow data for August, 1995.

6. 5. . . Vol. 1 - 1037560 DOC ID: 40370 IMAGED

PAGES: 3 DATE: 9/29/95

ADDRESSEE(S): AUTHOR(S):

Ann Williamson/EPA Victor Ehrlich/City of Vancouver

DESCRIPTION: Third quarter 1995 monitoring report.

6. 5. . . Vol. 1 - 1037561 DOC ID: 40371 IMAGED

PAGES: DATE: 10/2/95 1

ADDRESSEE(S): AUTHOR(S):

Thomas Boyer/City of Vancouver Ann Williamson/EPA

DESCRIPTION: Monthly flow date for Sept. 1995.

6. 5. . . Vol. 1 - 1037397 DOC ID: 40075 IMAGED

12 PAGES: DATE: 10/16/95

ADDRESSEE(S): AUTHOR(S):

City of Vancouver Ann Williamson/EPA

DESCRIPTION: Revised third quarter permit monitoring report.

DOC ID: 40469 IMAGED 6. 5. . . Vol. 1 - 1037562

DATE: 11/2/95 PAGES: 1

ADDRESSEE(S): AUTHOR(S):

Thomas Boyer/City of Vancouver Ann Williamson/EPA

DESCRIPTION: 10/95 flow data.

6. 5. . . Vol. 1 - 1037563 DOC ID: 40373 IMAGED

DATE: 12/4/95 PAGES: 12

ADDRESSEE(S): AUTHOR(S):

Elaine Spray/City of Vancouver Ann Williamson/EPA

DESCRIPTION: Letter regarding discharge violation.

DOC ID: 40374 IMAGED 6. 5. . . Vol. 1 - 1037565

7 PAGES: DATE: 12/19/95

ADDRESSEE(S): AUTHOR(S):

73

Ann Willamson/EPA Elaine Spray/City of Vancouver DESCRIPTION: EPA's response to violations of chromium levels in effluent samples. 6. 5. . . Vol. 1 - 1037564 DOC ID: 40375 IMAGED DATE: 12/21/95 PAGES: 11 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA City of Vancouver DESCRIPTION: Fourth quarter 1995 monitoring report. 1037566 DOC ID: 40376 IMAGED 6. 5. . . Vol. 1 -DATE: 1/4/98 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Thomas Bover/City of Vancouver DESCRIPTION: 12/95 monthly flow data. 6. 5. . . Vol. 1 -1030099 DOC ID: 41966 IMAGED DATE: 2/ 1/98 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Thomas Boyer/City of Vancouver DESCRIPTION: 1/96 flow data report. DOC ID: 41965 IMAGED 6. 5. . . Vol. 1 - 1030098 DATE: 2/9/96 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Unknown Unknown DESCRIPTION: Statement regarding requirements for chemical analyses of samples obtained from groundwater treatment system. 6. 5. . . Vol. 1 -1037846 DOC ID: 40795 MAGED DATE: 3/4/96 2 PAGES: AUTHOR(S): ADDRESSEE(S): Thor Cutler/EPA Victor Ehrlich/City of Vencouver DESCRIPTION: Letter and quarterly water treatment monitoring report for fourth quarter of 1994. 1037847 DOC ID: 40796 IMAGED 6. 5. . . Vol. 1 -DATE: 3/4/96 PAGES: ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA Thomas Boyer/City of Vancouver DESCRIPTION: Flow data for Boomsnub water treatment system for February 1998. 6. 5. . . Vol. 1 - 1037848 DOC ID: 40794 IMAGED DATE: 3/20/96 PAGES: 3 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Thomas Boyer/City of Vancouver DESCRIPTION: Letter advising of violation of PH discharge limits. 6. 5. . . Vol. 1 - 1037849 DOC ID: 40853 IMAGED DATE: 3/21/96 PAGES: 16 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Victor Ehrlich/City of Vancouver DESCRIPTION: First quarter 1998 monitoring report for ground water treatment system. 6. 5. . . Vol. 1 -DOCID: 41134 IMAGED 1037876 DATE: 5/ 1/96 PAGES: AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA

Thomas Boyer/City of Vancouver

DESCRIPTION: 4/96 flow data.

6. 5. . . Vol. 1 - 1037877 DOC ID: 41136 IMAGED

DATE: 5/2/96 _ PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: Letter advising of excess ph levels.

6. 5. . . Vol. 1 - 1037975 DOC ID: 41723 IMAGED

DATE: 6/3/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: 5/96 flow data.

6. 5. . . Vol. 1 - 1030100 DOC ID: 42042 IMAGED

DATE: 7/ 1/98 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: 6/96 flow data for water treatment system.

6. 5. . . Vol. 1 - 1030143 DOC ID: 42716 IMAGED

DATE: 8/ 1/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: 7/96 flow data for Boomsnub water treatment system.

6. 5. . . Vol. 1 - 1030202 DQC ID: 66040 IMAGED

DATE: 9/9/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Bover/City of Vancouver

DESCRIPTION: 8/96 flow data.

6. 5. . . Vol. 1 - 1030245 DOC ID: 67256 IMAGED

DATE: 9/27/96 PAGES: 24

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Victor Ehrlich/City of Vancouver

DESCRIPTION: Third quarter 1996 monitoring report.

6. 5. . . Vol. 1 - 1030244 DOC ID: 67253 IMAGED

DATE: 10/1/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: 9/96 flow data.

6. 5. . . Vol. 1 - 1030263 DOC ID: 67305 #MAGED

DATE: 11/1/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: 10/96 Boomsnub Water Treatment System flow data.

6. 5. . . Vol. 1 - 1030281 DGC ID: 67475 IMAGED

DATE: 12/2/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Thomas Boyer/City of Vancouver

DESCRIPTION: 11/96 flow data.

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN, RECORD INDEX 6. 5. . . Vol. 1 - 1030302 DOC ID: 68020 MAGED DATE: 1/2/97 PAGES: 15 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Victor Ehrlich/City of Vancouver DESCRIPTION: Fourth quarter 1996 monitoring report. 6. 5. . . Vol. 1 - 1030303 DOC ID: 68021 IMAGED PAGES: 1 DATE: 1/6/97 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Thomas Boyer/City of Vancouver DESCRIPTION: December 1996 flow data report. DOC ID: 68204 IMAGED 6. 5. . . Vol. 1 - 1030334 DATE: 2/3/97 PAGES: 1 ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA ----Thomas Boyer/City of Vancouver DESCRIPTION: 1/97 flow data. 6. 5. . . Vol. 1 - 1030390 DOC ID: 69010 IMAGED DATE: 3/3/97 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Thomas Boyer/City of Vancouver John P. Frerich/ICF Technology Inc. DESCRIPTION: 2/97 flow data. 6. 5. . . Vol. 1 - 1030749 DOC ID: 71057 IMAGED PAGES: 4 ADDRESSEE(S): AUTHOR(S): John P. Frerich/ICF Technology Inc. Anne Dailey/EPA DESCRIPTION: First quarter 1997 monitoring report. 6. 5. . . Vol. 1 - 1030624 DOC ID: 70456 IMAGED DATE: 3/31/97 PAGES: 13 AUTHOR(S): ADDRESSEE(S): Anne Dailey/EPA Victor Ehrlich/City of Vancouver DESCRIPTION: First quarter 1997 monitoring report. 6. 5. . . Vol. 1 - 1030607 DOC ID: 70416 IMAGED DATE: 4/ 1/97 PAGES: 1 ADDRESSEE(S): AUTHOR(S): Thomas Boyer/City of Vancouver Anne Dailey/EPA DESCRIPTION: 3/97 flow data. 6. 5. . . Vol. 1 - 1030677 DOC ID: 70679 IMAGED DATE: 5/ 1/97 PAGES: 1 ADDRESSEE(S): AUTHOR(S): John P. French/ICF Technology Inc. Thomas Boyer/City of Vancouver DESCRIPTION: 4/97 flow data. 6. 5. . . Vol. 1 - 1030782 DOC ID: 71190 IMAGED PAGES: 1 DATE: 6/3/97 AUTHOR(S): ADDRESSEE(S): John Frerich/ICF Technology Inc. Thomas Boyer/City of Vancouver

6. 5. . . Vol. 1 - 1030814 DOC ID: 71444 IMAGED DATE: 6/27/97 PAGES: 15

AUTHOR(S): ADDRESSEE(S):

DESCRIPTION: 5/97 flow data.

Anne Dailey/EPA Victor Ehrlich/City of Vancouver

DESCRIPTION: Second quarter 1997 monitoring report.

6. 5. . . Vol. 1 - 1030815 DOC ID: 71445 IMAGED

DATE: 7/1/97 PAGES:

AUTHOR(S): ADDRESSEE(S):

Anne Dalley/EPA Thomas Boyer/City of Vancouver

1

DESCRIPTION: 6/97 flow data.

SUB-HEAD: 6. 6. . . Vol. 1 - Extraction System Modeling

6. 6. . . Vol. 1 - 1030016 DOC ID: 41813 IMAGED

DATE: PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Bernie Zavala/EPA — Ann Williamson/EPA

DESCRIPTION: Handwritten notes and drawings on extracting system.

6. 6. . . Vol. 1 - 1037567 DOC ID: 40475 IMAGED

DATE: 10/31/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

ICF Technology, Inc. Unknown

DESCRIPTION: Topography maps of capture zones; figure 1, figure 2, Option A, figure 3, Option B.

6. 6. . . Vol. 1 - 1037928 DOC ID: 41522 MAGED

DATE: 5/31/96 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

ICF Technology, Inc.

Ann Williamson/EPA

DESCRIPTION: Final Groundwater Flow and Particle Tracking Modeling.

HEADING: 8. 0. . STATE INVOLVEMENT/COORDINATION

SUB-HEAD: 8. 1. . . Vol. 1 - Correspondence

SUB-HEAD: 8. 1. 1. . - Vol. 1 - Formal Correspondence

8. 1. 1. . Vol. 1 - 1037568 DOC ID: 40476 IMAGED

DATE: 3/11/93 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Carol L. Fleskes/State of Washington Randall F. Smith/EPA

DESCRIPTION: Letter requesting that EPA expedite ranking of site as hazardous.

8. 1. 1. . Vol. 1 - 1037569 DOC ID: 40477 IMAGED

DATE: 7/21/93 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Randall F. Smith/EPA Carol L. Fleskes/State of Washington

DESCRIPTION: Response letter advising that site does not qualify for NPL listing based on HRS score.

8. 1. 1. . Vol. 1 - 1037570 DOC ID: 40478 IMAGED

DATE: 3/2/94 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

Megan White/State of Washington James Merriam/Airco Gases

DESCRIPTION: First Amendment to Enforcement Order DE 93TC-S335.

8. 1. 1. . Vol. 1 - 1037571 DOC ID: 40479 IMAGED

DATE: 4/8/94 PAGES: - 2

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Thor Cutter/EPA

DESCRIPTION: Letter regarding soil data and chromium cleanup level (no data attached).

8. 1. 1. . Vol. 1 - 1037572 DOC ID: 40480 IMAGED

DATE: 4/27/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Mike Blum/State of Washington Dept. of Ecology James Merriam/Airco Gases

DESCRIPTION: Letter advising of Airco's responsibility for wastewater discharge permit.

8. 1. 1. . Vol. 1 - 1037573 DOC ID: 40481 IMAGED

DATE: 4/29/94 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Thor Cutler/EPA

DESCRIPTION: Transmittal of Sept. 1993 Fact Sheet on Boomsnub, and March 1994 Groundwater and Treatment

System Report.

8. 1. 1. . Vol. 1 - 1037574 DOC ID: 40482 IMAGED

DATE: 5/9/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

David B. Jansen/State of Washington Dept. of Ecology EPA

DESCRIPTION: Letter regarding proposed listing of Airco Gases on NPL.

8. 1. 1. Vol. 1 - 1037575 DOC ID: 40483 IMAGED

DATE: 5/24/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Elaine Spray/City of Vancouver Mary Beth Hayes/State of Washington Dept. of

Ecology

Page

DESCRIPTION: Letter regarding transfer of city discharge permit.

8. 1. 1, . Vol. 1 - 1037576 DOC ID: 40484 MAGED

DATE: 5/26/94 PAGES: 2

AUTHOR(S): _ ADDRESSEE(S):

Richard Cyr/Clark County Public Utilities Thor Cutter/EPA

DESCRIPTION: Letter advising of utilities' willingness to cooperate in cleanup.

8. 1. 1. . Vol. 1 - 1037577 DOC ID: 40485 IMAGED

DATE: 5/31/94 PAGES! 1

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/Washington State Department of Ecology Ann Williamson/EPA

DESCRIPTION: Cover letter transmitting enforcement information and approved work plans (not attached).

8. 1. 1 . Vol. 1 - 1037578 DOC ID: 40486 IMAGED

DATE: 6/14/94 PAGES: 5

AUTHOR(S):

Dan Alexanian WDOE

ADDRESSEE(S):

Ann Williamson/EPA

DESCRIPTION: Letter expressing concern about chromium plume.

8. 1. 1. . Vol. 1 - 1037579 DOC ID: 40487 IMAGED

DATE: 7/7/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Mike Blum/State of Washington Dept. of Ecology State of Washington

DESCRIPTION: Letter advising not to sell property adjacent to Boomsnub.

8. 1. 1. . Vol. 1 - 1037580 DOC ID: 40488 IMAGED

DATE: 7/15/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

K. Seiler/Washington State Department of Ecology Jason Niblett/Boomsnub Corp.

DESCRIPTION: Letter advising of need to submit an engineering report, plans and specifications and an operations and maintenance manual for new construction.

8. 1. 1. . Vol. 1 - 1037581 DOC ID: 40489 MAGED

DATE: 7/22/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Elaine Spray/City of Vancouver

DESCRIPTION: June 1994 flow data for groundwater cleanup project.

8. 1. 1. . Vol. 1 - 1037582 DOC ID: 40490 IMAGED

DATE: 7/26/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Elaine Spray/City of Vancouver

DESCRIPTION: Letter regarding discharge permit.

8. 1. 1. . Vol. 1 - 1037583 DOC ID: 40491 IMAGED

DATE: 8/8/94 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/Washington State Department of Ecology Ann Williamson/EPA

DESCRIPTION: Transmittal of agreement for Wastewater Discharge Fees.

8. 1. 1. . Vol. 1 - 1037584 DOC ID: 40492 IMAGED

DATE: 8/8/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Juanita Fitzgerald/Unknown

-

DESCRIPTION: Well sampling results.

8. 1. 1. . Vol. 1 - 1037585 DOCID: 40493 IMAGED

DATE: 9/8/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Robert Williams/Unknown

DESCRIPTION: Well sampling results.

8. 1. 1. . Vol. 1 - 1037589 DOC ID: 40494 IMAGED

DATE: 9/9/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Robert Crockford/Unknown

DESCRIPTION: Well sampling results.

8. 1. 1. . Vol. 1 - 1037586 DOCID: 40495 IMAGED

DATE: 9/14/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/Washington State Department of Ecology James Merriam/BOC Gases

DESCRIPTION: Letter advising company to negotiate an agreement with EPA for payment of wastewater discharge fee.

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8. 1. 1. . Vol. 1 - 1037587 DOC ID: 40496 IMAGED

DATE: 10/19/94 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Mary Beth Hayes/State of Washington Dept. of

Ecology

DESCRIPTION: Statement of Work for agency assistance between EPA and Dept. of Ecology.

8. 1. 1. . Vol. 1 - 1037588 DOC ID: 40497 IMAGED

DATE: 11/9/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Tina Masterson/Washington State Department of Ecology James Merriam/BOC Gases

DESCRIPTION: Letter regarding concurrence on disposal of soil that has not been treated for contaminants.

8. 1. 1. . Vol. 1 - 1037590 DOC ID: 40498 IMAGED

DATE: 3/3/95 PAGES: 15

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Ann Williamson/EPA

DESCRIPTION: Memo with attached letters sent to individuals in July-Aug. 1993 requesting contributions for cleanup.

8. 1. 1. . Vol. 1 - 1030140 DOC ID: 42614 IMAGED

DATE: 4/25/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology EPA

DESCRIPTION: Quarterly Report for 1/1/95 - 03/31/95.

8. 1. 1. . Vol. 1 - 1037591 DOC ID: 40499 IMAGED

DATE: 6/20/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

David B. Jansen/State of Washington Dept. of Ecology State of Washington

DESCRIPTION: Letter regarding release of state property on NE 78th St., Vancouver.

8. 1. 1. . Vol. 1 - 1037592 DOC ID: 40500 IMAGED

DATE: 9/7/95 PAGES: 13

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Mark McLoud/Whitfield-Bernhardt Realtors

٠ د

DESCRIPTION: Reply to inquiry regarding groundwater plume.

8. 1. 1. . Vol. 1 - 1037593

DOC ID: 40501 IMAGED

DATE: 10/2/95

PAGES:

AUTHOR(S):

ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Robert Crockford/Unknown

DESCRIPTION: Reply to inquiry; advisement that well is still tainted with chromium.

8. 1. 1. . Vol. 1 - 1037929

DATE: 4/30/96

PAGES:

DOC ID: 41547 IMAGED

AUTHOR(S):

ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology

DESCRIPTION: Washington State MSCA Quarterly Report.

1030203

8. 1. 1. . Vol. 1 -

DOC ID: 66041 IMAGED 1

DATE: 8/7/98 AUTHOR(S):

PAGES:

ADDRESSEE(S):

EPA

Mary Beth Haves/State of Washington Dept. of Ecology

John Frerich/ICF Technology Inc.

DESCRIPTION: Letter of transmittal regarding Boomsnub groundwater extraction information.

8. 1. 1. . Vol. 1 -

1030315

DOC ID: 68024 IMAGED

DATE: 8/12/96

PAGES: . A

AUTHOR(S):

Ann Williamson/EPA

Mary B. Hayes/Washington State Department of

Ecology

ADDRESSEE(S):

DESCRIPTION: Response to Ecology's request for ground water data.

8. 1. 1. . Vol. 1 - 1030271

DOCID: 67433 IMAGED

2

2

DATE: 10/21/96

PAGES:

AUTHOR(S): Dan Alexanian WDOE ADDRESSEE(S):

DESCRIPTION: 10/96 Quarterly progress report from Dept. of Ecology.

8. 1. 1. . Vol. 1 - 1030272

DOC ID: 67435 IMAGED

DATE: 11/12/96

PAGES:

AUTHOR(S):

Truman Beeler/EPA

ADDRESSEE(S):

Mary Burg/Washington Dept. of Ecology DESCRIPTION: Letter regarding audit of Ecology's claim for cost share credit at Boomsnub.

8. 1. 1. . Vol. 1 - 1030786

DOC ID: 71195 IMAGED

3

DATE: 2/28/97

PAGES:

ADDRESSEE(S):

AUTHOR(S):

Washington State Department of Ecology

DESCRIPTION: Washington State Quarterly Report, 4th quarter, 1996.

8. 1. 1. . Vol. 1 -

1030679

DOC ID: 70681 IMAGED

DATE: 4/10/97

Deborah J. Yamamoto/EPA

PAGES:

2

AUTHOR(S):

ADDRESSEE(S):

Dan Alexanian WDOE

DESCRIPTION: Request for ARARs for the Boomsnub/Airco Superfund Site.

8. 1. 1. . Vol. 1 - 1030812

DOC ID:

71439 MAGED

DATE: 6/30/97

PAGES:

AUTHOR(S):

ADDRESSEE(S):

Dan Alexanian WDOE

Deborah J. Yamamoto/EPA

LOWARY BUUMSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX

DESCRIPTION: Concurrence letter to EPA's Proposed Plan.

SUB-HEAD: 8. 1. 2. . Vol. 1 - Handwritten Correspondence

8. 1. 2. . Vol. 1 - 1037595 DOC ID: 40503 IMAGED

DATE: 12/9/94 PAGES:

AUTHOR(S): ADDRESSEE(S):

Mary Beth Hayes/State of Washington Dept. of Ecology Ann Williamson/EPA

DESCRIPTION: Letter of transmittal itemizing 4 reports sent to Ann Williamson.

8. 1. 2. . Vol. 1 - 1030204 DOC ID: 66042 IMAGED

DATE: 8/13/96 PAGES: 6

AUTHOR(S): ADDRESSEE(S):

Sean Sheidrake/EPA Ann Williamson/EPA

Sean Sheidrake/EPA

Sean Sheidrake/EPA

Sean Sheidrake/EPA

Bernie Zavala/EPA

DESCRIPTION: E-mail correspondence discussing reinjection of treated groundwater.

HEADING: 9. 0. . . MUNICIPAL/LOCAL GOVERNMENT INVOLVEMENT Correspondence DOC ID: 40537 IMAGED 9. 1. . . Vol. 1 - 1037625 PAGES: 3 DATE: 4/13/94 ADDRESSEE(S): AUTHOR(S): Thor Cutter/EPA Dan Matlock/Pacific Groundwater Group DESCRIPTION: Letter with table attached showing locations of monitoring wells and water supply wells. DOC ID: 40541 IMAGED 9. 1. . . Vol. 1 -1037626 DATE: 5/26/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Thor Cutter/EPA Richard Cyr/Clark County Public Utilities DESCRIPTION: Letter expressing utilities' interest in involvement in cleanup project. DOC ID: 40538 IMAGED 9. 1. . . Vol. 1 -1037627 DATE: 6/27/94 PAGES: ADDRESSEE(S): AUTHOR(S): John Roland/Ecology & Environment, Inc. Elaine Spray/City of Vancouver DESCRIPTION: Requirements for city discharge permit #90-7. 9. 1. . . Vol. 1 -1037628 DOC ID: 40542 IMAGED DATE: 7/18/94 PAGES: 8 ADDRESSEE(S): AUTHOR(S): Mary Beth Hayes/State of Washington Dept. of Ecology Thor Cutler/EPA DESCRIPTION: Fax transmittal of information from city of Vancouver including water quality sampling results from June 94. Note: Original document is a copy; transmittal sheet covers top of page. DOC ID: 40539 IMAGED 9. 1. . . Vol. 1 -1037629 DATE: 7/20/94 PAGES: AUTHOR(S): ADDRESSEE(S): Mary Beth Hayes/State of Washington Dept. of Ecology Thor Cutter/EPA DESCRIPTION: Letter regarding cleanup activities and proposed action at Boomsnub. DOC ID: 40540 IMAGED 9. 1. . . Vol. 1 -1037630 DATE: 7/26/94 PAGES: 1 ADDRESSEE(S): AUTHOR(S): Elaine Spray/City of Vancouver Mary Beth Hayes/State of Washington Dept. of Ecology DESCRIPTION: Letter regarding discharge permit modification. DOC ID: 40543 MAGED 9. 1. . . Vol. 1 -1037631 DATE: 7/27/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Mary Beth Hayes/State of Washington Dept. of Mary White/City of Vancouver Ecology DESCRIPTION: Revised sewer discharge permit. 9. 1. . . Vol. 1 -1037632 DOC ID: 40544 IMAGED PAGES: DATE: 8/11/94 1 ADDRESSEE(S): AUTHOR(S):

DESCRIPTION: Memo regarding phone conversation with city manager of Vancouver.

Randall F. Smith/EPA

Thor Cutter/EPA

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Page

9. 1. . . Vol. 1 -1037633 DOC ID: 40545 IMAGED DATE: 8/17/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Victor Ehrlich/City of Vancouver L. S. Loiselle/EPA DESCRIPTION: Letter regarding cleanup activities. 9. 1. . . Vol. 1 -1037634 DOC ID: 40546 IMAGED DATE: 11/1/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Richard Cyr/Clark County Public Utilities Aaron A. Odegard/City of Vancouver DESCRIPTION: Letter regarding fire department response incident that occurred about 15 years ago. DOC ID: 40547 IMAGED 9. 1. . . Vol. 1 -1037635 PAGES: DATE: 11/3/94 AUTHOR(S): ADDRESSEE(S): Mary Beth Hayes/State of Washington Dept. of Ecology Ann Williamson/EPA DESCRIPTION: Copy of memo regarding storm water discharge. 9. 1. . . Vol. 1 -1037636 DOC ID: 40548 IMAGED PAGES: 7 DATE: 11/4/94 AUTHOR(S): ADDRESSEE(S): Clark County Public Works **EPA** DESCRIPTION: Public works permit to install a conduit across NE 47th Ave. DOC ID: 40549 IMAGED 9. 1. . . Vol. 1 -1037637 PAGES: DATE: 12/15/94 AUTHOR(S): ADDRESSEE(S): Mary Beth Hayes/State of Washington Dept. of Ecology Jeff Fowlow/Ecology & Environment, Inc. DESCRIPTION: Cover letter for drawings of groundwater extraction network. 9. 1. . . Vol. 1 - 1037638 DOC ID: 40550 IMAGED DATE: 1/18/95 PAGES: 5 ADDRESSEE(S): AUTHOR(S): : Mary Beth Hayes/State of Washington Dept. of Ecology Ann Williamson/EPA DESCRIPTION: Letter and information regarding CPU wells installed by PGG. DOC ID: 40551 IMAGED 9. 1. . . Vol. 1 -1037639 DATE: 1/19/95 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA Richard Cyr/Clark County Public Utilities DESCRIPTION: Request to be added to bimonthly meetings of advisory group. DOC ID: 40552 IMAGED 9. 1. . . Vol. 1 -1037640 PAGES: DATE: 1/31/95 AUTHOR(S): ADDRESSEE(S): Thomas Boyer/City of Vancouver Ann Williamson/EPA DESCRIPTION: 1995 update on industrial pretreatment program. 9. 1. . . Vol. 1 -DOC ID: 40553 IMAGED 1037641 DATE: 2/6/95 3 PAGES: AUTHOR(S): ADDRESSEE(S): Clark County Public Utilities Ann Williamson/EPA DESCRIPTION: Invitation to informational open house on Feb. 7, 1995 regarding road improvement project. 9. 1. . Vol. 1 - 1637642 DOC ID: 40554 IMAGED PAGES: DATE: 2/8/95 1 AUTHOR(S): ADDRESSEE(S):

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(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX Ann Williamson/EPA Thomas Bover/City of Vancouver DESCRIPTION: Cover letter for monthly flow data for January 1995. 9. 1. . . Vol. 1 - 1037643 DOC ID: 40555 MAGED DATE: 3/14/95 ~ PAGES: 1 ADDRESSEE(S): AUTHOR(S): Fitt Environmental Gordon Dawson/Clark County Public Works DESCRIPTION: Diagram of well construction and unit description. 9. 1. . . Vol. 1 -1037644 DOC ID: 40556 IMAGED DATE: 5/9/95 PAGES: 17 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Samuel Giese/Clark County Public Works DESCRIPTION: Comments on revised environmental Determination of Non Significance. 9. 1. . . Vol. 1 -1037645 DOC ID: 40557 IMAGED DATE: 5/12/95 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Samuel Giese/Clark County Public Works Ann Williamson/EPA DESCRIPTION: Transmittal letter of preliminary construction plans for construction of roadways and storm drains. 1037646 DOC ID: 40558 IMAGED 9. 1. . . Vol. 1 -DATE: 6/7/95 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Aaron A. Odegard/City of Vancouver Ann Williamson/EPA DESCRIPTION: Cover letter for copies of revisions to O & M manual for groundwater extraction and treatment system. 40559 IMAGED 9. 1. . . Vol. 1 -1037647 DOC ID: DATE: 6/12/95 PAGES: 1 AUTHOR(S): ADDRESSEE(S): Elaine Spray/City of Vancouver Ann Williamson/EPA DESCRIPTION: City pretreatment program personnel update. 9. 1. . . Vol. 1 -1037648 DOC ID: 40560 IMAGED DATE: 7/7/95 PAGES: 3 AUTHOR(S): ADDRESSEE(S): Kimberty Armstrong/Clark County Public Works Ann Williamson/EPA DESCRIPTION: Transmittal of GIS data license agreement. 68027 IMAGED 9. 1. . . Vol. 1 -1030309 DOC ID: DATE: 8/28/95 PAGES: 54 ADDRESSEE(S): AUTHOR(S): Charlie Masco/Clark County Public Works Fitt Environmental DESCRIPTION: Report titled "Hydraulic Lift Removal at Clark County Public Works". 9. 1. . . Vol. 1 -1037649 DOC ID: 40561 IMAGED DATE: 10/5/95 PAGES: 20

ADDRESSEE(S): AUTHOR(S): Ann Williamson/EPA Elaine Spray/City of Vancouver DESCRIPTION: Letter and response letter regarding pretreatment site inspection. DOC ID: 40562 IMAGED 9. 1. . . Vol. 1 -1037650 DATE: 10/11/95 PAGES: 3 AUTHOR(S): ADDRESSEE(S): Ann Williamson/EPA Norman Harker/Harker Engineering

DESCRIPTION: Infiltration proposals.

9. 1. . . Vol. 1 - 1037654 DOC ID: 40564 IMAGED

DATE: 1/24/96 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

Nancy Hamey/EPA

Ann Williamson/EPA

DESCRIPTION: Memo and December 1994 BPA groundwater monitoring information.

9. 1. . . Vol. 1 - 1030196 DOC ID: 40797 IMAGED

DATE: 2/22/96 PAGES: 39

AUTHOR(S):

Unknown

ADDRESSEE(S):

Ann Williamson/EPA

DESCRIPTION: Transmittal letter with attached Storm Water Technical Information Report and six pages of plans.

9. 1. . . Vol. 1 - 1030205 DOC ID: 66043 IMAGED

DATE: 9/9/96 PAGES: 78

AUTHOR(S): ADDRESSEE(S):

Thomas Boyer/City of Vancouver Ann Williamson/EPA

DESCRIPTION: Notice of Intent to Adopt New City Ordinance.

9. 1. . . Vol. 1 - 1030264 DOC ID: 67418 IMAGED

DATE: 10/15/96 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Greg Shafer/Clark County Public Works Bernie Zavala/EPA

DESCRIPTION: Proposal for stormwater management facility.

9. 1. . . Vol. 1 - 1030243 DOC ID: 67238 IMAGED

DATE: 10/22/98 PAGES: 159

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Bryan Halbert/Schlecht Construction, Inc.

DESCRIPTION: Letter regarding revised drainage plans for Schlecht Commercial Building and package of information to aid in correspondence with the county.

9. 1. . . Vol. 1 - 1030307 DOC ID: 68025 IMAGED

DATE: 11/7/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Greg Shafer/Clark County Public Works Unknown

DESCRIPTION: Memorandum regarding NE 78th St. stormwater detention facility.

9. 1. . . Vol. 1 - 1030308 DOC ID: 68026 IMAGED

DATE: 11/26/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Otto Gaither/Unknown Deborah J. Yamamoto/EPA

DESCRIPTION: Map regarding stormwater infiltration system.

9. 1. . . Vol. 1 - 1030701 DOC ID: 70780 IMAGED

DATE: 4/16/97 PAGES: 7

AUTHOR(S): ADDRESSEE(S):

Philip Gaddis/Clark County Public Works Unknown

DESCRIPTION: Wetland Assessment and Defineation for NE 78th St. at St. Johns Road.

SUB-HEAD: 9. 2. . . Vol. 1 - Discharge Permits

9. 2. . . Vol. 1 - 1037652 DOC ID: 40565 IMAGED

DATE: 5/ 1/92 PAGES: 21

AUTHOR(S): ADDRESSEE(S):

Victor Ehrlich/City of Vancouver State of Washington Dept. of Ecology

DESCRIPTION: City of Vancouver Wastewater Discharge Permit.

9. 2. . . Vol. 1 - 1037653 DOC ID: 40566 IMAGED

DATE: 9/6/94 PAGES: 20

AUTHOR(S): ADDRESSEE(S):

Victor Ehrlich/City of Vancouver EPA

DESCRIPTION: City of Vancouver Wastewater Discharge Permit (transferred from WDOE to EPA).

SUB-HEAD: 9. 3. . . Vol. 1 - PGG Report

9. 3. . . Vol. 1 - 1037090 DOC ID: 40567 IMAGED

DATE: 8/31/94 PAGES: 264

AUTHOR(S): ADDRESSEE(S):

Pacific Groundwater Group Clark County Public Utilities

DESCRIPTION: Results of Hydrogeologic Investigations near Boomsnub/Airco Facilities.

HEADING: 13. 0. . HEALTH ASSESSMENTS

SUB-HEAD: 13. 1. . . Vol. 1 - Correspondence

13. 1. . . Vol. 1 - 1037890 DOC ID: 41158 IMAGED

DATE: 2/24/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Ann Williamson/EPA Richard Robinson/Agency for Toxic Substances

and Disease Registry

DESCRIPTION: EPA comments on draft public health assessment for Boomsnub site.

13. 1. . . Vol. 1 - 1037891 DOC ID: 41157 IMAGED

DATE: 3/2/95 PAGES: 8

AUTHOR(S): ADDRESSEE(S):

Mary B. Hayes/Washington State Department of Ecology Richard Robinson/Agency for Toxic Substances

and Disease Registry

DESCRIPTION: Ecology comments on draft public health assessment for Boomsnub site.

13. 1. . . Vol. 1 - 1037892 DOC ID: 41158 IMAGED

DATE: 3/23/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Cindy Wind/Washington Department of Health Ann Williamson/EPA

DESCRIPTION: Letter requesting information for educational plan being devised by state Dept. of Health.

13. 1. . . Vol. 1 - 1030206 DOC ID: 66044 IMAGED

DATE: 8/15/96 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Gregory D. Thomas/Agency for Toxic Substances and Ann Williamson/EPA

Disease Registry

DESCRIPTION: E-mail correspondence regarding Boomsnub health education activities.

SUB-HEAD: 13. 2. . . Vol. 1 - ATSDR Health Assessment

13. 2. . . Vol. 1 - 1037894 DOC ID: 41160 IMAGED

DATE: 8/3/95 PAGES: 40

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Health

Richard Robinson/Agency for Toxic Substances and

Ann Williamson/EPA

Ann Williamson/EPA

Disease Registry

DESCRIPTION: Public Health Assessment for Boomsnub/Airco.

HEADING: 14. 0. . . NATURAL RESOURCE TRUSTELS

SUB-HEAD: 14. 1. ... Vol. 1 - Correspondence

14. 1. . . Vol. 1 - 1037896 DOC ID: 41177 IMAGED

DATE: 2/23/95 PAGES:

AUTHOR(S): ADDRESSEE(S):

Thor Cutler/EPA Chris Beaverson/NOAA

DESCRIPTION: Notification of potential damages to natural resources.

14. 1. . . Vol. 1 - 1037897 DOC ID: 41178 MAGED

DATE: 2/23/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Thor Cutter/EPA Charles S. Polityka/U. S. Department of Interior

DESCRIPTION: Notification of potential damages to natural resources.

14. 1. . . Vol. 1 - 1037898 DOC ID: 41180 IMAGED

DATE: 4/7/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Russell D. Peterson/USFWS Thor Cutler/EPA

DESCRIPTION: Acknowledgement of receipt of notice of potential damages to natural resources.

14. 1. . . Vol. 1 - 1037899 DOC ID: 41183 IMAGED

DATE: 5/12/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Ron Eggers/Bureau of Indian Affiars Thor Cutter/EPA

DESCRIPTION: Response to potential damages notice.

Pane

HEADING: 16. 0. . PUBLIC PARTICIPATION

SUB-HEAD: 16. 2. . . Vol. 1 - Community Relations Plan

16. 2. . . Vol. 1 - 1037945 DOC ID: 41665 IMAGED

DATE: 10/18/94 PAGES: 15

AUTHOR(S): ADDRESSEE(S):

Jean Baker/EPA Unknown

DESCRIPTION: Community Relations Plan.

16. 2. . . Vol. 1 - 1030897 DOC ID: 72411 IMAGED

DATE: 5/12/97 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

EPA Unknown

DESCRIPTION: Revised Community Relations Plan.

SUB-HEAD: 18. 3. . . Vol. 1 - Public Notices

16. 3. . . Vol. 1 - 1037946 DOC ID: 41666 IMAGED

DATE: PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Clark County Citizen's Hazardous Waste Task Force Unknown

DESCRIPTION: Notice requesting public involvement in protecting drinking water.

SUB-HEAD: 16. 5. . . Vol. 1 - Fact Sheets/Press Releases

16. 5. . . Vol. 1 - 1037947 DOC ID: 41667 IMAGED

DATE: 5/ 1/90 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Ecology Unknown

DESCRIPTION: Dept. of Ecology Fact Sheet.

16. 5. . . Vol. 1 - 1037948 DOC ID: 41668 IMAGED

DATE: 7/ 1/92 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Ecology Unknown

DESCRIPTION: Dept. of Ecology Fact Sheet.

16. 5. . . Vol. 1 - 1037949 DOC ID: 41669 IMAGED

DATE: 3/1/93 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Ecology Unknown

DESCRIPTION: Dept. of Ecology Fact Sheet on Airco Gases.

16. 5. . . Vol. 1 - 1037950 DOC ID: 41670 IMAGED

DATE: 9/ 1/93 PAGES: 5

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Ecology Unknown

DESCRIPTION: Boomsnub/Pacific Northwest Plating Fact sheet.

16. 5. . . Vol. 1 - 1037951 DOC ID: 41671 IMAGED

DATE: 12/1/93 PAGES: 4

AUTHOR(S): ADDRESSEE(S):

State of Washington Dept. of Ecology Unknown

DESCRIPTION: Dept. of Ecology Fact Sheet regarding Airco Gases.

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX DOC ID: 41672 IMAGED 16. 5. . . Vol. 1 - 1037952 DATE: 12/21/93 PAGES: AUTHOR(S): ADDRESSEE(S): State of Washington Dept. of Ecology Unknown DESCRIPTION: Enviro-News Tips: "Airco in Vancouver to conduct Hazardous Waste Cleanup". 16. 5. . . Vol. 1 - 1037953 DOC ID: 41673 IMAGED DATE: 1/1/94 PAGES: 1 AUTHOR(S): ADDRESSEE(S): EPA Unknown DESCRIPTION: National Priorities List Identifying Boomsnub as a top priority. DOC ID: 41674 MAGED 16. 5. . . Vol. 1 - 1037954 DATE: 1/18/94 PAGES: 7 ADDRESSEE(S): AUTHOR(S): EPA -- Unknown DESCRIPTION: EPA News Release regarding proposal to add Boomsnub to NPL. 16. 5. . . Vol. 1 - 1037955 DOC ID: 41675 IMAGED DATE: 4/12/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Unknown U. S. Attorney's Office DESCRIPTION: Memorandum regarding EPA and DOE response to press inquiries regarding Boomsnub investigation. DOC ID: 41676 IMAGED 1037956 16. 5. . . Vol. 1 -DATE: 5/18/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): Unknown DESCRIPTION: Superfund Fact Sheet on Boomsnub/Airco site. DOC ID: 41677 IMAGED 16. 5. . . Vol. 1 - 1037957 DATE: 5/20/94 PAGES: 1 ADDRESSEE(S): AUTHOR(S): EPA Unknown DESCRIPTION: EPA News Release regarding order to cease operations at Boomsnub. 16. 5. . . Vol. 1 - 1037958 DOC ID: 41678 IMAGED PAGES: DATE: 6/17/94 1 ADDRESSEE(S): AUTHOR(S): **EPA** Unknown DESCRIPTION: EPA News Release regarding briefing about removal operation. DOC ID: 41679 IMAGED 16. 5. . . **Vel. 1 -**1037959 DATE: 6/20/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S): Unknown-DESCRIPTION: Superfund Fact Sheet about Boomsnub removal action.

18. 5. Vol. 1 - 1037960 DOC ID: 41680 IMAGED

DATE: 7/28/94 PAGES: 2

AUTHOR(S): ADDRESSEE(S): Unknown

DESCRIPTION: Superfund Fact Sheet about Boomsnub removal activities.

(BIAAR) BOOMSNUB/AIRCO - INTERIM ACTION ADMIN. RECORD INDEX 16. 5. . . Vol. 1 - 1037961 DOC ID: 41681 IMAGED DATE: 8/30/94 PAGES: 2 AUTHOR(S): ADDRESSEE(S): EPA Unknown DESCRIPTION: Superfund Fact Sheet about progress of Boomsnub removal activities. 16. 5. . . Vol. 1 - 1037962 DOC ID: 41682 IMAGED DATE: 1/25/95 PAGES: 2 AUTHOR(S): ADDRESSEE(S): EPA Unknown DESCRIPTION: Superfund Fact Sheet about completion of Boomsnub removal activities. 16. 5. . . Vol. 1 - 1037964 DOC ID: 41684 IMAGED DATE: 2/17/95 PAGES: AUTHOR(S): ADDRESSEE(S): Helen J. Brunner/U. S. Department of Justice Unknown DESCRIPTION: Press Release regarding indictment of Boomsnub Corporation and corporate officials. 16. 5. . . Vol. 1 - 1037965 DOC ID: 41685 IMAGED DATE: 4/ 1/95 PAGES: 1 AUTHOR(S): ADDRESSEE(S): **EPA** Unknown DESCRIPTION: Update to National Priorities List. 16. 5. . . Vol. 1 - 1037963 DOC ID: 41683 IMAGED DATE: 4/6/95 2 PAGES: AUTHOR(S): ADDRESSEE(S): Unknown DESCRIPTION: Superfund Fact Sheet about start of RI/FS phase. DOCID: 41686 IMAGED 16. 5. . . Vol. 1 - 1037966 PAGES: 3 DATE: 4/25/95 ADDRESSEE(S): AUTHOR(S): EPA DESCRIPTION: Fact Sheet advising of addition of Boomsnub to National Priorities List. 41687 IMAGED 16. 5. . . Vol. 1 - 1037967 DOC ID: DATE: 4/25/95 PAGES: 2 AUTHOR(S): ADDRESSEE(S): EPA Unknown DESCRIPTION: EPA News Release regarding addition of sites to National Priorities List. 16. 5. . . Vol. 1 - 1037968 DOC ID: 41688 IMAGED

DOCID: 41689 IMAGED

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ADDRESSEE(S):

ADDRESSEE(S):

Unknown

PAGES:

DESCRIPTION: Press Release regarding court appearances of Boomsnub defendants.

PAGES:

92

AUTHOR(S):

AUTHOR(S):

DATE: 8/29/95

Bob Jacobson/EPA

16. 5. . . Vol. 1 - 1037969

DATE: 10/6/95

DESCRIPTION: Superfund Fact Sheet regarding second phase of ground water sampling at Boomsnub. 16. 5. . . Vol. 1 - 1030091 DOC ID: 41958 IMAGED DATE: 6/27/96 PAGES: 2 AUTHOR(S): ADDRESSEE(S): EPA Unknown DESCRIPTION: Superfund Fact Sheet for Boomsnub/BOC Gases. 16. 5. . . Vol. 1 - 1030440 DOC ID: 69669 IMAGED DATE: 3/24/97 PAGES: 2 ADDRESSEE(S): AUTHOR(S): EPA Unknown DESCRIPTION: Fact Sheet regarding Boomsnub/BOC Gases site evaluation. SUB-HEAD: 16. 9. . . Vol. 1 - Newspaper Articles 16. 9. . . Vol. 1 - 1037970 DOC ID: 41702 IMAGED DATE: 1/19/94 PAGES: 1 ADDRESSEE(S): AUTHOR(S): The Seattle Times Unknown Tacoma News Tribune Unknown DESCRIPTION: Articles about Boomsnub nomination for Superfund. 16. 9. . . Vol. 1 - 1037971 DOC ID: 41705 IMAGED DATE: 1/19/94 1 PAGES: ADDRESSEE(S): AUTHOR(S): The Seattle Times Unknown DESCRIPTION: Seattle Times/AP article about about Boomsnub nomination for Superfund. DOC ID: 41708 IMAGED PAGES: 1 16. 9. . . Vol. 1 - 1037972 DATE: 1/19/94 ADDRESSEE(S): AUTHOR(S): Bruce Westfall/The Columbian Unknown DESCRIPTION: Article regarding Superfund designation. 16. 9. . . Vol. 1 - 1037973 DOC ID: 41707 IMAGED PAGES: 3 DATE: 1/20/94 ADDRESSEE(S): AUTHOR(S): Loretta Callahan/The Columbian Unknown DESCRIPTION: Article: "Boomsnub Cleanup Gets Rolling." DOC ID: 41710 IMAGED 16. 9. . . Vol. 1 - 1037974 DATE: 5/26/94 PAGES: 1 ADDRESSEE(S): AUTHOR(S): Unknown Shirleen Holt/Oregonian DESCRIPTION: Article: "EPA Flexing its Muscles." 16. 9. . . Vol. 1 - 1030009 DOC ID: 41806 IMAGED PAGES: DATE: 7/22/94 1 ADDRESSEE(S): AUTHOR(S): Michael Rose/The Business Journal DESCRIPTION: Article: EPA Orders Boomsnub to Evacuate Contaminated Site. 16. 9. . . Vol. 1 - 1030011 DOC ID: 41808 IMAGED DATE: 8/25/94 PAGES: 2 ADDRESSEE(S): AUTHOR(S):

Loretta Callahan/The Columbian Unknown
DESCRIPTION: Article, "Who Will Pick up Tab for Boomsnub Cleanup?"

16. 9. . . Vol. 1 - 1030010 DOC ID: 41807 IMAGED

DATE: 9/30/94 PAGES: 3

AUTHOR(S):

Ther Cutter/EPA

ADDRESSEE(S):
Bub Leiselle/EPA

DESCRIPTION: Faxed copy of The Columbian article "Chemicals Uncovered at Boomsnub."

16. 9. . . Vol. 1 - 1030012 DOC ID: 41809 IMAGED

DATE: 1/25/95 PAGES: 2

AUTHOR(S): ADDRESSEE(S):

Richard Cyr/Clark County Public Utilities Ann Williamson/EPA

DESCRIPTION: Faxed article, "Hazardous-waste Case Plea: Guilty".

16. 9. . . Vol. 1 - 1030013 DOC ID: 41810 IMAGED

DATE: 4/5/95 PAGES: 1

AUTHOR(S):- ADDRESSEE(S):

Oregonian Unknown

DESCRIPTION: Article, "Sink Size Stirs Storm".

16. 9. . . Vol. 1 - 1030014 DOC ID: 41811 IMAGED

DATE: 10/13/95 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Loretta Callahan/The Columbian Unknown

DESCRIPTION: Article, "New Fears Surface at Boomsnub".

16. 9. . . Vol. 1 - 1030015 DOC ID: 41812 IMAGED

DATE: 3/17/96 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

Loretta Callahan/The Columbian Unknown

DESCRIPTION: Article, "Boomsnub Officials Will Serve No Jail Time".

16. 9. . . Vol. 1 - 1030375 DOC ID: 68772 IMAGED

DATE: 2/16/97 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Susan Farmer/The Columbian Unknown

DESCRIPTION: Newspaper article, "A Flair With Air" regarding expansion efforts at BOC Gases.

SUB-HEAD: 16. 10. . . Vol. 1 - Comments on Interim Action Proposed Plan

16. 10. . . Vol. 1 - 1030860 DOC ID: 72076 IMAGED

DATE: 7/30/97 PAGES:

AUTHOR(S): ADDRESSEE(S):

Dougles Battou/NE Hazel Dell Neighborhood Association Deborah J. Yamamoto/EPA

DESCRIPTION: Letter regarding Proposed Plan for Interim Action.

94

HEADING: 18. 0. . . GUIDANCE/REFERENCE MATERIAL

SUB-HEAD: 18, 3. . . Vol. 1 - Technical Reference Material

18. 3. . . Vol. 1 - 1030077 DOC ID: 41935 IMAGED

DATE: PAGES: 216

AUTHOR(S): ADDRESSEE(S):

OnSite Environmental, Inc.

Unknown

DESCRIPTION: Material Safety Data Sheets (MSDS) Organizer, Glossary of Terms, MSDS Request Form, Sample

MSD Sheet.

18. 3. . . Vol. 1 - 1030078 DOC ID: 41936 IMAGED

DATE: 9/26/85 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Unknown

DESCRIPTION: Material Safety Data Sheet on Trichloroethane.

18. 3. . . Vol. 1 - 1030080 DOC ID: 41938 MAGED

DATE: 1/1/91 PAGES: 16

AUTHOR(S): ADDRESSEE(S):

Robert S. Kerr Environmental Research Lab Unknown

DESCRIPTION: Article: "Processes Affecting the Remediation of Chromium-Contaminated Sites".

18. 3. . . Vol. 1 - 1030082 DOC ID: 41941 IMAGED

DATE: 3/22/94 PAGES: 1

AUTHOR(S): ADDRESSEE(S):

ResinTech, Inc. Unknown

DESCRIPTION: Material Safety Data Sheet regarding resins.

18. 3. . . Vol. 1 - 1030270 DOC ID: 67430 IMAGED

DATE: 5/1/95 PAGES: 3

AUTHOR(S): ADDRESSEE(S):

Northwest Cone Exploration EPA

DESCRIPTION: Brochure regarding cone penetrometer testing truck.



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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September 24, 1997

Mr. Chuck Clarke
Regional Administrator
United States Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr Charles

The Washington State Department of Ecology has reviewed the Interim Record of Decision (ROD) for the Site-Wide Ground Water Operable Unit of the Boomsnub/Airco (BOC Gases) Superfund Site located in Clark County, Vancouver, Washington. We understand that this action is an administrative procedure needed to secure long-term funding (Remedial Action Funds). We concur with the following selected remedies, described in Section 10 of the document:

- Operation and maintenance of the existing extraction/treatment system;
- Installation of additional monitoring wells near the leading edge of the plume to determine the need for more extraction wells, and connection of additional wells to the extraction network, if necessary;
- Upgrade some extraction wells and vaults as necessary to prevent infiltration of water during storm events; and
- Acquisition or construction of office space and storage area for the extraction/treatment and telemetry systems, new and used resin, as well as for tools, parts and equipment needed for operation and maintenance of the system.

We recognize that this is an interim measure which does not address the soil operable units and that contaminants will remain on-site. The selected remedies are consistent with the Model Toxics Control Act Regulation (Chapter 173-340 WAC); however, revised and/or additional Applicable or Relevant and Appropriate Requirements (ARARs) will be identified by the Department of Ecology for the final ROD.

We are looking forward to continued cleanup activities at this site.

Sincerely,

Mary E. Burg, Program Manager

Toxics Cleagup Program

MEB:cp

cc: Dan Alexanian, Toxics Cleanup Program, SW Regional Office, Ecology

Site file