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G-000-1106.5

RI/FS PROJECT MANAGEMENT PLAN
REVISION 3
OCTOBER 4, 1988

10/04/88

ASI/WMCO
144
PLAN

G-000-1106.5 88

FERNALD FEED MATERIALS PRODUCTION CENTER

RI/FS PROJECT MANAGEMENT PLAN

Revision 3

October 4, 1988

Contract No: DE-AC05-86OR21659

Prepared for:

Westinghouse Materials Company of Ohio

By:

Advanced Sciences, Inc.
Ross, Ohio

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U.S. DEPT. OF ENERGY
REFERENCE MATERIAL

DO NOT REMOVE

RI/FS PROJECT MANAGEMENT PLAN
FOR THE
FEED MATERIALS PRODUCTION CENTER
FERNALD, OHIO

APPROVED BY:

J. G. Yeasted
Technical Manager, IT

9/29/88
Date

F. E. Coffman
Vice President, Nuclear/Mixed Waste
Program, IT

10/2/88
Date

R. T. Wilde
Project Director, ASI

9-29-88
Date

G. D. Wolf
Senior Vice President, ASI

9-30-88
Date

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D. Harmer	34
J. Harvey	35
S. Niaki	36
J. Poliziani	37
T. Sole	38
B. Thomas	39
J. Yeasted	40

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1.0 INTRODUCTION

The general management approach for the FMPC RI/FS is defined in the "Fernald FMPC RI/FS Project Management Plan." It is one of a series of documents that control the RI/FS activities. This plan describes the project site, organization, and the project control concepts implemented by Advanced Sciences, Inc. It is based upon the project planning and management principles described in DOE Order 5700, ERDA Project Management Techniques Handbooks 0805.3, and DOE RDD-PMS Handbooks.

The "Fernald FMPC RI/FS Project Instructions and Protocol Manual," dated March 4, 1987, further describes the project control procedures to be used by all project participants. It includes procedures and requirements for:

- Project Organization and Responsibilities
- Communication
- Document/Data Control
- Procurement Control
- Work Authorization
- Reports

The Project Management Plan is being revised and re-issued to project participants to identify changes in the management system that have occurred recently and to provide supplemental information not previously available. A full listing of project controlling documentation is found in Table 1-1.

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TABLE 1-1

Controlling Documents List

Document	Issue Date
Current Situation Volume	11/87
Work Plan (Rev. 3)	5/88
Sampling Plan (Rev. 3)	5/88
QAPP (Rev. 3)	5/88
Health & Safety Plan (Rev. 3)	5/88
Community Relations Plan (Rev. 3)	5/88
Project Management Plan (Rev. 2)	7/88
Protocol Manual	3/87
ASI QA Manual (Rev. 3)	5/88
IT Engineering Services QA Manual (Rev. 0)	7/85
IT Analytical Services QA Manual (Rev. 0)	12/84
RSL QA Manual/Laboratory Specific Attachment (Draft)	7/87
RSL Radio Analytical Laboratory Procedures (Rev. 0)	5/87
Mixed Waste/Laboratory Specific Attachment (Rev. 0)	6/87
IT Manual of Practice Subsurface Investigation (Rev.0)	9/86
IT Visual Classification Manual	9/86
IT Standard Specifications for Subsurface Boring and Sampling	10/86
IT Sample Packaging and Shipping	11/86

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2.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

2.1 Background

The Feed Materials Production Center (FMPC) is located on a 1050-acre site in a rural agricultural area about 20 miles northwest of downtown Cincinnati, Ohio. The FMPC lies on the boundary of northern Hamilton County and southern Butler County. This location is pictured on the map of Figure 2-1. The villages of Fernald, Ross, and Shandon are within a few miles of the site. The production facilities are oriented in a north/south direction and occupy about 136 acres in roughly the center of the site (see Figure 2-2). Topographically, the facilities rest on a relatively level plain at about 580 feet above sea level. The drainage from virtually all of the site enters Paddy's Run, a tributary of the Great Miami River. Paddy's Run originates north of the FMPC and flows south, and for a portion of the year it is a dry stream bed. Drainage from the eastern edge of the site is to the Great Miami River which is about three-quarters of a mile to the east. Vegetative cover of the site area includes deciduous trees, grasses, and conifers. Surrounding land use includes several residences and small industries; however, the major economic activities in the area are farming and dairy operations. Major farm crops include sweet corn, field corn, soybeans, wheat, and garden produce sold at local and nearby urban markets.

The FMPC is a contract-operated federal facility for the production of pure uranium metals for the United States Department of Energy (DOE). The principal operations consist of metal fabrication with periodic small campaigns to process accumulated plant residues and miscellaneous feed materials obtained from other DOE sites. A small amount of thorium processing has also been conducted in the past.

As a result of these activities, both radioactive and nonradioactive wastes have been generated. Up to 1984, disposal of wastes at the FMPC occurred in onsite pits and silos. Currently, wastes are drummed and stored for off-site disposal.

A Federal Facility Compliance Agreement (FFCA), pertaining to the FMPC, was entered into on July 18, 1986, by the DOE and the United States Environmental Protection Agency (EPA). The FFCA is to guide FMPC compliance with existing environmental statutes, and implementing regulations. In addition, the FFCA is to ensure that the environmental impacts associated with past and present activities at the FMPC are thoroughly and adequately investigated, and appropriate remedial

response actions taken, in accordance with provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

In accordance with the FFCA, a sitewide Remedial Investigation (RI) and Feasibility Study (FS) are being conducted at the FMPC. These efforts comprise the RI/FS project. The RI is directed toward the determination of the nature and extent of any release, or threat of release, of hazardous or radioactive substances, pollutants, or contaminants at or from the FMPC. The FS is directed toward identification of appropriate techniques to remedy any problems or potential problems discovered by the RI. The RI/FS will conform to the EPA "Guidance on Remedial Investigations Under CERCLA" and the EPA "Guidance on Feasibility Studies Under CERCLA", and the National Contingency Handbook.

The remedial investigation involves data collection and site characterization. An initial activity is the collection and evaluation of existing data, the identification of the remedial investigation objectives, and the identification of general responses for an FS. Additional data needs, sampling plans, and support activities are also identified and developed to support site characterization. For this project, the objective of the RI is to evaluate the nature and extent of contaminant release, or potential release, from the FMPC and to gather and evaluate all data necessary to support an FS.

The objective of the FS is to identify and evaluate specific remedial actions that could effectively mitigate environmental and public health impacts from existing conditions discovered during the RI study. The FS will identify potential remedial action for specific problem areas, perform preliminary screening and detailed analysis of alternatives, and make recommendations for appropriate remedial action.

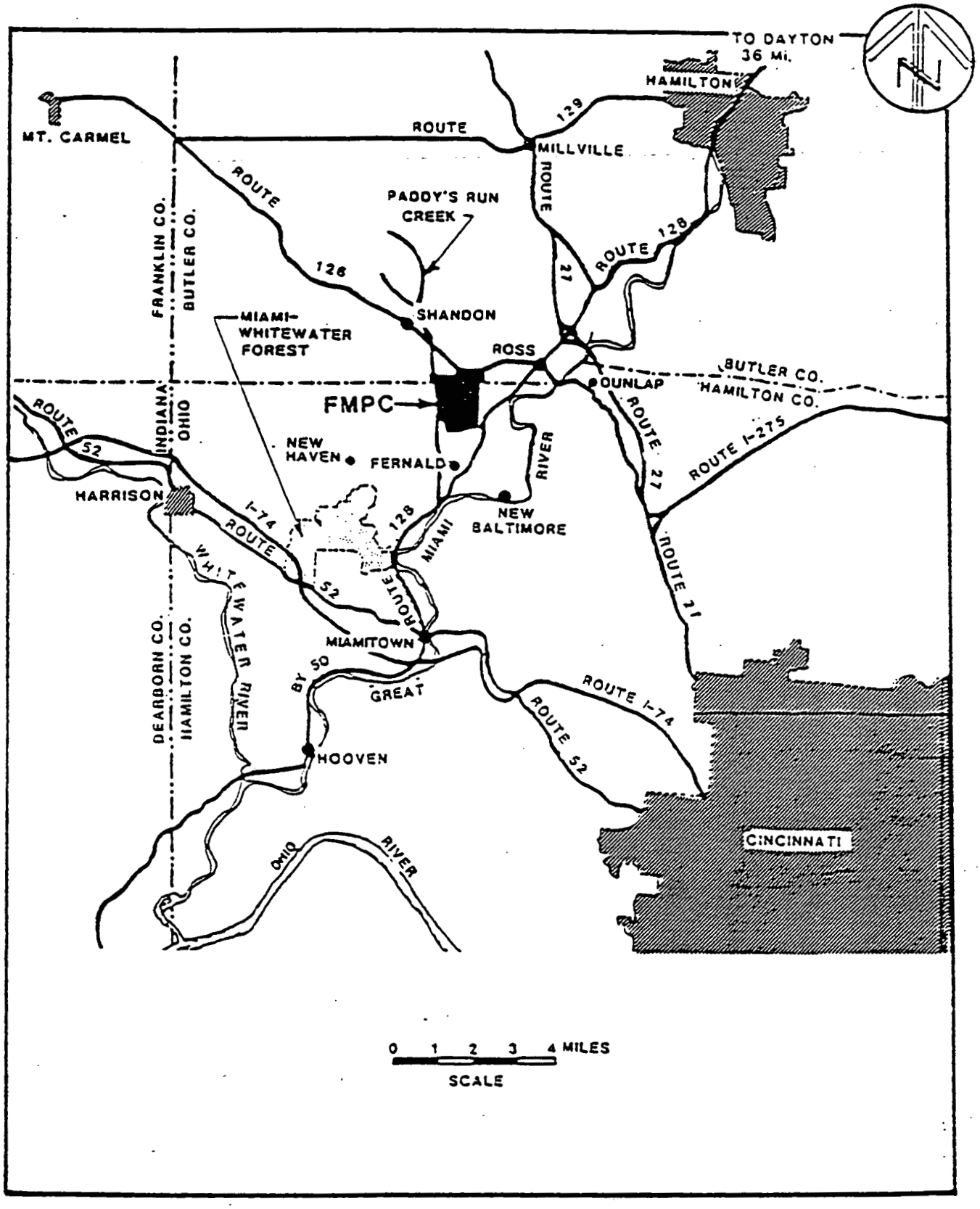
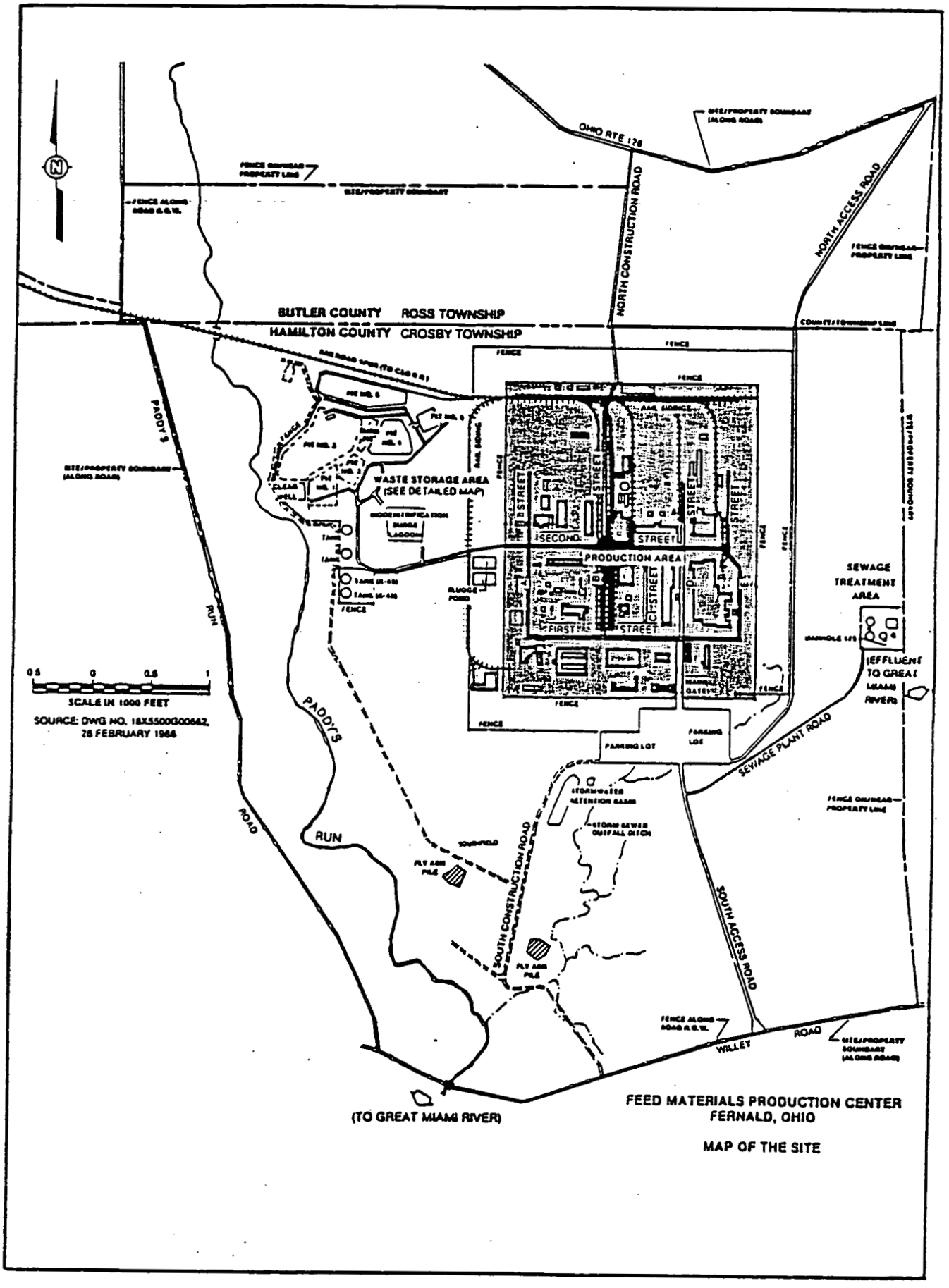


FIGURE 2-1

LOCATION OF THE FEED MATERIALS PRODUCTION CENTER



FEED MATERIALS PRODUCTION CENTER
FERNALD, OHIO

MAP OF THE SITE

FIGURE 2-2
FEED MATERIALS PRODUCTIONS CENTER SITE, FERNALD, OHIO

2.2 Organization

As prime contractor, ASI is the project director and is directly responsible to DOE/WMCO for the success of this project. ASI has organized a project team with extensive experience in the technical and administrative disciplines required for this project. A major subcontractor to ASI is International Technology Corporation (IT), with certified analytical laboratory capabilities conforming to EPA specifications, mixed waste capabilities, health physics technology, and RI/FS experience in hydrogeologic investigations and feasibility studies. The technical lead role and responsibility for overall RI/FS technical performance has been assigned to IT.

The Fernald FMPC RI/FS Project organization has been structured to include experienced professional specialists. The project organization chart is shown in Figure 2-3.

2.2.1 Project Director

The Project Director has total responsibility for the completion and technical adequacy of the RI/FS. He is responsible for the accomplishment of the RI/FS on schedule and within allocated cost. The project director will have responsibility for technical, financial, and scheduling matters. Other duties, as necessary, include:

- Procurement, along with administrative personnel, and supervision of subcontractor services.
- Assignment of duties to the project staff and orientation of the staff to the needs and requirements of the project.
- Review and approval of project-specific procedures and internally prepared plans, drawings, and reports.
- Dissemination of project-related information to EPA and the public as requested by WMCO/DOE.
- Serving as liaison between the project staff and other internal groups, such as the laboratories, QA, and Health and Safety.

2.2.2 Technical Manager

The Technical Manager reports directly to the Project Director. He is responsible for the technical excellence of all RI/FS tasks. The Technical Manager's responsibilities include:

- Technical review and approval of specific procedures, plans, drawings, and reports.

- Supervision and coordination of technical RI/FS tasks and activities.

- Reporting the project technical status and progress to the Project Director.

2.2.3 Site Manager

The Site Manager reports directly to the Project Director. He is responsible for coordination of all site activities related to the performance and scheduling of field work, including support personnel, materials procurement, and field subcontract administration. He coordinates with the On-Site Technical Manager in administrative matters, field activities, and in maintaining the cost and schedule control of the technical activities. He represents the Project Director on technical deliverables and coordinates with the Technical Manager on all RI/FS tasks. He is responsible for issuing technical cost, schedule, and progress reports as directed by the Project Director.

2.2.4 On-Site Technical Manager

The On-Site Technical Manager reports to the Project Director. He provides technical assistance and acts for the Technical Manager when appropriate. These responsibilities include:

- Schedule and cost-control of technical tasks.

- Technical surveillance of all field activities.

2.2.5 Other Requirements Administrator

The Other Requirements Administrator reports to the Site Manager. He provides cost-estimating and schedule control for all Task 9 activities. Individual Task 9 leaders will report directly to the Site Manager and On-Site Technical Manager. The Site Manager assures that Task 9 activities are staffed such that they do not interfere with RI/FS activities.

2.2.6 Quality Assurance Officer

The QA Officer reports to the Project Director and is responsible for guidance in the development of the Quality Assurance Project Plan (QAPP) and control of project QA/QC activities. The QA Officer will provide the necessary

guidance to the project and laboratory staffs regarding quality-related matters and perform project audits and surveillances. The QA Officer has the authority and responsibility to identify quality problems and initiate, recommend, or provide corrective actions. The QA Officer will also verify the implementation of the corrective actions. Other duties include:

- Notifying of personnel of nonconformances and changes in QA procedures.
- Verifying the implementation of corrective actions taken to assure conformance with the QAPP.
- Developing an audit and surveillance schedule and conducting the audits and surveillances.
- Reviewing and approving quality-related project documents.
- Providing the official contact for all QA matters for the project.
- Verifying that data quality meets the intended work objectives.

The QA Officer may take actions independent of the project group to stop the project if required for compliance with the QAPP.

2.2.7 Health and Safety Officer

The Health and Safety Officer is responsible for preparing and implementing a Health and Safety Plan that satisfies state and federal regulations and is consistent with site conditions. The Health and Safety Officer may take actions independent of the project group to stop the project, if required, for compliance with the Health and Safety Plan.

The Health and Safety Officer is responsible for the day-to-day implementation of the Health and Safety Plan during site activities. Specifically, the officer's responsibilities include:

- Issuing personnel protective equipment and proper dosimetry.
- Approving of personnel protective equipment and safety procedures specified in task plans or work procedures.

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- Maintaining and using the field monitoring equipment necessary to define on-site hazards associated with conducting RI activities.

- Designating personnel protection levels and determining protection level upgrades.

- Providing necessary guidance to the project and laboratory staffs so they can safely perform their functions in accordance with federal and state regulations.

2.2.8 Task Leaders

Task Leaders are assigned for each WBS Level 2 sub-task (2.1, 3.3, 3.4, etc.). They report to the Site Manager on administrative matters and to the Technical Manager for technical issues. Task Leaders are responsible for the following items for each task they lead.

- Planning the technical scope, cost, and schedule.

- Maintaining cognizance of DOE/EPA requirements.

- Staffing.

- Evaluating progress and associated reporting.

- Implementing the specific task in a cost effective and technically correct manner.

- Assuring that all personnel are adequately trained in all applicable operating procedures.

- Monitoring all task field activities, to assure accuracy of analytical results specific to that task.

Personnel staffing in these key positions is identified in Table 2-1. Thirty days notice is provided to WMCO prior to any changes in this listing.

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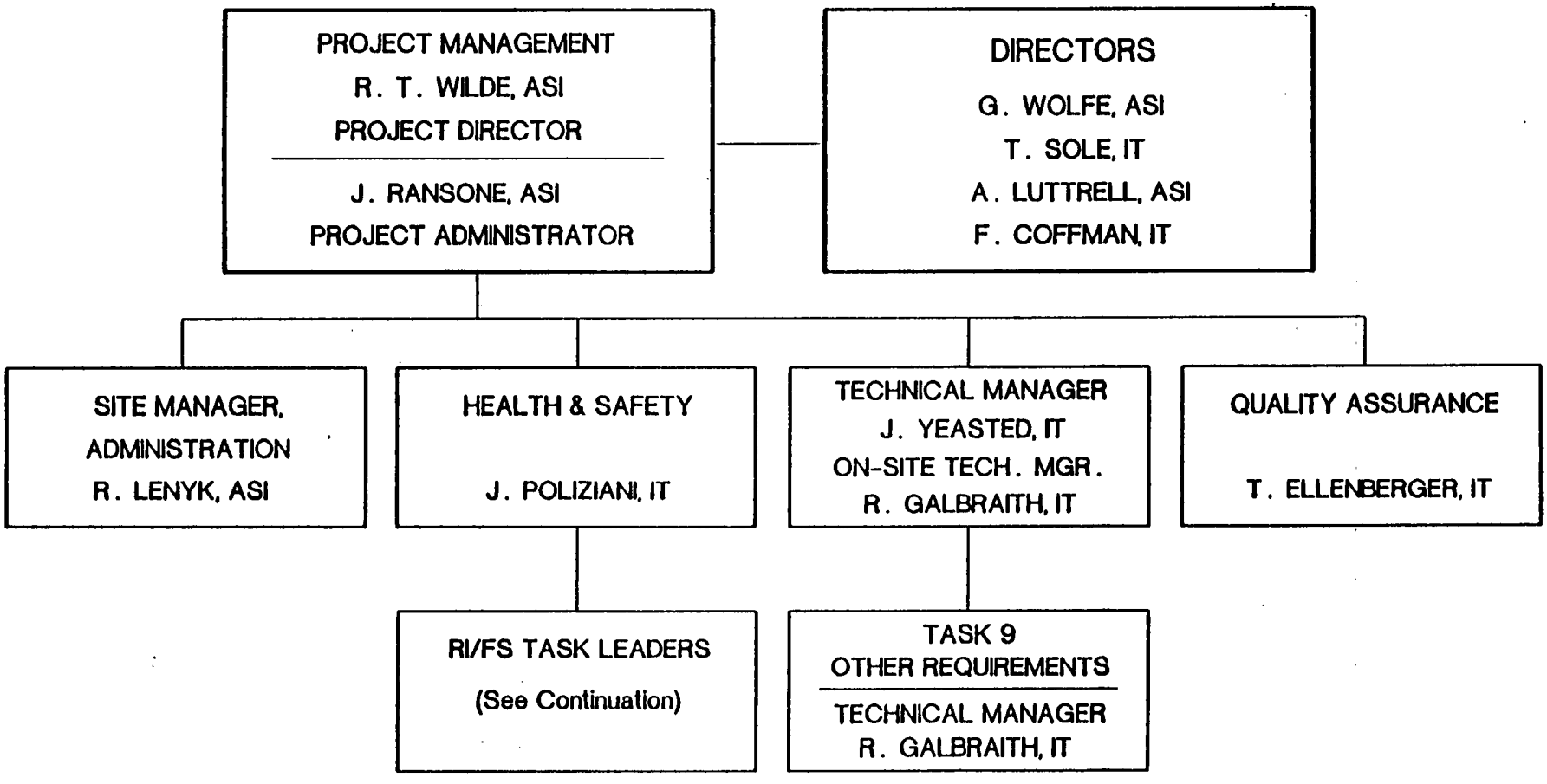

FIGURE 2-3

ORGANIZATION CHART

PAGE 1 OF 2

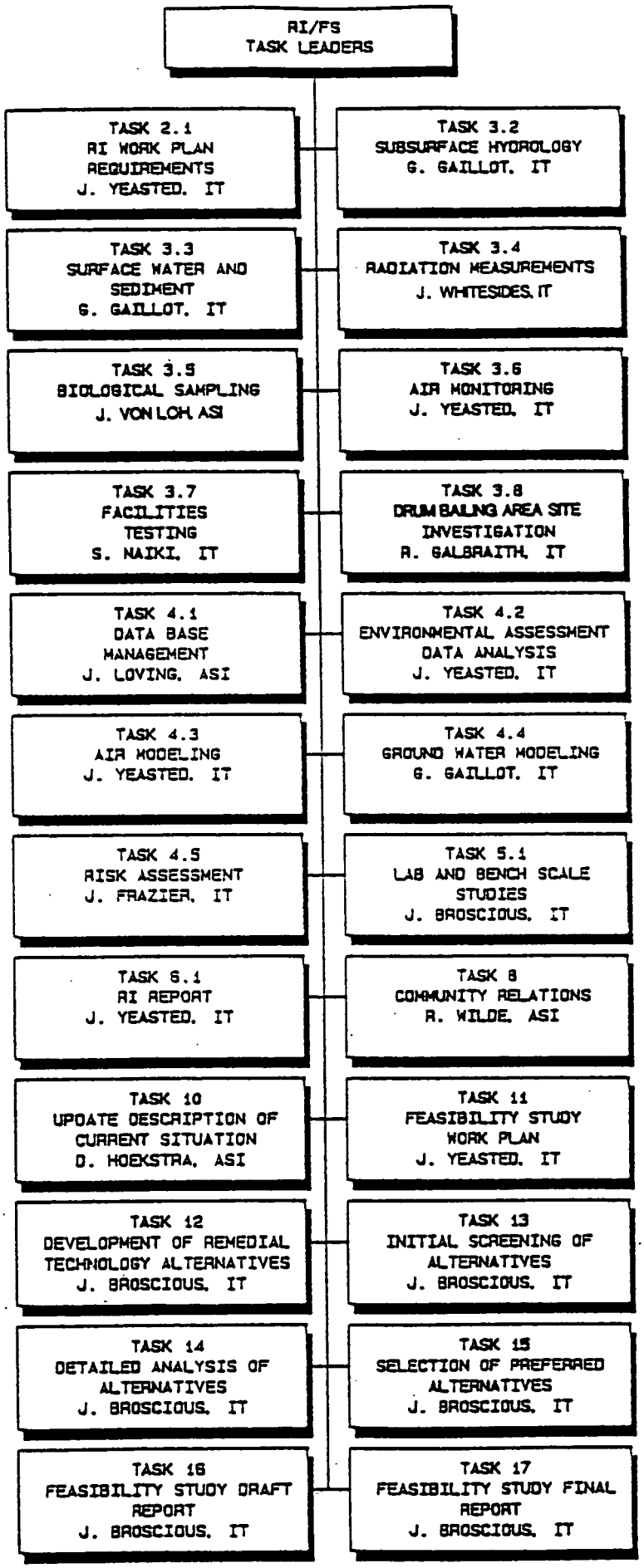

FIGURE 2-3 (CONTINUED)

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TABLE 2-1

RI/FS KEY PERSONNEL LIST

ADVANCED SCIENCES, INC. (ASI)

1.	R. T. Wilde. . . .	- Project Director - Task Leader of: o Community Relations (Task 8)
2.	R. G. Lenyk. . . .	- Site Manager
3.	J. F. Ransone. . .	- Project Administrator
4.	L. T. Murphy . . .	- Project Control Program Manager - Other Requirements Administrator
5.	J. Von Loh	- Task Leader of: o Biological Sampling (Task 3.5)
6.	J. E. Loving . . .	- Task Leader of: o Data Base Management (Task 4.1)
7.	M. F. Nicol. . . .	- Corporate Quality Assurance Manager
8.	D. P. Hoekstra . .	- Task Leader of: o Update Description of Current Situation (Task 10)

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TABLE 2-1 (Continued)

IT CORPORATION

1. J. G. Yeasted . . . - Technical Manager
   - Task Leader of:
     - o Remedial Investigation Work Plan Requirements (Task 2.1)
     - o Air Monitoring (Task 3.6)
     - o Environmental Assessment/Data Analysis (Task 4.2)
     - o Air Modeling (Task 4.3)
     - o Remedial Investigation Report (Task 6.1)
     - o Feasibility Study Work Plan (Task 11)

2. J. A. Broscious . . - Task Leader of:
   - o Lab and Bench Scale Studies (Task 5.1)
   - o Development of Remedial Technology Alternatives (Task 12)
   - o Initial Screening of Alternatives (Task 13)
   - o Detailed Analysis of Alternatives (Task 14)
   - o Selection of Preferred Alternatives (Task 15)
   - o Feasibility Study Draft Report (Task 16)
   - o Feasibility Study Final Report (Task 17)

3. R. M. Galbraith . . - On-Site Technical Manager
   - Other Requirements Technical Manager
   - Task Leader of:
     - o Drum Bailing Area Site Investigation (Task 3.8)

4. T. L. Ellenberger . - Quality Assurance Officer

5. J. F. Poliziani . . - Health and Safety Officer

6. G. Gaillot . . . . - Task Leader of:
   - o Sub-Surface Hydrology (Task 3.2)
   - o Surface Water and Sediment (Task 3.3)
   - o Ground Water Modeling (Task 4.4)

TABLE 2-1 (Continued)

IT CORPORATION

7. J. R. Frazier . . . - Task Leader of:
   - o Risk Assessment (Task 4.5)

8. J. Whitesides. . - Task Leader of:
   - o Radiation Measurements (Task 3.4)

9. S. Niaki . . . . - Task Leader of:
   - o Facilities Testing (Task 3.7)

3.0 MILESTONES AND SCHEDULE

3.1 Milestone Summary and Description Sheets

The Milestone Summary is a tabular listing of all milestones, identified by milestone numbers, milestone descriptions, and planned completion dates. The Milestone Summary, is contained in Table 3-1. A Milestone Description Sheet, containing a description of each milestone and listing the planning assumptions, is provided in Appendix A.

The RI/FS Summary Project Schedule is maintained by WMCO. A copy of the current Summary Project Schedule is presented in Figure 3-1. In addition to the Summary Project Schedule, ASI has developed and maintains a detailed RI/FS Project Schedule, which will be presented in Appendix D. (Appendix D will be issued under separate cover following final approval.) Successively lower-level detailed schedules are prepared, used, and controlled internally by ASI as required to effectively plan and manage work. All lower-level schedules are reviewed for consistency with upper-level schedules.

Table 3-1

FMPC RI/FS MILESTONE SUMMARY

M/S No.	Title	(1) Contract Due Date	RI/FS Project Summary Schedule Date	Completed
1-1	Issue Final Draft Description of Current Situation Volume to DOE/WMCO	10/30/87	N/A	10/87
1-2	Issue Final Description of Current Situation Volume to DOE/WMCO	11/16/87	11/20/87*	11/87
2-1	Issue Final Draft RI/FS Work Plan, Sampling Plans, and QAPP to DOE/WMCO	10/29/87	03/88	03/88
2-2	Issue Final RI/FS Work Plan, Sampling Plans, and QAPP to DOE/WMCO	11/16/87	03/88*	03/88
3-1	Complete Subsurface Soil Sampling	04/01/88	N/A	
3-2	Complete Installation of On-Site Wells	03/01/88	04/30/88	05/88
3-3	Complete Ground Water Measurements	03/01/89	N/A	
4-1	Complete Database Programming and Documentation	04/01/88	04/01/88	04/01/88
4-2	Complete Ground Water Model for Remedial Investigation	04/01/88	N/A	
4-3	Endangerment Assessment	07/01/88	07/01/88	

Table 3-1

FMPC RI/FS MILESTONE SUMMARY (Continued)

M/S No.	Title	(1) Contract Due Date	RI/FS Summary Project Schedule Date	Completed
4-4	Complete Ground Water Model for Feasibility Study	10/01/88	10/01/88	
5-1	Submit Laboratory and Bench Scale Study Report to DOE/WMCO	07/31/88	06/01/89**	
6-1	Submit Draft Remedial Investigation Report to DOE/WMCO for Review	12/12/88	08/12/89**	
6-2	Issue Final Remedial Investigation Report to DOE/WMCO	06/15/89	01/31/90*	
7-1	Revise and Issue Site-Specific Safety Plan	10/01/87	N/A	10/01/87
7-2	Perform Quarterly QA Field Audit and Issue Report to DOE/WMCO	12/15/87	N/A	12/15/87
7-3	Perform Quarterly QA Field Audit and Issue Report to DOE/WMCO	03/15/88	N/A	03/15/88
7-4	Perform Quarterly QA Field Audit and Issue Report to DOE/WMCO	06/15/88	N/A	06/15/88
7-5	Perform Quarterly QA Field Audit and Issue Report to DOE/WMCO	09/15/88	N/A	

Table 3-1

FMPC RI/FS MILESTONE SUMMARY (Continued)

M/S No.	Title	(1) Contract Due Date	RI/FS Summary Project Schedule Date	Completed
7-6	Perform Quarterly QA Field Audit and Issue Report to DOE/WMCO	12/15/88	N/A	
7-7	Perform QA Close-Out Audit and Issue Report to DOE/WMCO	05/15/89	N/A	
8-1	Complete Initial RI/FS Slide Presentation	09/30/87	N/A	
11-1	Issue Final Feasibility Study Work Plan to DOE/WMCO	08/01/88	08/15/88*	09/30/87
13-1	Submit Final Report on Initial Screening of Alternatives to DOE/WMCO	09/09/88	03/01/89*	
14-1	Submit FInal Report on Detailed Analysis of Remedial Action Alternatives to DOE/ WMCO	11/14/88	06/01/89*	
15-1	Submit Final Report on the Evaluation and Selection of Preferred Remedial Action Alternatives to DOE/WMCO	03/01/89	09/15/89*	

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Table 3-1

FMPC RI/FS MILESTONE SUMMARY (Continued)

M/S No.	Title	(1) Contract Due Date	RI/FS Summary Project Schedule Date	Completed
16-1	Submit Final Draft Feasibility Study Report to DOE/WMCO	05/15/89	10/31/89*	
17-1	Submit Final Feasibility Study Report to DOE/WMCO	07/15/90	07/31/90*	

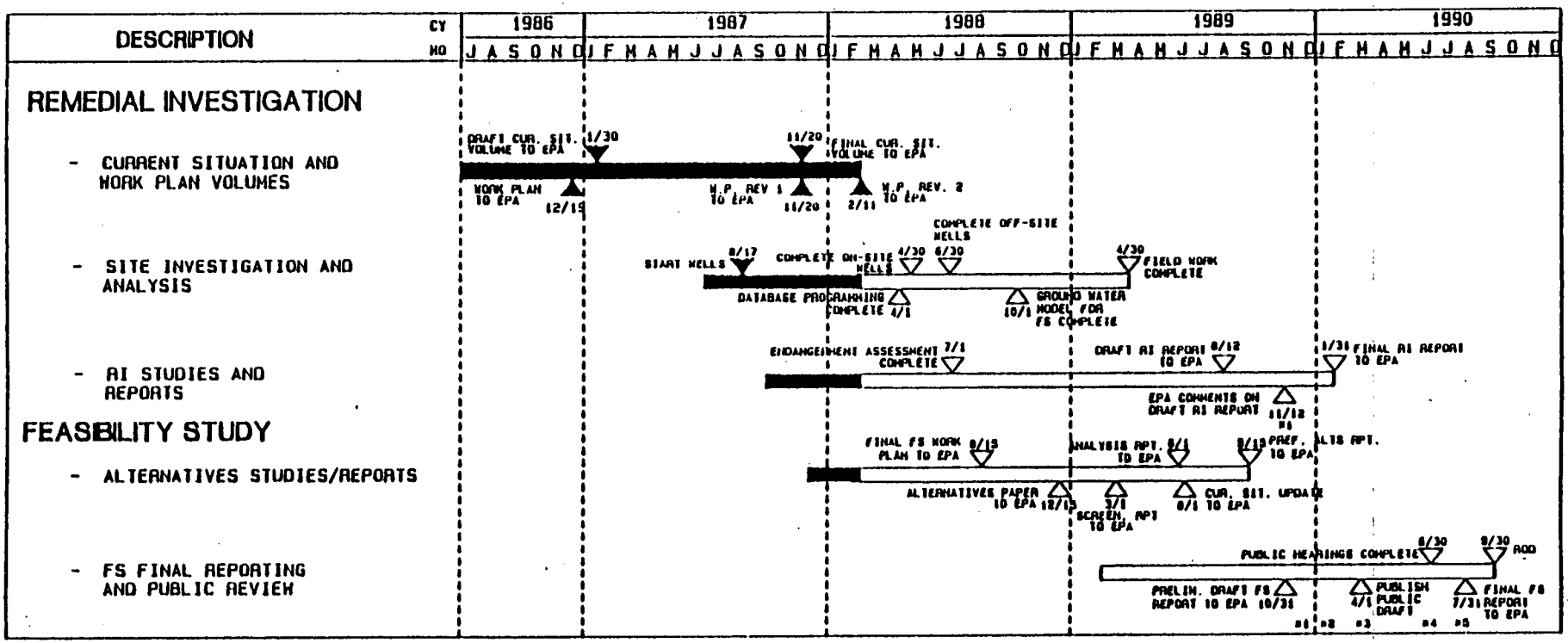
* Due to U.S. Environmental Protection Agency
** Due to U.S. Department of Energy

(1) Due dates from contract Modification M013

N/A - Not contained in the RI/FS Summary Project Schedule (not applicable)

FIGURE 3-1

FMPC REMEDIAL INVESTIGATION/FEASIBILITY STUDY SUMMARY PROJECT SCHEDULE



LEGEND

MILESTONE-PLANNED ▽-----◇ FORECAST-LATE

MILESTONE-ACTUAL ▼-----◆ ACTUALLY LATE

* NOTES

1. EPA REVIEW AND COMMENT PERIOD FOR DRAFT RI REPORT AND FS PRELIM. DRAFT NOT TO EXCEED 90 CALENDAR DAYS.
2. SIXTY CALENDAR DAYS ASSUMED TO INCORPORATE EPA COMMENTS TO PRELIM. DRAFT FS.
3. EPA REVIEW AND COMMENT PERIOD FOR PUBLIC DRAFT FS NOT TO EXCEED 60 CALENDAR DAYS.
4. THIRTY DAY PUBLIC REVIEW PERIOD, THIRTY DAYS FOR CONDUCT OF PUBLIC HEARINGS.
5. SCHEDULE IMPACTS MAY OCCUR DUE TO SCOPING CHANGE OR LONGER-THAN-PLANNED REVIEW TIMES.

REVISION STATUS		
REV	DATE	REFERENCE
0	6/26/87	BASELINE SCHEDULE
1	2/11/88	WORK PLAN, REV.2

PAGE 1 OF 1

4.0 WORK BREAKDOWN STRUCTURE

4.1 Introduction

This plan is based on the project Work Breakdown Structure (WBS). The WBS is an hierarchical listing of project activities which define the total project. It provides an integrated framework for planning and assigning management and technical responsibilities, as well as monitoring and reporting progress and status of all project activities.

Each task and sub-task in the WBS is assigned a unique number or Element Code. These numbers are used for progress measurement and reporting, and for cost accounting. The WBS, as approved by DOE/WMCO, then becomes the project baseline description and will be changed only through established procedures. All project management facets including work authorization, planning, scheduling, estimating, budgeting, cost collections, problem analysis, and plan maintenance are integrated within the WBS. The due dates listed with the milestones are the contract dates and do not relate to the Work Plan schedule (Figure 3-1). After contractural modifications have been definitized, the due dates will be changed.

4.2 WBS Dictionary

The WBS Dictionary is a tabulation of WBS task code numbers and identifying task titles. Table 4-1 is the WBS Dictionary for this project.

4.3 Work Authorization System

To identify responsible persons for each RI/FS task, ASI periodically issues a Work Authorization Breakdown (WAB). The WAB provides a list of personnel authorized to charge labor to each RI/FS task. The organization, home office, and primary work location are provided for each individual identified. The WAB also identifies tasks which are either permanently or temporarily closed to charging. Labor charges by unauthorized persons, or to closed tasks, are rejected to the cognizant Task Leader for subsequent reconciliation.

Updated versions of the WAB will be distributed under separate cover as personnel changes require. A version of the WAB identifying key personnel assigned to each task is provided in Appendix B.

Table 4-1

FERNALD RI/FS PROJECT

WORK BREAKDOWN STRUCTURE DICTIONARY

Task	Sub-Task	Sub-Sub-Task	Title
1.0			**Description of Current Situation**
	1.1		Description of Current Situation
2.0			**Remedial Investigation Work Plan Requirements**
	2.1		Remedial Investigation Work Plan Requirements
3.0			**Site Investigation**
	3.2		Sub-Surface Hydrology
	3.3		Surface Water and Sediment
	3.4		Radiation Measurements
		3.4.1	Radiation Measurements
		3.4.2	Soils Sampling
	3.5		Biological Sampling
	3.6		Air Monitoring
	3.7		Facilities Testing
		3.7.1	Tanks/Sumps
		3.7.2	K-65 Sampling
		3.7.3	Selected Historical Sites
	3.8		Drum Bailing Area Site Investigation
4.0			**Site Investigation Analysis**
	4.1		Database Management
	4.2		Environmental Assessment/Data Analysis
	4.3		Air Modeling
	4.4		Ground Water Modeling
	4.5		Risk Assessment
5.0			**Lab and Bench Scale Studies**
	5.1		Lab and Bench Scale Studies
6.0			**Remedial Investigation Report**
	6.1		Remedial Investigation Report
7.0			**Project Management**
	7.1		Program Management
	7.2		Quality Assurance
	7.3		Health and Safety
8.0			**Community Relations**
	8.1		Community Relations

Table 4-1 (Continued)

FERNALD RI/FS PROJECT

WORK BREAKDOWN STRUCTURE DICTIONARY

Task	Sub-Task	Sub-Sub-Task	Title
9.0			Other Requirements
	9.1		RCRA Overpack
	9.2		EP Toxicity Laboratory
	9.3		Zone of Influence
	9.4		RCRA Wells
	9.5		K-65 Silos
	9.6		Thorium Transportation Environmental Assessment
	9.7		Underground Kerosene Storage Tank Removal
	9.8		RCRA Ground Water Sampling
	9.9		Barium Chloride Sampling Program
	9.10		Revision of Thorium Environmental Assessment
	9.11		Abandoned-in-Place
	9.12		K-65 Silos Interim Remediation
	9.13		Barium Chloride Rinsate Sampling
	9.14		K-65 Revised Sampling Plan
10.0			Update Description of Current Situation
	10.1		Update Description of Current Situation
11.0			Feasibility Study Work Plan
	11.1		Feasibility Study Work Plan
12.0			Development of Remedial Technology Alternatives
	12.1		Development of Remedial Technology Alternatives
13.0			Initial Screening of Alternatives
	13.1		Initial Screening of Alternatives
14.0			Detailed Analysis of Alternatives
	14.1		Detailed Analysis of Alternatives
15.0			Selection of Preferred Alternatives
	15.1		Selection of Preferred Alternatives
16.0			Feasibility Study Draft Report
	16.1		Feasibility Study Draft Report
17.0			Final Feasibility Study Report
	17.1		Final Feasibility Study Report

5.0 REPORTING

5.1 Reporting Requirements

Reporting requirements for the RI/FS are established in the Reporting Requirements Checklist (Form OMB No. 1900-1401) issued as Attachment 2 to contract modification No. M014 in December 1987. Technical reports and task deliverables are described in Section 3 of this plan. General Management and Schedule/Labor/Cost reports are summarized in Table 5-1.

5.2 Reports

The following paragraphs describe the general management and schedule/cost/labor reports issued for the RI/FS.

5.2.1 Management Plan

This document is the ASI Fernald FMPC RI/FS Project Management Plan. It describes the ASI approach to effectively conducting and controlling the project. It presents an overview of the project, the breakdown of the various tasks (the WBS), the order in which these tasks will be performed, and the means used to measure and control the project costs and schedules.

5.2.2 Monthly Technical Progress Report

This report is a narrative assessment of the status of work being performed during the report month. The ASI Project Director will issue this report to WMCO monthly. Any subcontractors will report to the ASI Project Director the status of their respective parts of the project for inclusion in this report.

These reports will highlight changes in objectives, changes to procedures and/or technical approach, significant schedule and/or cost deviations from the established baselines, causative factors and actions proposed or being taken to resolve them, and factors which may create future deviations.

These reports will identify all open items requiring action, when these open items must be resolved, and the impacts if resolution is delayed.

These reports will also include project performance analysis. ASI will integrate the subcontractors' performance reports into the total project performance report to WMCO.

5.2.3 Annual Summary Report

This report provides a concise top level summary of schedule, labor, and cost performance against the baseline plans. Most of the data is presented graphically. The format permits rapid visual comparison of schedule, labor, and cost data. There are three segments: a cost status graph, a labor status graph, and a milestone chart. The cost and labor graphs are cumulative presentations. Planned and actual numerical data presented are for the periods specified. Labor and cost variances are shown on a monthly and a cumulative basis. This report is due to WMCO on November 5.

5.2.4 RI/FS Summary Project Schedule

The Fernald RI/FS Summary Project schedule is presented in Figure 3-1. This schedule will be updated and revised as required.

5.2.5 Monthly Milestone Schedule/Status Report

Monthly milestone status is included in the Monthly Technical Progress Report described in Section 5.2.2.

5.2.6 Labor Plan

Cost account plans are prepared by the RI/FS management team to provide time-phased resources and labor utilization profiles. These plans provide the basis for performance measurement reporting and are updated as required.

5.2.7 Labor Management Report

The "Labor Management Report" compares labor resource utilization with the "Labor Plan." Both DOE and participant management use it for tracking, controlling, and allocating labor resources. This report contains actual labor status for the reporting and prior periods, and estimates of labor for the remainder of the fiscal year and the balance of the effort. The Labor Management Report is contained in the Monthly Technical Progress Report.

5.2.8 Cost Management Report

The "Cost Management Report" reports the cost status of the project and is compared with the current baseline budget, or "Cost Plan." Both DOE and participant management use it for allocating, tracking, and controlling costs. This form contains actual cost status for the current reporting period, prior periods, and estimates of dollar costs for the

remainder of the fiscal year and the balance of the contract. The Cost Management Report is contained in the Monthly Technical Progress Report.

5.3 Distribution of Reports

The reports identified in sub-section 5.2 are distributed in accordance with the Table 5-2. Technical reports, topical reports, and correspondence are distributed in accordance with Table 5-3.

Table 5-1

MANAGEMENT AND SCHEDULE/LABOR/COST REPORTS

Description	Frequency
Management Plan	X
Status Report	M(1)
Summary Report	Y
RI/FS Summary Project Schedule	Y
Labor Plan	X
Milestone Schedule Status	M(1)
Labor Management Report	M(1)
Cost Management Report	M(1)

Frequency Codes:
X: With proposal/bid/application or change
M: Monthly
Y: Yearly

(1) Contained in the Monthly Technical Progress Report due to WMCO by the 20th of each month.

Table 5-2

DISTRIBUTION OF REPORTS

Report Description	Distribution List
Management Plan	List 1
Status Report	List 2
Summary Report	List 1
RI/FS Summary Project Schedule	List 2
Labor Plan	List 3
Milestone Schedule Status	List 2
Labor Management Report	List 2
Cost Management Report	List 2

List Identification	Distribution (Minimum)
List 1	ASI Project Director ASI Site Manager ASI Task Leaders ASI Project Management Personnel IT Technical Manager IT On-Site Technical Manager IT Task Leaders WMCO C.O.T.R. WMCO Contracts DOE C.O.T.R.
List 2	Same as List 1, with the addition of: ASI Sub-Task Leaders IT Sub-Task Leaders
List 3	ASI Project Director ASI Task Leaders ASI Project Management Personnel IT Technical Manager IT On-Site Technical Manager IT Task Leaders WMCO C.O.T.R. WMCO Contracts

Table 5-3

DISTRIBUTION OF TECHNICAL REPORTS, TOPICAL REPORTS, AND ALL CORRESPONDENCE

Originator	Distribution (Minimum)
Sub-Contractors	ASI Project Director* ASI Task/Team Leaders Records (File Copy) Other Effected ASI Personnel Internal Subcontractor
ASI	Internal ASI IT Technical Manager IT On-Site Technical Manager IT Task Leader WMCO C.O.T.R. WMCO Contracts DOE C.O.T.R. Records (File Copy)

* Addressee of all sub-contractor correspondence.

6.0 INFORMATION MANAGEMENT

6.1 Project Files

The project establishes and maintains a central filing system at the project site office. The project file system consists of:

- A subject file with the following major categories:

  1.0 Project Management
  2.0 Organization and Management
  3.0 Radiation Measurement
  4.0 Surface Soils Sampling
  5.0 Ground Water Sampling
  6.0 Subsurface Soils Sampling
  7.0 Surface Water and Sediment Sampling
  8.0 Biological Resources Sampling
  9.0 Facilities Testing/Air Investigation
  10.0 Site Investigation
  11.0 Site Investigation Analysis
  12.0 Project Deliverables - Task 3
  13.0 Project Deliverables - Task 4
  14.0 Quality Assurance
  15.0 Task 9

  A complete filing system table of contents is contained in Appendix C.

- A correspondence file cross referenced to originator, date and/or letter number.

7.0 LABOR RESOURCE MANAGEMENT

7.1 Introduction

Over the life of the RI/FS contract, ASI is required by the Small Business Administration to achieve a minimum of 55% of the total cost of labor, as defined in Section 7.2. All future contract modification proposals will be prepared to meet or exceed the overall contract 55%/45% guideline. Periodic status will be provided.

7.2 55%/45% Computation

The following direct labor costs are included in determining the total cost of labor hours:

ASI: Fully Burdened Direct Labor
Travel
Field Office Associated Costs
- o Rent
- o Postage
- o Utilities
- o Reproduction
- o Office Supplies
- o Etc.

IT: Fully Burdened Direct Labor
Travel

The following costs are not included in the computations, but are shown separately on the status reports:

ASI: On-Site Support
Materials
Special Testing

IT: Materials

Penndrill

Analytical Laboratory

APPENDIX A

MILESTONE DESCRIPTION SHEETS

88

MILESTONE #FMPC-RI/FS-1-1
DUE DATE: OCTOBER 30, 1987

TITLE: Issue final draft Description of Current Situation Volume to DOE/WMCO

DESCRIPTION: Revise original current situation volume based on USEPA and OEPA comment responses. Perform necessary editing and word processing. Transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Comment responses received at IT word processing not later than September 29, 1987.

2. Draft comment responses to participants by 10/12/87.

3. Final review of comment responses by ASI, WMCO, and DOE complete by 10/14/87.

4. Final Draft to DOE/WMCO by 10/30/87.

RESPONSIBILITY:

R. Lenyk

40

98

MILESTONE #FMPC-RI/FS-1-2
DUE DATE: NOVEMBER 16, 1987

TITLE: Issue final draft Description of Current Situation Volume to DOE/WMCO

DESCRIPTION: Revise Final Draft Current Situation Volume to DOE/WMCO for review. Perform necessary editing and word processing. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. DOE/WMCO final review complete and comments to ASI by 11/6/87.

2. Day-to-day slip will occur for any delays in assumption item No. 1.

3. No additional round of U.S. EPA/OEPA comments.

RESPONSIBILITY:

R. Lenyk

41

88

MILESTONE #FMPC-RI/FS-2-1
DUE DATE: OCTOBER 29, 1987

TITLE: Issue final draft RI/FS Work Plan, Sampling Plans, and QAPP to DOE/WMCO

DESCRIPTION: Revise original volumes based on resolved USEPA and OEPA comment responses. Perform necessary editing and word processing. Transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Final USEPA/OEPA comments on 8/24/87 submittal received not later than 10/6/87.

2. ASI/WMCO/DOE final review and reconciliation of USEPA/OEPA comments complete by 10/16/87.

3. Final draft to WMCO/DOE for review on 10/29/87.

RESPONSIBILITY:

R. Lenyk

42

88

MILESTONE #FMPC-RI/FS-2-2
DUE DATE: NOVEMBER 16, 1987

TITLE: Issue final RI/FS Work Plan, Sampling Plans, and QAPP to DOE/WMCO

DESCRIPTION: Revise final draft volumes based on resolved USEPA and OEPA comment responses. Perform necessary editing and word processing. Incorporate comments from WMCO/DOE review of final draft. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Final DOE/WMCO comments to ASI by 11/5/87.

2. Day-to-day slip will occur for any delays in Assumption item No. 1.

RESPONSIBILITY:

R. Lenyk

43

88

MILESTONE #FMPC-RI/FS-3-1
DUE DATE: APRIL 1, 1988

TITLE: Complete Subsurface Soil Sampling

DESCRIPTION: To provide detailed information on the subsurface conditions within the FMPC that may define or influence contaminant migration pathways. The distribution of sampling points is in large part dictated by the ground water investigation.

ASSUMPTIONS:

1. The soils and sediments under the FMPC are uniform enough to be adequately characterized with the soils boring program defined in the Phase 1 Work Plan.

2. Adequate samples will be collected using generally available sampling equipment and procedures.

3. That boreholes will not be shifted away from potential source areas due to other considerations in the work plan.

4. Data gaps may occur due to flowing sands or clays that cannot be collected without delaying the well installation while extraordinary sampling equipment is developed.

5. Undisturbed samples cannot be collected using cable tool equipment.

RESPONSIBILITY:

G. Gaillot

44

88

MILESTONE #FMPC-RI/FS-3-2
DUE DATE: MARCH 1, 1988

TITLE: Complete Installation of On-Site Wells

DESCRIPTION: Complete 100, 200, 300 and possibly 400 series wells as specified in the Work Plan.

ASSUMPTIONS:

1. Appropriate approvals of the work plan, drilling procedures, sampling procedures and well design are received.

2. Assume access to all sites is provided by DOE/WMCO.

3. Access is not restricted due to heavy rains or snow which creates unduly soft ground.

4. An acceptable purge and development water disposal procedure is developed.

RESPONSIBILITY:

G. Gaillot

45

88

MILESTONE #FMPC-RI/FS-3-3
DUE DATE: MARCH 1, 1989

TITLE: Complete Groundwater Measurements

DESCRIPTION: Take monthly water level measurements on all wells on the FMPC and designated off site wells.

ASSUMPTIONS:

1. Access is available for all wells in the program.

RESPONSIBILITY:

G. Gaillot

46

MILESTONE #FMPC-RI/FS-4-1
DUE DATE: APRIL 1, 1988

TITLE: Complete Database Programming and Documentation

DESCRIPTION: Provide an integrated site specific data base containing environmental, data for use in support of RI/FS data reduction, analysis, and modeling. Environmental data will include all data collected in the Remedial Investigation. Provide code documentation and user manuals. Provide programming support to RI/FS technical staff members as requested.

ASSUMPTIONS:

1. Actual QA/QC data (calibration, instrument sensitivity/limits of detection, chain-of-custody, etc.) must be accommodated within the data base.

2. Historical data will be provided by WMCO in a format suitable for direct electronic transfer.

3. ASI will maintain technical and administrative control over data base design, use, and modification.

4. Data base capabilities and use will be extended into the FS phase.

5. The data base will be the Flow Gemini System, incorporating SAS, SAS Graph, Auto CAD, and CPS-PC into the overall scheme.

RESPONSIBILITY:

J. Loving

88

MILESTONE #FMPC-RI/FS-4-2
DUE DATE: APRIL 1, 1988

TITLE: Complete Groundwater Model for Remedial Investigation

DESCRIPTION: Computer simulation will be used to determine ground water flow rates and directions, quantify recharge, relate water quality to potential sources, determine source loading rates, and predict contaminant transport. The model will be used to evaluate remedial alternatives under the FS.

ASSUMPTIONS:

1. Drilling and well completion will be done on schedule.

2. Data are gathered from wells and surface waters as scheduled.

3. The well drilling program confirms the general understanding of the subsurface geology.

4. Acceptable model verification can be achieved for the 3-dimensional transport portions of the model.

RESPONSIBILITY:

G. Gaillot

48

88

MILESTONE #FMPC-RI/FS-4-3
DUE DATE: JULY 1, 1988

TITLE: Endangerment Assessment

DESCRIPTION: To assess the potential human health and environmental effects posed by exposure to radioactive and chemical contaminants from the FMPC under the no-action alternative.

ASSUMPTIONS:

1. The Remedial Investigation in Phase I of the Work Plan will identify all pathways for public exposure. If a Phase II is required to complete the identification of pathways, the assessment will be delayed.

RESPONSIBILITY:

J. Yeasted

49

88

MILESTONE #FMPC-RI/FS-4-4
DUE DATE: OCTOBER 1, 1988

TITLE: Complete Ground Water Model for Feasibility Study

DESCRIPTION: Computer simulation will be used to determine ground water flow rates and direction, quantify recharge, relate water quality to potential sources, determine source loading rates, and predict contaminant transport.

ASSUMPTIONS:

1. Assume that the model is complete and calibrated under the Remedial Investigation Work Plan.

RESPONSIBILITY:

G. Gaillot

50

88

MILESTONE #FMPC-RI/FS-5-1
DUE DATE: JULY 31, 1988

TITLE: Submit Laboratory and Bench Scale Study Report to DOE/WMCO

DESCRIPTION: Prepare report on results of the laboratory and bench scale studies performed under Task 5 of the RI/FS. Perform necessary editing and word processing. Incorporate comments from DOE/WMCO review of draft. Revise as required and transmit 30 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Draft report submitted to DOE/WMCO for review not later than June 15, 1988.

2. Final DOE/WMCO comments received at ASI by July 5, 1988.

3. Day-to-day slip will occur for any delays in items 1 or 2.

4. No external agency reviews required.

5. Delays in completion of well installation and data analysis will require re-examination of milestone completion date.

6. No changes in report scope, content, or format.

RESPONSIBILITY:

J. Broscious

51

88

MILESTONE #FMPC-RI/FS-6-1
DUE DATE: DECEMBER 12, 1988

TITLE: Submit draft RI Report to DOE/WMCO for review

DESCRIPTION: Prepare the draft RI report for review by WMCO. Assess WMCO integrated review comments for incorporation into final report. Perform necessary editing and word processing. Transmit 20 copies to WMCO and 5 Copies to DOE.

ASSUMPTIONS:

1. No external agency reviews required.
2. Delays in completion of field work or data analysis/reduction will require re-examination of milestone completion date.
3. No changes in report scope, content, or format.
4. Changing the format to mulitple remedial investigations based on operable units may affect the schedule.

RESPONSIBILITY:

J. Yeasted

52

MILESTONE #FMPC-RI/FS-6-2
DUE DATE: JUNE 15, 1989

TITLE: Issue final RI report to EPA

DESCRIPTION: Incorporate comments from DOE/WMCO review of draft final RI report, and prepare and issue final RI Report to DOE. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. No external agency reviews required.
2. Delays in completion of field work or data analysis/reduction will require re-examination of milestone completion date.
3. No changes in report scope, content, or format.
4. Changing the format to mulitple remedial investigations based on operable units may affect the schedule.

RESPONSIBILITY:

J. Yeasted

MILESTONE #FMPC-RI/FS-7-1
DUE DATE: OCTOBER 1, 1987

TITLE: Revise and Issue Site-Specific Safety Plan

DESCRIPTION: Reevaluate work methods and practices being performed and determine what, if any, changes need to be incorporated into the Site-Specific Safety Plan. Any changes will be submitted to WMCO and ASI for approval before being implemented into the field activities.

ASSUMPTIONS:

1. Methods of well installation will continue to be performed in the manner originally prescribed in the Work Plan.

2. The drill site geologist will continue to perform health and safety monitoring during well installation.

3. The site Health and Safety Officer will verify that correct monitoring methods are being used and will make recommendations in accordance with monitoring results.

RESPONSIBILITY:

R. Greene

88

MILESTONE #FMPC-RI/FS-7-2
DUE DATE: DECEMBER 15, 1987

TITLE: Perform quarterly QA Field Audit and Issue Report to DOE/WMCO

DESCRIPTION: Plan, perform, and report, an evaluation of compliance with all aspects of the Quality Assurance Project Plan (QAPP). Document the audit results and issue a report to responsible management for review and follow-up action as required.

ASSUMPTIONS:

1. Frequent audits and surveillances will be performed by the on-site Quality Assurance Officer (QAO) to provide real time verification of activities effecting quality.

2. The corporate QA audit will overview effectiveness of the on-site QAO verification effort as well as spot check activities occurring during performance of the audit.

3. Completion of required corrective action will be verified through written communication, re-audit, or other appropriate means. An audit closure report will be issued after acceptance and verification of any required corrective action.

4. Audit scheduling will be re-examined should significant changes to the QAPP occur or if it is suspected that project quality objectives are in jeopardy due to indications of major breakdowns in the QA program.

RESPONSIBILITY:

M. Nicol

55

88

MILESTONE #FMPC-RI/FS-7-3
DUE DATE: MARCH 15, 1988

TITLE: Perform quarterly QA Field Audit and Issue Report to DOE/WMCO

DESCRIPTION: Plan, perform, and report, an evaluation of compliance with all aspects of the Quality Assurance Project Plan (QAPP). Document the audit results and issue a report to responsible management for review and follow-up action as required.

ASSUMPTIONS:

1. Frequent audits and surveillances will be performed by the on-site Quality Assurance Officer (QAO) to provide real time verification of activities effecting quality.

2. The corporate QA audit will overview effectiveness of the on-site QAO verification effort as well as spot check activities occurring during performance of the audit.

3. Completion of required corrective action will be verified through written communication, re-audit, or other appropriate means. An audit closure report will be issued after acceptance and verification of any required corrective action.

4. Audit scheduling will be re-examined should significant changes to the QAPP occur or if it is suspected that project quality objectives are in jeopardy due to indications of major breakdowns in the QA program.

RESPONSIBILITY:

M. Nicol

56

88

MILESTONE #FMPC-RI/FS-7-4
DUE DATE: JUNE 15, 1988

TITLE: Perform quarterly QA Field Audit and Issue Report to DOE/WMCO

DESCRIPTION: Plan, perform, and report, an evaluation of compliance with all aspects of the Quality Assurance Project Plan (QAPP). Document the audit results and issue a report to responsible management for review and follow-up action as required.

ASSUMPTIONS:

1. Frequent audits and surveillances will be performed by the on-site Quality Assurance Officer (QAO) to provide real time verification of activities effecting quality.

2. The corporate QA audit will overview effectiveness of the on-site QAO verification effort as well as spot check activities occurring during performance of the audit.

3. Completion of required corrective action will be verified through written communication, re-audit, or other appropriate means. An audit closure report will be issued after acceptance and verification of any required corrective action.

4. Audit scheduling will be re-examined should significant changes to the QAPP occur or if it is suspected that project quality objectives are in jeopardy due to indications of major breakdowns in the QA program.

RESPONSIBILITY:

M. Nicol

57

88

MILESTONE #FMPC-RI/FS-7-5
DUE DATE: SEPTEMBER 15, 1988

TITLE: Perform quarterly QA Field Audit and Issue Report to DOE/WMCO

DESCRIPTION: Plan, perform, and report, an evaluation of compliance with all aspects of the Quality Assurance Project Plan (QAPP). Document the audit results and issue a report to responsible management for review and follow-up action as required.

ASSUMPTIONS:

1. Frequent audits and surveillances will be performed by the on-site Quality Assurance Officer (QAO) to provide real time verification of activities effecting quality.

2. The corporate QA audit will overview effectiveness of the on-site QAO verification effort as well as spot check activities occurring during performance of the audit.

3. Completion of required corrective action will be verified through written communication, re-audit, or other appropriate means. An audit closure report will be issued after acceptance and verification of any required corrective action.

4. Audit scheduling will be re-examined should significant changes to the QAPP occur or if it is suspected that project quality objectives are in jeopardy due to indications of major breakdowns in the QA program.

RESPONSIBILITY:

M. Nicol

58

88

MILESTONE #FMPC-RI/FS-7-6
DUE DATE: DECEMBER 15, 1988

TITLE: Perform quarterly QA Field Audit and Issue Report to DOE/WMCO

DESCRIPTION: Plan, perform, and report, an evaluation of compliance with all aspects of the Quality Assurance Project Plan (QAPP). Document the audit results and issue a report to responsible management for review and follow-up action as required.

ASSUMPTIONS:

1. Request audits and surveillances will be performed by the on-site Quality Assurance Officer (QAO) to provide real time verification of activities effecting quality.

2. The corporate QA audit will overview effectiveness of the on-site QAO verification effort as well as spot check activities occurring during performance of the audit.

3. Completion of required corrective action will be verified through written communication, re-audit, or other appropriate means. An audit closure report will be issued after acceptance and verification of any required corrective action.

4. Audit scheduling will be re-examined should significant changes to the QAPP occur or if it is suspected that project quality objectives are in jeopardy due to indications of major breakdowns in the QA program.

RESPONSIBILITY:

M. Nicol

59

88

MILESTONE #FMPC-RI/FS-7-7
DUE DATE: MAY 15, 1989

TITLE: Perform QA Close-out audit and Issue Report to DOE/WMCO

DESCRIPTION: Plan, perform, and report, an evaluation audit to assure all previously identified deficiencies and nonconformances have been adequately resolved. Verify that project QA records requirements have been satisfied.

ASSUMPTIONS:

1. Completion of the required corrective actions from previous audits have been accomplished.

2. Delays in completion of field work or data analysis/reduction will require re-examination of the audit schedule.

RESPONSIBILITY:

M. Nicol

60

88

MILESTONE #FMPC-RI/FS-8-1
DUE DATE: SEPTEMBER 30, 1987

TITLE: Complete Initial RI/FS Slide Presentation

DESCRIPTION: Prepare 35mm slides to be used in a 20-30 minute presentation on RI/FS background, current status, and planned activities.

ASSUMPTIONS:

1. Historical slides will be provided by WMCO.

2. An original plus 2 copies of the final presentation is required.

RESPONSIBILITY:

R.T. Wilde

61

88

MILESTONE #FMPC-RI/FS-11-1
DUE DATE: AUGUST 1, 1988

TITLE: Issue final FS Work Plan to DOE/WMCO

DESCRIPTION: Prepare and complete the Work Plan for the FS portion of the FMPC RI/FS. Perform necessary editing and word processing. Incorporate comments from DOE/WMCO review of draft. Incorporate comment responses from USEPA/OEPA review. Revise as required and transmit 20 copies to WMCO and 5 copies DOE.

ASSUMPTIONS:

1. Internal review draft (25 copies) submitted to DOE/WMCO for review not later than 4/10/88. EPA comment draft (10 copies) complete by 5/20/88.

2. Integrated DOE/WMCO comments on internal review draft received at ASI by 5/1/88.

3. Integrated USEPA/OEPA comments on comment draft received by June 15, 1988.

4. Day-for-day slip will occur for any delays in items 1, 2 or 3.

5. No second round of USEPA/OEPA comments.

6. No changes in plan, scope, general content or format.

RESPONSIBILITY:

J. Yeasted

62

88

MILESTONE #FMPC-RI/FS-13-1
DUE DATE: SEPTEMBER 9, 1988

TITLE: Submit final report on Initial Screening of Alternatives to DOE/WMCO

DESCRIPTION: Prepare report on results of RI/FS Task 13 screening of remedial action alternatives. Perform necessary editing and word processing. Incorporate comments from DOE/WMCO review of draft. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Draft report submitted to DOE/WMCO for review not later than July 25, 1988.

2. Final DOE/WMCO comments received at ASI by August 15, 1988.

3. Day-for-day slip will occur for any delays in items 1 or 2.

4. No external agency reviews required.

5. Delays in completion of field work or data analysis/reduction will require re-examination of milestone completion date.

6. No changes in report scope, content, or format.

RESPONSIBILITY:

J. Broscious

63

88

MILESTONE #FMPC-RI/FS-14-1
DUE DATE: NOVEMBER 14, 1988

TITLE: Submit final report on detailed analysis of remedial action alternatives to DOE/WMCO

DESCRIPTION: Prepare report on detailed analysis of remedial action alternatives. Perform necessary editing and word processing. Incorporate comments from DOE/WMCO review of draft. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Draft report submitted to DOE/WMCO for review not later than October 1, 1988.

2. Final DOE/WMCO comments received at ASI by October 20, 1988.

3. Day-for-day slip will occur for any delays in items 1 or 2.

4. No external agency reviews required.

5. Delays in completion of field work or data analysis/reduction will require re-examination of milestone completion date.

6. No changes in report scope, content, or format.

7. Changing the format to multiple feasibility studies based on operable units may impact the schedule.

RESPONSIBILITY:

J. Broscious

64

88

MILESTONE #FMPC-RI/FS-15-1
DUE DATE: MARCH 1, 1989

TITLE: Submit final report on the evaluation and selection of preferred remedial action alternatives to DOE/WMCO

DESCRIPTION: Prepare report evaluation preferred remedial action alternatives. Perform necessary editing and word processing. Incorporate comments from DOE/WMCO review of draft. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Draft report submitted to DOE/WMCO for review not later than February 1, 1989.

2. Final DOE/WMCO comments received at ASI by March 5, 1989.

3. Day-for-day slip will occur for any delays in items 1 or 2.

4. No external agency reviews required.

5. Delays in completion of field work or data analysis/reduction will require re-examination of milestone completion date.

6. No changes in report scope, content, or format.

7. Changing the format to multiple feasibility studies based on operable units may impact the schedule.

RESPONSIBILITY:

J. Broscious

65

88

MILESTONE #FMPC-RI/FS-16-1
DUE DATE: MAY 15, 1989

TITLE: Submit final draft FS Report to DOE/WMCO

DESCRIPTION: Prepare a comment draft FS Report for submittal to DOE/WMCO. Perform necessary editing and word processing. Incorporate comments from DOE/WMCO review of draft. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Preliminary draft report submitted to DOE/WMCO for review not later than March 15, 1989.

2. Final DOE/WMCO comments on preliminary draft received at ASI by April 15, 1989.

3. Day-for-day slip will occur for any delays in items 1 or 2.

4. No external agency reviews required.

5. Delays in completion of field work or data analysis/reduction will require re-examination of milestone completion date.

6. No changes in report scope, content, or format.

7. Changing the format to multiple feasibility studies based on operable units may impact the schedule.

RESPONSIBILITY:

J. Broscious

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MILESTONE #FMPC-RI/FS-17-1
DUE DATE: JULY 15, 1990

TITLE: Submit the final FS Report to DOE/WMCO

DESCRIPTION: Submit the final FS Report to DOE/WMCO, incorporating comment responses resulting from external agency and public reviews. Perform necessary editing and word processing. Incorporate DOE/WMCO integrated comments. Revise as required and transmit 20 copies to WMCO and 5 copies to DOE.

ASSUMPTIONS:

1. Draft final report available for DOE/WMCO review by November 1, 1989.

2. Integrated DOE/WMCO comments on draft report received not later than December 15, 1989.

3. Public hearings complete by December 31, 1989.

4. Comment responses to public comments complete and reviewed by January 10, 1990.

5. Day-for-day slip will occur if any delay in Assumption items 1, 2, 3, or 4.

6. No other field or data analysis delays will occur.

7. No changes in report scope, content, or format.

8. Changing the format to multiple feasibility studies based on operable units may impact the schedule.

RESPONSIBILITY:

J. Broscious

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APPENDIX B

WORK AUTHORIZATION BREAKDOWN

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 1.1 Description of Current Situation

START DATE: 08/86
END DATE: 11/87

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Current Situation Volume (Completed)

STATUS: Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	R. Lenyk	ASI	Fernald	Fernald

TASK MEMBERS:

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 2.1 Remedial Investigation Work Plan Requirements

START DATE: 07/86
END DATE: 03/88

PRIMARY WORK LOCATION: Fernald (Addendums)

DELIVERABLES: Work Plan Volumes (Work Plan, Sampling Plan, H & S Plan, QA Program Plan)
- Final Draft (Completed)
- Final (Completed)

STATUS: Work Plan approved by U.S. EPA
Addendums will supplement the Work Plan for any changes to the approved document

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Yeasted, J.	IT	Pittsburgh	Fernald
TASK MEMBERS:	Ellenberger, T.	IT	Pittsburgh	Fernald
	Gaillot, G.	IT	Pittsburgh	Pittsburgh
	Galbraith, R.	IT	Fernald	Fernald
	Lenyk, R.	ASI	Fernald	Fernald

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TASK: 3.2 Subsurface Hydrology

START DATE: 09/87
END DATE: 04/89

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: On-Site monitoring well drilling complete
Off-Site monitoring well drilling in progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Gaillot, G.	IT	Pittsburgh	Fernald
TASK MEMBERS:	Arndt, M.	ASI	Denver	Fernald
	Baughn, D.	ASI	Oak Ridge	Fernald
	Choate, S.	ASI	Oak Ridge	Fernald
	Davies, W.	IT	Chicago	Fernald
	Dunning, B.	ASI	Denver	Fernald
	Goldberg, M.	ASI	Oak Ridge	Fernald
	Goldberg, S.	ASI	Oak Ridge	Fernald
	Hemline, C.	ASI	Denver	Fernald
	Hoekstra, D.	ASI	Denver	Fernald
	Kolankowski, J.	IT	Pittsburgh	Fernald
	Kyle-Fischer, C.	ASI	Denver	Fernald
	Markert, F.	IT	Pittsburgh	Fernald
	Melroy, C.	ASI	Oak Ridge	Fernald
	Montgomery, W.	IT	Pittsburgh	Fernald
	O'Dell, R.	ASI	Oak Ridge	Fernald
	Oakley, D.	ASI	Oak Ridge	Fernald
	Palecek, L.	IT	Chicago	Fernald
	Pruitt, G.	ASI	Oak Ridge	Fernald
	Slusarski, M.	ASI	Oak Ridge	Fernald
	Sullivan, T.	IT	Chicago	Fernald

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.3 Surface Water and Sediment

START DATE: 05/88
END DATE: 10/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Gaillot, G.	IT	Pittsburgh	Fernald
TASK MEMBERS:	Bowser, D.	ASI	Oak Ridge	Fernald
	Byrd, J.	ASI	Oak Ridge	Fernald
	Davies, W.	IT	Chicago	Fernald
	Dunning, B.	ASI	Denver	Fernald
	Goldberg, M.	ASI	Oak Ridge	Fernald
	Goldberg, S.	ASI	Oak Ridge	Fernald
	Hoekstra, D.	ASI	Denver	Fernald
	Markert, F.	IT	Pittsburgh	Fernald
	Melroy, C.	ASI	Oak Ridge	Fernald
	Montgomery, W.	IT	Pittsburgh	Fernald
	Palecek, L.	IT	Chicago	Fernald
	Shamitko, G.	IT	Pittsburgh	Fernald
	Sobocinski, R.	IT	Pittsburgh	Fernald
	Weick, W.	IT	Pittsburgh	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.4.1 Radiation Measurements

START DATE: 10/87
END DATE: 08/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: Field effort complete

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
SUB-TASK LEADER:	Thomas, B.	IT	Oak Ridge	Fernald
TASK MEMBERS:	Budach, W.	IT	Knoxville	Fernald
	Bunch, P.	ASI	San Diego	Fernald
	Choate, S.	ASI	Oak Ridge	Fernald
	Church, W.	IT	Pittsburgh	Fernald
	Goldberg, M.	ASI	Oak Ridge	Fernald
	Goldberg, S.	ASI	Oak Ridge	Fernald
	Kolankowski, J.	IT	Pittsburgh	Fernald
	Melroy, C.	ASI	Oak Ridge	Fernald
	Nugent, D.	IT	Oak Ridge	Fernald
	Palecek, L.	IT	Chicago	Fernald
	Tryboski, L.	IT	Oak Ridge	Fernald
	Weick, W.	IT	Pittsburgh	Fernald
	Whitesides, J.	IT	Oak Ridge	Fernald

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.4.2 Soils Sampling

START DATE: 11/87
END DATE: 08/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
SUB-TASK LEADER:	Goldberg, S.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Bowser, D.	ASI	Oak Ridge	Fernald
	Budach, W.	IT	Knoxville	Fernald
	Bunch, P.	ASI	San Diego	Fernald
	Byrd, J.	ASI	Oak Ridge	Fernald
	Choate, S.	ASI	Oak Ridge	Fernald
	Dunning, B.	ASI	Denver	Fernald
	Goldberg, M.	ASI	Oak Ridge	Fernald
	Kolankowski, J.	IT	Pittsburgh	Fernald
	Melroy, C.	ASI	Oak Ridge	Fernald
	Nugent, D.	IT	Oak Ridge	Fernald
	Palecek, L.	IT	Chicago	Fernald
	Tryboski, L.	IT	Oak Ridge	Fernald
	Weick, W.	IT	Pittsburgh	Fernald
	Whitesides, J.	IT	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.5 Biological Sampling

START DATE: 09/87
END DATE: 12/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: Endangered species studies in progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Von Loh, J.	ASI	Denver	Denver
TASK MEMBERS:	Bunch, P.	ASI	San Diego	Fernald
	Clark, R.	ASI	Denver	Fernald
	Davis, J.	ASI	Fernald	Fernald
	Flowers, L.	ASI	Albuquerque	Fernald
	Galbraith, R.	IT	Fernald	Fernald
	Hall, L.	ASI	Denver	Denver
	Lortz, P.	ASI	Fernald	Fernald
	Mills, J.	ASI	Fernald	Fernald
	O'Denning, W.	ASI	San Diego	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.6 Air Monitoring

START DATE: /
END DATE: /

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES: None

STATUS: Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Yeasted, J.	IT	Pittsburgh	Pittsburgh

TASK MEMBERS:

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.7.1 Tanks/Sumps

START DATE: 03/88
END DATE: 05/89

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
SUB-TASK LEADER:	Niaki, S.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Dunning, B.	ASI	Denver	Fernald
	Hoekstra, D.	ASI	Denver	Fernald
	Howard, D.	IT	Pittsburgh	Pittsburgh
	Kolankowski, J.	IT	Pittsburgh	Fernald
	Kramer, M.	ASI	Oak Ridge	Fernald
	Weick, W.	IT	Pittsburgh	Fernald
	Whitesides, J.	IT	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.7.3 Facilities Testing

START DATE: 03/88
END DATE: 05/89

PRIMARY WORK LOCATION: Fernald

DELIVERABLES:

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
SUB-TASK LEADER:	Kramer, M.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Church, W.	IT	Pittsburgh	Fernald
	Foard, B.	ASI	Oak Ridge	Fernald
	Hoekstra, D.	ASI	Denver	Fernald
	Kolankowski, J.	IT	Pittsburgh	Fernald
	Kramer, M.	ASI	Oak Ridge	Fernald
	Meyer, R.	ASI	Oak Ridge	Fernald
	Smith, D.	ASI	Oak Ridge	Fernald
	Weick, W.	IT	Pittsburgh	Fernald
	Whitesides, J.	IT	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 3.8 Drum Bailing Area Site Investigation

START DATE: 03/88
END DATE: 08/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES:

STATUS: Final report to be written upon receipt of final laboratory data

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Galbraith, R.	IT	Fernald	Fernald
TASK MEMBERS:	Oakley, D.	ASI	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 4.1 Data Base Management

START DATE: 03/87
END DATE: 11/89

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Loving, J.	ASI	Washington D.C.	Fernald
TASK MEMBERS:	Caldwell, L.	ASI	Washington D.C.	Fernald
	Cutting, P.	ASI	Fernald	Fernald
	Foster, T.	ASI	Fernald	Fernald
	McKay, V.	ASI	Fernald	Fernald
	Sinner, K.	ASI	Washington D.C.	Fernald
	Zajac, R.	IT	Pittsburgh	Pittsburgh

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 4.2 Environmental Assessment/Data Analysis

START DATE: 03/88
END DATE: 06/89

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES: Endangerment Assessment

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Yeasted, J.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Arndt, M.	ASI	Denver	Pittsburgh
	Christman, J.	IT	Pittsburgh	Pittsburgh
	Frazier, J.	IT	Oak Ridge	Oak Ridge
	Gaillot, G.	IT	Pittsburgh	Pittsburgh
	Jacobs, A.	IT	Pittsburgh	Pittsburgh
	Price B.	IT	Pittsburgh	Pittsburgh
	Pupeza, M.	IT	Pittsburgh	Pittsburgh
	Rohaus, D.	IT	Pittsburgh	Pittsburgh
	Sobocinski, R.	IT	Pittsburgh	Fernald
	Whitesides, J.	IT	Oak Ridge	Oak Ridge

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 4.3 Air Modeling

START DATE: /
END DATE: /

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES: None

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Yeasted, J.	IT	Pittsburgh	Pittsburgh

TASK MEMBERS:

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 4.4 Ground Water Modeling

START DATE: 09/87
END DATE: 10/88

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES: Groundwater Model for RI
Groundwater Model for FS

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Gaillot, G.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Allen, N.	IT	Pittsburgh	Pittsburgh
	Arndt, M.	ASI	Denver	Pittsburgh
	Batu, V.	IT	Pittsburgh	Pittsburgh
	Buckle, G.	IT	Pittsburgh	Pittsburgh
	Chiang, L.	IT	Pittsburgh	Pittsburgh
	Djafari, S.	IT	Pittsburgh	Pittsburgh
	Markert, F.	IT	Pittsburgh	Pittsburgh
	O'Conner, A.	IT	Pittsburgh	Pittsburgh
	Pupeza, M.	IT	Pittsburgh	Pittsburgh
	Salguero, J.	IT	Pittsburgh	Pittsburgh
	Snyder, M.	IT	Pittsburgh	Pittsburgh
	Yeasted, J.	IT	Pittsburgh	Pittsburgh

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 4.5 Risk Assessment

START DATE: 06/88
END DATE: 08/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES:

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Frazier, J.	IT	Oak Ridge	Oak Ridge
TASK MEMBERS:	Berger, C.	IT	Oak Ridge	Oak Ridge
	Greene, R.	IT	Oak Ridge	Oak Ridge
	Keegan, P.	IT	Knoxville	Knoxville
	Lock, S.	IT	Knoxville	Knoxville
	Marshall, T.	IT	Knoxville	Knoxville
	Rahal, L.	ASI	Albuquerque	Knoxville
	Sieg, P.	IT	Oak Ridge	Oak Ridge
	Yeasted, J.	IT	Pittsburgh	Pittsburgh

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 5.1 Lab and Bench Scale Studies

START DATE: 10/88
END DATE: 06/89

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES:

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Fernald
	Dalfonso, P.	ASI	Oak Ridge	Fernald
	Hoekstra, D.	ASI	Denver	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 6.1 Remedial Investigation Report

START DATE: 06/88
END DATE: 02/90

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES:

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Yeasted, J.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Dennison, J.	ASI	Oak Ridge	Oak Ridge
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Kramer, M.	ASI	Oak Ridge	Oak Ridge

TASK: 7.1 Program Management

START DATE: 08/86
END DATE: 10/90

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Monthly U.S. EPA Technical Report
Monthly Technical Progress Report

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Wilde, R.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Francis, M.	ASI	Fernald	Fernald
	Galbraith, R.	IT	Fernald	Fernald
	Jobe, J.	ASI	Albuquerque	Fernald
	Lenyk, R.	ASI	Fernald	Fernald
	Meyer, R.	ASI	Oak Ridge	Fernald
	Salmon, M.	IT	Pittsburgh	Fernald
	Yeasted, J.	IT	Pittsburgh	Pittsburgh

TASK: 7.2 Quality Assurance

START DATE: 08/86
END DATE: 10/90

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Periodic Quality Assurance Audit Reports

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Ellenberger, T.	IT	Pittsburgh	Fernald
TASK MEMBERS:	Capacci, M.	IT	Knoxville	Fernald
	Goss, M.	ASI	Oak Ridge	Fernald
	Moore, S.	ASI	Albuquerque	Fernald
	Nicol, M.	ASI	Oak Ridge	Fernald
	Weick, W.	IT	Pittsburgh	Fernald
	Williams, G.	ASI	Albuquerque	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 7.3 Health and Safety

START DATE: 06/87
END DATE: 04/89

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Site Specific Safety Plan (Completed)

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Poliziani, J.	IT	Oak Ridge	Fernald
TASK MEMBERS:	Farmer, A.	ASI	Fernald	Fernald
	Flowers, L.	ASI	Albuquerque	Fernald
	O'Dell, R.	ASI	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 8.1 Community Relations

START DATE: 08/86
END DATE: 10/90

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: RI/FS Slide Presentation (Completed)
RI/FS Video

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Wilde, R.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Galbraith, R.	IT	Fernald	Fernald
	Jobe, J.	ASI	Albuquerque	Fernald
	Lenyk, R.	ASI	Fernald	Fernald
	Wolinsky, S.	ASI	Albuquerque	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.1 RCRA Overpack

START DATE: /
END DATE: /

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: Completed/Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:				
TASK MEMBERS:				

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.2 EP Toxicity Laboratory

START DATE: 10/87
END DATE: 12/88

PRIMARY WORK LOCATION: Oak Ridge

DELIVERABLES: None

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Harvey, J.	IT	Oak Ridge	Oak Ridge
TASK MEMBERS:	Hall, J.	IT	Knoxville	Knoxville

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.3 Zone of Influence

START DATE: 06/87
END DATE: 08/88

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES: Final Zone of Influence Report

STATUS: Final report Submitted

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Gaillot, G.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Buckle, G.	IT	Pittsburgh	Pittsburgh
	Markert, F.	IT	Pittsburgh	Fernald
	Montgomery, W.	IT	Pittsburgh	Fernald
	Price B.	IT	Pittsburgh	Pittsburgh
	Sobocinski, R.	IT	Pittsburgh	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.4 RCRA Wells

START DATE: /
END DATE: /

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: None

STATUS: Completed/Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:				
TASK MEMBERS:				

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.5 K-65 Silos

START DATE: /
END DATE: /

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: None

STATUS: Completed/Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:				
TASK MEMBERS:				

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.6 Thorium Transportation Environmental Assessment

START DATE: /
END DATE: /

PRIMARY WORK LOCATION: Albuquerque

DELIVERABLES: Thorium Transportation Environmental Assessment

STATUS: Completed/Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:				
TASK MEMBERS:				

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.7 Underground Kerosene Storage Tank Removal

START DATE: 01/88
END DATE: 10/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Final Report on Underground Kerosene Storage Tank Removal

STATUS: Completed/Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Galbraith, R.	IT	Fernald	Fernald
TASK MEMBERS:	Farmer, A.	ASI	Fernald	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.8 RCRA Groundwater Sampling

START DATE: 01/88
END DATE: 06/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: RCRA Groundwater Monitoring Report

STATUS: Completed/Closed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Goldberg, S.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Farmer, A.	ASI	Fernald	Fernald
	Goldberg, M.	ASI	Oak Ridge	Fernald
	Loving, J.	ASI	Washington D.C.	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.9 Barium Chloride Sampling Program

START DATE: TBD
END DATE: TBD

PRIMARY WORK LOCATION: Fernald

DELIVERABLES:

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Foard, B.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Bowser, D.	ASI	Oak Ridge	Fernald
	Farmer, A.	ASI	Fernald	Fernald
	Weick, W.	IT	Pittsburgh	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.10 Revision of Thorium EA

START DATE: 05/88
END DATE: 10/88

PRIMARY WORK LOCATION:

DELIVERABLES: Risk Assessment for Storage On-Site

STATUS: Completed

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Odening, W.	ASI	San Diego	San Diego
TASK MEMBERS:	Fabian, P.	IT	Albuquerque	Albuquerque
	Flowers, L.	ASI	Albuquerque	Fernald
	Graham, M.	IT	Albuquerque	Albuquerque
	Keegan, P.	IT	Knoxville	Knoxville
	McBee, S.	ASI	Albuquerque	Albuquerque
	Poliziani, J.	IT	Oak Ridge	Fernald
	Rahal, L.	ASI	Albuquerque	Knoxville
	Smith, D.	ASI	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.11 Abandoned-In-Place

START DATE: 06/88
END DATE: 11/88

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Final Report of Swipe Sample Results

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Meyer, R.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Budach, W.	IT	Knoxville	Fernald
	Farmer, A.	ASI	Fernald	Fernald
	Foster, D.	ASI	Fernald	Fernald
	Melroy, C.	ASI	Oak Ridge	Fernald
	Nugent, D.	IT	Oak Ridge	Fernald
	O'Dell, R.	ASI	Oak Ridge	Fernald
	Thomas, R.	ASI	Albuquerque	Fernald
	Trollinger, E.	ASI	Albuquerque	Fernald
	Tryboski, L.	IT	Oak Ridge	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.12 K-65 Silos Interim Remediation

START DATE: 04/88
END DATE: 10/88

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Sampling Plan

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Harmer, D.	IT	Knoxville	Knoxville
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Foard, B.	ASI	Oak Ridge	Oak Ridge
	Harmer, D.	IT	Knoxville	Knoxville
	Kalcevic, V.	IT	Knoxville	Knoxville
	Meyer, R.	ASI	Oak Ridge	Fernald
	Porter, D.	IT	Knoxville	Knoxville
	Rogers, B.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville
	Smith, D.	ASI	Oak Ridge	Oak Ridge
	Snow, J.	IT	Knoxville	Knoxville

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.13 Barium Chloride Rinsate Sampling

START DATE: TBD
END DATE: TBD

PRIMARY WORK LOCATION: Fernald

DELIVERABLES:

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Foard, B.	ASI	Oak Ridge	Fernald
TASK MEMBERS:	Bowser, D.	ASI	Oak Ridge	Fernald
	Melroy, C.	ASI	Oak Ridge	Fernald
	Meyer, R.	ASI	Oak Ridge	Fernald
	Weick, W.	IT	Pittsburgh	Fernald

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 9.14 K-65 Revised Sampling Plan

START DATE: 03/88
END DATE: 02/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Sampling Plan

STATUS: Sampling Plan Submitted

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Harmer, D.	IT	Knoxville	Knoxville
TASK MEMBERS:	Helsel, R.	IT	Knoxville	Knoxville
	Kaldor, R.	ASI	Albuquerque	Fernald
	Keegan, P.	IT	Knoxville	Knoxville
	Meyer, R.	ASI	Oak Ridge	Fernald
	Porter, D.	IT	Knoxville	Knoxville
	Pullum, H.	IT	Knoxville	Knoxville
	Rogers, B.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 10.1 Update Description of Current Situation

START DATE: 01/89
END DATE: 06/89

PRIMARY WORK LOCATION: Fernald

DELIVERABLES: Updated Description of Current Situation

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Hoekstra, D.	ASI	Denver	Fernald

TASK MEMBERS:

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 11.1 Feasibility Study Work Plan

START DATE: 03/88
END DATE: 10/88

PRIMARY WORK LOCATION: Pittsburgh

DELIVERABLES: Feasibility Study Work Plan

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Yeasted, J.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Harmer, D.	IT	Knoxville	Knoxville
	Howard, D.	IT	Pittsburgh	Pittsburgh

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 12.1 Development of Remedial Technolgy Alternatives

START DATE: 06/88
END DATE: 12/88

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: List of Alternatives

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Gaillot, G.	IT	Pittsburgh	Pittsburgh
	Harmer, D.	IT	Knoxville	Knoxville
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Smith, D.	ASI	Oak Ridge	Oak Ridge

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 13.1 Initial Screening of Alternatives

START DATE: 10/88
END DATE: 03/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Paper on Initial Screening of Alternatives

STATUS: In Progress

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Gaillot, G.	IT	Pittsburgh	Pittsburgh
	Harmer, D.	IT	Knoxville	Knoxville
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Smith, D.	ASI	Oak Ridge	Oak Ridge

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 14.1 Detailed Analysis of Alternatives

START DATE: 01/89
END DATE: 06/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Paper on Detailed Analysis of Alternatives

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
OPERABLE UNIT LEADERS:	Harmer, D.	IT	Knoxville	Knoxville
	Keiser, L.	IT	Pittsburgh	Pittsburgh
	Kramer, M.	ASI	Oak Ridge	Fernald
	Tank, T.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Dennison, J.	ASI	Oak Ridge	Oak Ridge
	Ellenberger, T.	IT	Pittsburgh	Pittsburgh
	Elliot, D.	IT	Knoxville	Knoxville
	Howard, D.	IT	Pittsburgh	Pittsburgh
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Kalcevic, V.	IT	Knoxville	Knoxville
	Keegan, P.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	McGahan, J.	IT	Knoxville	Knoxville
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville
	Sieg, P.	IT	Oak Ridge	Oak Ridge
	Smith, D.	ASI	Oak Ridge	Oak Ridge
	Smith, R.	IT	Pittsburgh	Pittsburgh

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 15.1 Selection of Preferred Alternatives

START DATE: 04/89
END DATE: 09/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Selection of Preferred Alternatives

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
OPERABLE UNIT LEADERS:	Harmer, D.	IT	Knoxville	Knoxville
	Keiser, L.	IT	Pittsburgh	Pittsburgh
	Kramer, M.	ASI	Oak Ridge	Fernald
	Tank, T.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Dennison, J.	ASI	Oak Ridge	Oak Ridge
	Ellenberger, T.	IT	Pittsburgh	Pittsburgh
	Elliot, D.	IT	Knoxville	Knoxville
	Howard, D.	IT	Pittsburgh	Pittsburgh
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Kalcevic, V.	IT	Knoxville	Knoxville
	Keegan, P.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	McGahan, J.	IT	Knoxville	Knoxville
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville
	Sieg, P.	IT	Oak Ridge	Oak Ridge
	Smith, D.	ASI	Oak Ridge	Oak Ridge
	Smith, R.	IT	Pittsburgh	Pittsburgh

WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 15.1 Selection of Preferred Alternatives

START DATE: 04/89
END DATE: 09/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Selection of Preferred Alternatives

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
OPERABLE UNIT LEADERS:	Harmer, D.	IT	Knoxville	Knoxville
	Keiser, L.	IT	Pittsburgh	Pittsburgh
	Kramer, M.	ASI	Oak Ridge	Fernald
	Tank, T.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Dennison, J.	ASI	Oak Ridge	Oak Ridge
	Ellenberger, T.	IT	Pittsburgh	Pittsburgh
	Elliot, D.	IT	Knoxville	Knoxville
	Howard, D.	IT	Pittsburgh	Pittsburgh
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Kalcevic, V.	IT	Knoxville	Knoxville
	Keegan, P.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	McGahan, J.	IT	Knoxville	Knoxville
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville
	Sieg, P.	IT	Oak Ridge	Oak Ridge
	Smith, D.	ASI	Oak Ridge	Oak Ridge
	Smith, R.	IT	Pittsburgh	Pittsburgh

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 16.1 Feasibility Study Draft Report

START DATE: 01/89
END DATE: 10/89

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Draft Feasibility Study Report

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
OPERABLE UNIT LEADERS:	Harmer, D.	IT	Knoxville	Knoxville
	Keiser, L.	IT	Pittsburgh	Pittsburgh
	Kramer, M.	ASI	Oak Ridge	Fernald
	Tank, T.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Dennison, J.	ASI	Oak Ridge	Oak Ridge
	Ellenberger, T.	IT	Pittsburgh	Pittsburgh
	Elliot, D.	IT	Knoxville	Knoxville
	Howard, D.	IT	Pittsburgh	Pittsburgh
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Kalcevic, V.	IT	Knoxville	Knoxville
	Keegan, P.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	McGahan, J.	IT	Knoxville	Knoxville
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville
	Sieg, P.	IT	Oak Ridge	Oak Ridge
	Smith, D.	ASI	Oak Ridge	Oak Ridge
	Smith, R.	IT	Pittsburgh	Pittsburgh

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WORK AUTHORIZATION BREAKDOWN (WAB)

TASK: 17.1 Feasibility Study Final Report

START DATE: 10/89
END DATE: 09/90

PRIMARY WORK LOCATION: Knoxville

DELIVERABLES: Feasibility Study Final Report

STATUS:

	NAME	ORGANIZATION	HOME OFFICE	PRIMARY WORK LOCATION
TASK LEADER:	Broscious, J.	IT	Pittsburgh	Knoxville
OPERABLE UNIT LEADERS:	Harmer, D.	IT	Knoxville	Knoxville
	Keiser, L.	IT	Pittsburgh	Pittsburgh
	Kramer, M.	ASI	Oak Ridge	Fernald
	Tank, T.	IT	Pittsburgh	Pittsburgh
TASK MEMBERS:	Cheatham, T.	ASI	Oak Ridge	Oak Ridge
	Dalfonso, P.	ASI	Oak Ridge	Oak Ridge
	Dennison, J.	ASI	Oak Ridge	Oak Ridge
	Ellenberger, T.	IT	Pittsburgh	Pittsburgh
	Elliot, D.	IT	Knoxville	Knoxville
	Howard, D.	IT	Pittsburgh	Pittsburgh
	Hudson, D.	ASI	Oak Ridge	Oak Ridge
	Jones, B.	IT	Knoxville	Knoxville
	Kalcevic, V.	IT	Knoxville	Knoxville
	Keegan, P.	IT	Knoxville	Knoxville
	Khan, M.	IT	Pittsburgh	Pittsburgh
	McGahan, J.	IT	Knoxville	Knoxville
	Porter, D.	IT	Knoxville	Knoxville
	Shealy, S.	IT	Knoxville	Knoxville
	Shell, K.	IT	Knoxville	Knoxville
	Sieg, P.	IT	Oak Ridge	Oak Ridge
	Smith, D.	ASI	Oak Ridge	Oak Ridge
	Smith, R.	IT	Pittsburgh	Pittsburgh

APPENDIX C

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FILING SYSTEM TABLE OF CONTENTS

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4.1.2 DOE Comments/Responses
4.1.3 Agency Comments/Responses
4.1.4 ASI/IT Comments/Responses
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4.2 Sampling Map
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4.3.2 Procurement Records
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4.6.2 Off-site
4.7 Sample Analysis Requests
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4.8 Field Activity Logs
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4.9.1 Sample Collection Logs
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5.1.1 WMCO Comments/Responses
5.1.2 DOE Comments/Responses
5.1.3 Agency Comments/Responses
5.1.4 ASI/IT Comments/Responses
5.1.5 Change Pages
5.2 Sampling Map
5.3 Equipment List
5.3.1 Calibration Records
5.3.2 Procurement Records
5.4 Permits
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5.5.1 Internal (ASI/IT)
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  - 6.6.3 Shelby Tubes
    - 6.6.3.1 On-site
    - 6.6.3.2 Off-site
  - 6.6.4 Subsurface Soil-Volatiles
    - 6.6.4.1 On-site
    - 6.6.4.2 Off-site
  - 6.6.5 QA/QC - Liquids & Solids
    - 6.6.5.1 On-site

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6.6.6.2 Off-site

6.7 Sample Analysis Requests

6.7.1 Split-Spoon Rinsate

6.7.1.1 On-site

6.7.1.2 Off-site

6.7.2 Subsurface Soils

6.7.2.1 On-site

6.7.2.2 Off-site

6.7.3 Shelby Tubes

6.7.3.1 On-site

6.7.3.2 Off-site

6.7.4 Subsurface Soil-Volatiles

6.7.4.1 On-site

6.7.4.2 Off-site

6.7.5 QA/QC - Liquids & Solids

6.7.5.1 On-site

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6.8.6 Well Development

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6.9 Field Investigation Data and Results

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6.9.1.2 On-site Visual Classification of Soils, Piezometer Installation Sheet/Sketch

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6.9.2.2 Off-site Visual Classification of Soils, Piezometer Installation Sheet/Sketch
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6.9.4 Monitoring Well Completion Checklist
6.9.5 Hermit Data Loggers
6.9.5.1 Hermit Data Loggers (A and B)
6.9.5.2 Hermit Data Loggers (C and D)
6.9.6 Slug Tests
6.9.7 Subsurface Soil Scan
6.9.8 Miscellaneous
6.10 Field Activity Variances
6.11 Field Calculations
6.12 Record of Telecon
6.13 Budget/Schedule
6.14 Analytical Results
6.14.1 On-Site
6.14.2 Off-Site
6.15 Request for Analysis Disposal/Contain Authorization (WMCO)

7.0 SURFACE WATER AND SEDIMENT SAMPLING (Task 3.3)

7.1 Sampling Plan/Procedures
7.1.1 WMCO Comments/Responses
7.1.2 DOE Comments/Responses
7.1.3 Agency Comments/Responses
7.1.4 ASI/IT Comments/Responses
7.1.5 Change Pages
7.2 Sampling Map
7.3 Equipment List
7.3.1 Calibration Records

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7.3.2 Procurement Records
7.4 Permits
7.5 Correspondence
7.5.1 Internal (ASI/IT)
7.5.2 External-Outgoing
7.5.3 External-Incoming
7.6 Chain of Custody Forms
7.6.1 Round #1
7.6.2 Round #2
7.6.3 Round #3
7.6.4 Round #4
7.7 Sample Analysis Requests
7.7.1 Round #1
7.7.2 Round #2
7.7.3 Round #3
7.7.4 Round #4
7.8 Field Activity Logs
7.8.1 Round #1
7.8.2 Round #2
7.8.3 Round #3
7.8.4 Round #4
7.9 Field Investigation Data and Results
7.9.1 Water Quality Field Collection Report
7.9.1.1 Round #1
7.9.1.2 Round #2
7.9.1.3 Round #3
7.9.1.4 Round #4
7.9.2 Sample Collection Log
7.9.2.1 Round #1
7.9.2.2 Round #2
7.9.2.3 Round #3
7.9.2.4 Round #4
7.10 Field Activity Variances

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7.11 Field Calculations
7.12 Record of Telecon
7.13 Budget/Schedule
7.14 Analytical Results
7.14.1 Round #1
7.14.2 Round #2
7.14.3 Round #3
7.14.4 Round #4

8.0 BIOLOGICAL RESOURCES SAMPLING (Task 3.5)

8.1 Sampling Plan/Procedures
8.1.1 WMCO Comments/Responses
8.1.2 DOE Comments/Responses
8.1.3 Agency Comments/Responses
8.1.4 ASI/IT Comments/Responses
8.1.5 Change Pages
8.1.6 Final
8.2 Sampling Map
8.3 Equipment List
8.3.1 Calibration Records
8.3.2 Procurement Records
8.4 Permits
8.5 Correspondence
8.5.1 Internal (ASI/IT)
8.5.2 External-Outgoing
8.5.3 External-Incoming
8.6 Chain of Custody Forms
8.6.1 Radiological
8.6.2 Organic/Inorganic
8.7 Sample Analysis Requests
8.7.1 Radiological

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8.7.2 Organic/Inorganic
8.8 Field Activity Logs
8.8.1 Radiological
8.8.2 Organic/Inorganic
8.9 Field Investigation Data and Results
8.9.1 Radiological
8.9.2 Organic/Inorganic
8.10 Field Activity Variances
8.11 Field Calculations
8.12 Record of Telecon
8.13 Budget/Schedule
8.14 Analytical Results
8.14.1 Radiological
8.14.2 Organic/Inorganic

9.0 FACILITIES TESTING/AIR INVESTIGATION (Task 3.7)

9.1 Sampling Plan/Procedures
9.1.1 WMCO Comments/Responses
9.1.2 DOE Comments/Responses
9.1.3 Agency Comments/Responses
9.1.4 ASI/IT Comments/Responses
9.1.5 Change Pages
9.2 Sampling Map & Drawings
9.3 Equipment List
9.3.1 Calibration Records
9.3.2 Procurement Records
9.4 Permits
9.5 Correspondence
9.5.1 Internal (ASI/IT)
9.5.2 External-Outgoing
9.5.3 External-Incoming
9.6 Chain of Custody Forms

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9.7 Sample Analysis Requests
9.8 Field Activity Logs
9.9 Field Investigation Data and Results
9.10 Field Activity Variances
9.11 Field Calculations
9.12 Record of Telecon
9.13 Budget/Schedule
9.14 Analytical Results

10.0 SOW TASK 3 - SITE INVESTIGATION

10.1 Characterization and Hazard Analysis A3.1
10.2 Hydrogeologic Investigation A3.2
10.2.1 Groundwater Modeling Work Plan
10.3 Groundwater Quality Investigation A3.3
10.4 Soil and Sediment Investigation A3.4
10.5 Surface Water Quality Investigation A3.5
10.6 Air Investigation A3.6
10.7 Off-Site Water Investigation A3.7

11.0 SOW TASK 4 - SITE INVESTIGATION ANALYSIS

11.1 Analysis & Summary of all Site Investigations A4.1
11.2 RI Data Analysis A4.2
11.3 Exposure Assessment A4.3
11.4 Analyze Task A 3.0 Results A4.4
11.5 Develop Groundwater Protection Standards A4.5

12.0 PROJECT DELIVERABLES -- TASK 3

12.1 Hazards Evaluation
12.1.1 Draft(s)
12.1.2 Internal Comments

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12.1.3 External Comments
12.1.4 Final Report
12.1.5 Lab/Field Test Results

12.2 Hydrogeologic Description
12.2.1 Draft(s)
12.2.2 Internal Comments
12.2.3 External Comments
12.2.4 Final Report
12.2.5 Lab/Field Test Results

12.3 Groundwater Quality
12.3.1 Draft(s)
12.3.2 Internal Comments
12.3.3 External Comments
12.3.4 Final Report
12.3.5 Lab/Field Test Results

12.4 Soils and Sediment Analysis
12.4.1 Draft(s)
12.4.2 Internal Comments
12.4.3 External Comments
12.4.4 Final Report
12.4.5 Lab/Field Test Results

12.5 Surface Water Contamination
12.5.1 Draft(s)
12.5.2 Internal Comments
12.5.3 External Comments
12.5.4 Final Report
12.5.5 Lab/Field Test Results

12.6 Air Contamination
12.6.1 Draft(s)
12.6.2 Internal Comments
12.6.3 External Comments
12.6.4 Final Report
12.6.5 Lab/Field Test Results

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12.7 Off Facility Water Investigation Report

- 12.7.1 Draft(s)
- 12.7.2 Internal Comments
- 12.7.3 External Comments
- 12.7.4 Final Report
- 12.7.5 Lab/Field Test Results

13.0 PROJECT DELIVERABLES -- TASK 4

13.1 Summary Type and Extent of Site Contamination

- 13.1.1 Draft(s)
- 13.1.2 Internal Comments
- 13.1.3 External Comments
- 13.1.4 Final Report

13.2 Discussion of Risks from CLP Constituents

- 13.2.1 Draft(s)
- 13.2.2 Internal Comments
- 13.2.3 External Comments
- 13.2.4 Final Report

13.3 Relation of Investigation Results to Potential Remedial Technologies

- 13.3.1 Draft(s)
- 13.3.2 Internal Comments
- 13.3.3 External Comments
- 13.3.4 Final Report

13.4 Development of Ground Water Protection Standards for CLP Constituents

- 13.4.1 Draft(s)
- 13.4.2 Internal Comments
- 13.4.3 External Comments
- 13.4.4 Final Report

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14.0 QUALITY ASSURANCE (Task 7.2)

- 14.1 Laboratory Certification
- 14.2 Field Surveillance
- 14.3 Training Records (By Task)
- 14.4 Nonconformances
- 14.5 Audits - Internal
  - 14.5.1 ASI (By Date)
  - 14.5.2 IT (By Date)
  - 14.5.3 QA Officer (By Date)
- 14.6 Audits - External (By Date)
- 14.7 Software Control
- 14.8 Correspondence

15.0 TASK 9

- 15.1 Task 9.1 RCRA Overpacks
  - 15.1.1 Sampling Plan/Procedures
    - 15.1.1.1 WMCO Comments/Responses
    - 15.1.1.2 DOE Comments/Responses
    - 15.1.1.3 Agency Comments/Responses
    - 15.1.1.4 ASI/IT Comments/Responses
    - 15.1.1.5 Change Pages
  - 15.1.2 Sampling Map & Drawings
  - 15.1.3 Equipment List
    - 15.1.3.1 Calibration Records
    - 15.1.3.2 Procurement Records
  - 15.1.4 Permits
  - 15.1.5 Correspondence
    - 15.1.5.1 Internal (ASI/IT)
    - 15.1.5.2 External-Outgoing
    - 15.1.5.3 External-Incoming

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15.1.6 Chain of Custody Forms
15.1.7 Sample Analysis Requests
15.1.8 Field Activity Logs
15.1.9 Field Investigation Data and Results
15.1.10 Field Activity Variances
15.1.11 Field Calculations
15.1.12 Record of Telecon
15.1.13 Budget/Schedule
15.1.14 Analytical Results

15.2 Task 9.2 EP Toxicity, Laboratory
15.2.1 Sampling Plan/Procedures
15.2.1.1 WMCO Comments/Responses
15.2.1.2 DOE Comments/Responses
15.2.1.3 Agency Comments/Responses
15.2.1.4 ASI/IT Comments/Responses
15.2.1.5 Change Pages
15.2.2 Sampling Map & Drawings
15.2.3 Equipment List
15.2.3.1 Calibration Records
15.2.3.2 Procurement Records
15.2.4 Permits
15.2.5 Correspondence
15.2.5.1 Internal (ASI/IT)
15.2.5.2 External-Outgoing
15.2.5.3 External-Incoming
15.2.6 Chain of Custody Forms
15.2.7 Sample Analysis Requests
15.2.8 Field Activity Logs
15.2.9 Field Investigation Data and Results
15.2.10 Field Activity Variances
15.2.11 Field Calculations
15.2.12 Record of Telecon
15.2.13 Budget/Schedule

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15.2.14 Analytical Results

15.3 Task 9.3 Zone of Influence

15.3.1 Sampling Plan/Procedures

15.3.1.1 WMCO Comments/Responses

15.3.1.2 DOE Comments/Responses

15.3.1.3 Agency Comments/Responses

15.3.1.4 ASI/IT Comments/Responses

15.3.1.5 Change Pages

15.3.2 Sampling Map & Drawings

15.3.3 Equipment List

15.1.3.1 Calibration Records

15.1.3.2 Procurement Records

15.3.4 Permits

15.3.5 Correspondence

15.3.5.1 Internal (ASI/IT)

15.3.5.2 External-Outgoing

15.3.5.3 External-Incoming

15.3.6 Chain of Custody Forms

15.3.7 Sample Analysis Requests

15.3.8 Field Activity Logs

15.3.9 Field Investigation Data and Results

15.3.9.1 Water Quality Field Collection Rpt.

15.3.9.2 Sample Collection Log

15.3.10 Field Activity Variances

15.3.11 Field Calculations

15.3.12 Record of Telecon

15.3.13 Budget/Schedule

15.3.14 Analytical Results

15.3.15 Report

15.4 Task 9.4 Install 3 RCRA Wells

15.4.1 Sampling Plan/Procedures

15.4.1.1 WMCO Comments/Responses

15.4.1.2 DOE Comments/Responses

15.4.1.3 Agency Comments/Responses
15.4.1.4 ASI/IT Comments/Responses
15.4.1.5 Change Pages
15.4.2 Sampling Map & Drawings
15.4.3 Equipment List
15.4.3.1 Calibration Records
15.4.3.2 Procurement Records
15.4.4 Permits
15.4.5 Correspondence
15.4.5.1 Internal (ASI/IT)
15.4.5.2 External-Outgoing
15.4.5.3 External-Incoming
15.4.6 Chain of Custody Forms
15.4.7 Sample Analysis Requests
15.4.8 Field Activity Logs
15.4.9 Field Investigation Data and Results
15.4.9.1 Visual Classification of Soils, Piezometer Installation Sheet/Sketch
15.4.9.2 Sample Collection Log
15.4.10 Field Activity Variances
15.4.11 Field Calculations
15.4.12 Record of Telecon
15.4.13 Budget/Schedule
15.4.14 Analytical Results
15.4.15 Report
15.5 Task 9.5 K-65 Silos (Closed)
15.5.1 Sampling Plan/Procedures
15.5.1.1 WMCO Comments/Responses
15.5.1.2 DOE Comments/Responses
15.5.1.3 Agency Comments/Responses
15.5.1.4 ASI/IT Comments/Responses
15.5.1.5 Change Pages
15.5.2 Sampling Map & Drawings

15.5.3 Equipment List
- 15.5.3.1 Calibration Records
- 15.5.3.2 Procurement Records

15.5.4 Permits

15.5.5 Correspondence
- 15.5.5.1 Internal (ASI/IT)
- 15.5.5.2 External-Outgoing
- 15.5.5.3 External-Incoming

15.5.6 Chain of Custody Forms

15.5.7 Sample Analysis Requests

15.5.8 Field Activity Logs

15.5.9 Field Investigation Data and Results

15.5.10 Field Activity Variances

15.5.11 Field Calculations

15.5.12 Record of Telecon

15.5.13 Budget/Schedule

15.5.14 Analytical Results

15.5.15 Report

15.6 Task 9.6 Thorium Drum Overpack

15.6.1 Sampling Plan/Procedures
- 15.6.1.1 WMCO Comments/Responses
- 15.6.1.2 DOE Comments/Responses
- 15.6.1.3 Agency Comments/Responses
- 15.6.1.4 ASI/IT Comments/Responses
- 15.6.1.5 Change Pages
- 15.6.1.6 Final Sampling Plan/Procedures

15.6.2 Sampling Map & Drawings

15.6.3 Equipment List
- 15.6.3.1 Calibration Records
- 15.6.3.2 Procurement Records

15.6.4 Permits

15.6.5 Correspondence
- 15.6.5.1 Internal (ASI/IT)

15.6.5.2 External-Outgoing
15.6.5.3 External-Incoming
15.6.6 Chain of Custody Forms
15.6.7 Sample Analysis Requests
15.6.8 Field Activity Logs
15.6.9 Field Investigation Data and Results
15.6.10 Field Activity Variances
15.6.11 Field Calculations
15.6.12 Record of Telecon
15.6.13 Budget/Schedule
15.6.14 Analytical Results
15.6.15 Report

15.7 Task 9.7 Kerosene Tanks
15.7.1 Sampling Plan/Procedures
15.7.1.1 WMCO Comments/Responses
15.7.1.2 DOE Comments/Responses
15.7.1.3 Agency Comments/Responses
15.7.1.4 ASI/IT Comments/Responses
15.7.1.5 Change Pages
15.7.2 Sampling Map & Drawings
15.7.3 Equipment List
15.7.3.1 Calibration Records
15.7.3.2 Procurement Records
15.7.4 Permits
15.7.5 Correspondence
15.7.5.1 Internal (ASI/IT)
15.7.5.2 External-Outgoing
15.7.5.3 External-Incoming
15.7.6 Chain of Custody Forms
15.7.7 Sample Analysis Requests
15.7.8 Field Activity Logs
15.7.9 Field Investigation Data and Results
15.7.10 Field Activity Variances

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15.7.11 Field Calculations
15.7.12 Record of Telecon
15.7.13 Budget/Schedule
15.7.14 Analytical Results

15.8 Task 9.8 RCRA Monitoring Well Sampling
15.8.1 Sampling Plan/Procedures
15.8.1.1 WMCO Comments/Responses
15.8.1.2 DOE Comments/Responses
15.8.1.3 Agency Comments/Responses
15.8.1.4 ASI/IT Comments/Responses
15.8.1.5 Change Pages
15.8.2 Sampling Map & Drawings
15.8.3 Equipment List
15.8.3.1 Calibration Records
15.8.3.2 Procurement Records
15.8.4 Permits
15.8.5 Correspondence
15.8.5.1 Internal (ASI/IT)
15.8.5.2 External-Outgoing
15.8.5.3 External-Incoming
15.8.6 Chain of Custody Forms
15.8.7 Sample Analysis Requests
15.8.8 Field Activity Logs
15.8.9 Field Investigation Data and Results
15.8.9.1 Water Quality Field Collection Rpt.
15.8.9.2 Sample Collection Log
15.8.10 Field Activity Variances
15.8.11 Field Calculations
15.8.12 Record of Telecon
15.8.13 Budget/Schedule
15.8.14 Analytical Results

15.9 Task 9.9 Barium Chloride
15.9.1 Sampling Plan/Procedures

15.9.1.1 WMCO Comments/Responses
15.9.1.2 DOE Comments/Responses
15.9.1.3 Agency Comments/Responses
15.9.1.4 ASI/IT Comments/Responses
15.9.1.5 Change Pages
15.9.2 Sampling Map & Drawings
15.9.3 Equipment List
15.9.3.1 Calibration Records
15.9.3.2 Procurement Records
15.9.4 Permits
15.9.5 Correspondence
15.9.5.1 Internal (ASI/IT)
15.9.5.2 External-Outgoing
15.9.5.3 External-Incoming
15.9.6 Chain of Custody Forms
15.9.7 Sample Analysis Requests
15.9.8 Field Activity Logs
15.9.9 Field Investigation Data and Results
15.9.10 Field Activity Variances
15.9.11 Field Calculations
15.9.12 Record of Telecon
15.9.13 Budget/Schedule
15.9.14 Analytical Results
15.10 Task 9.10 Thorium Risk Assessment
15.10.1 Sampling Plan/Procedures
15.10.1.1 WMCO Comments/Responses
15.10.1.2 DOE Comments/Responses
15.10.1.3 Agency Comments/Responses
15.10.1.4 ASI/IT Comments/Responses
15.10.1.5 Change Pages
15.10.2 Sampling Map & Drawings
15.10.3 Equipment List
15.10.3.1 Calibration Records

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15.10.3.2 Procurement Records
15.10.4 Permits
15.10.5 Correspondence
15.10.5.1 Internal (ASI/IT)
15.10.5.2 External-Outgoing
15.10.5.3 External-Incoming
15.10.6 Chain of Custody Forms
15.10.7 Sample Analysis Requests
15.10.8 Field Activity Logs
15.10.9 Field Investigation Data and Results
15.10.10 Field Activity Variances
15.10.11 Field Calculations
15.10.12 Record of Telecon
15.10.13 Budget/Schedule
15.10.14 Analytical Results
15.11 Task 9.11 Abandoned in Place
15.11.1 Sampling Plan/Procedures
15.11.1.1 WMCO Comments/Responses
15.11.1.2 DOE Comments/Responses
15.11.1.3 Agency Comments/Responses
15.11.1.4 ASI/IT Comments/Responses
15.11.1.5 Change Pages
15.11.2 Sampling Map & Drawings
15.11.3 Equipment List
15.11.3.1 Calibration Records
15.11.3.2 Procurement Records
15.11.4 Permits
15.11.5 Correspondence
15.11.5.1 Internal (ASI/IT)
15.11.5.2 External-Outgoing
15.11.5.3 External-Incoming
15.11.6 Chain of Custody Forms
15.11.7 Sample Analysis Requests

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15.11.8 Field Activity Logs
15.11.9 Field Investigation Data and Results
15.11.10 Field Activity Variances
15.11.11 Field Calculations
15.11.12 Record of Telecon
15.11.13 Budget/Schedule
15.11.14 Analytical Results

15.12 Task 9.12 K-65 Interim Remediation
15.12.1 Sampling Plan/Procedures
15.12.1.1 WMCO Comments/Responses
15.12.1.2 DOE Comments/Responses
15.12.1.3 Agency Comments/Responses
15.12.1.4 ASI/IT Comments/Responses
15.12.1.5 Change Pages
15.12.2 Sampling Map & Drawings
15.12.3 Equipment List
15.12.3.1 Calibration Records
15.12.3.2 Procurement Records
15.12.4 Permits
15.12.5 Correspondence
15.12.5.1 Internal (ASI/IT)
15.12.5.2 External-Outgoing
15.12.5.3 External-Incoming
15.12.6 Chain of Custody Forms
15.12.7 Sample Analysis Requests
15.12.8 Field Activity Logs
15.12.9 Field Investigation Data and Results
15.12.10 Field Activity Variances
15.12.11 Field Calculations
15.12.12 Record of Telecon
15.12.13 Budget/Schedule
15.12.14 Analytical Results

15.13 Task 9.13 Barium Chloride Phase 2

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15.13.1 Sampling Plan/Procedures
- 15.13.1.1 WMCO Comments/Responses
- 15.13.1.2 DOE Comments/Responses
- 15.13.1.3 Agency Comments/Responses
- 15.13.1.4 ASI/IT Comments/Responses
- 15.13.1.5 Change Pages

15.13.2 Sampling Map & Drawings

15.13.3 Equipment List
- 15.13.3.1 Calibration Records
- 15.13.3.2 Procurement Records

15.13.4 Permits

15.13.5 Correspondence
- 15.13.5.1 Internal (ASI/IT)
- 15.13.5.2 External-Outgoing
- 15.13.5.3 External-Incoming

15.13.6 Chain of Custody Forms

15.13.7 Sample Analysis Requests

15.13.8 Field Activity Logs

15.13.9 Field Investigation Data and Results

15.13.10 Field Activity Variances

15.13.11 Field Calculations

15.13.12 Record of Telecon

15.13.13 Budget/Schedule

15.13.14 Analytical Results

15.14 Task 9.14 K-65 Revised Sampling Procedure

15.14.1 Sampling Plan
- 15.14.1.1 WMCO Comments/Responses
- 15.14.1.2 DOE Comments/Responses
- 15.14.1.3 Agency Comments/Responses
- 15.14.1.4 ASI/IT Comments/Responses
- 15.14.1.5 Change Pages

15.14.2 Sampling Map & Drawings

15.14.3 Equipment List

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15.14.3.1 Calibration Records
15.14.3.2 Procurement Records
15.14.4 Permits
15.14.5 Correspondence
15.14.5.1 Internal (ASI/IT)
15.14.5.2 External-Outgoing
15.14.5.3 External-Incoming
15.14.6 Chain of Custody Forms
15.14.7 Sample Analysis Requests
15.14.8 Field Activity Logs
15.14.9 Field Investigation Data and Results
15.14.10 Field Activity Variances
15.14.11 Field Calculations
15.14.12 Record of Telecon
15.14.13 Budget/Schedule
15.14.14 Analytical Results
15.15 Task 9.15
15.15.1 Sampling Plan/Procedures
15.15.1.1 WMCO Comments/Responses
15.15.1.2 DOE Comments/Responses
15.15.1.3 Agency Comments/Responses
15.15.1.4 ASI/IT Comments/Responses
15.15.1.5 Change Pages
15.15.2 Sampling Map & Drawings
15.15.3 Equipment List
15.15.3.1 Calibration Records
15.15.3.2 Procurement Records
15.15.4 Permits
15.15.5 Correspondence
15.15.5.1 Internal (ASI/IT)
15.15.5.2 External-Outgoing
15.15.5.3 External-Incoming
15.15.6 Chain of Custody Forms

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15.15.7 Sample Analysis Requests
15.15.8 Field Activity Logs
15.15.9 Field Investigation Data and Results
15.15.10 Field Activity Variances
15.15.11 Field Calculations
15.15.12 Record of Telecon
15.15.13 Budget/Schedule
15.15.14 Analytical Results

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APPENDIX D

RI/FS PROJECT SCHEDULE

(TO BE ISSUED UNDER SEPARATE COVER FOLLOWING FINAL APPROVAL)