

**APPENDIX D5  
ANNOTATED OUTLINE FOR  
EXCAVATION COMPLETION REPORT**

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
Preface .....	D5-1
Annotated Outline .....	D5-2

## **PREFACE**

This appendix includes an annotated outline that identifies potential content for an Excavation Completion Report. This outline is not intended to be prescriptive and should be adjusted as appropriate for the site-specific conditions.

This outline is for guidance only, and is applicable on a case-by-case basis. Some elements of the outline may apply to your site, while other elements may not. Additional elements than are addressed by this outline may also be needed.

## ANNOTATED OUTLINE FOR EXCAVATION COMPETITION REPORT

### TABLE OF CONTENTS

- 1.0 INTRODUCTION
  - 1.1 Site Description and History
  - 1.2 Previous Environmental Investigations
  - 1.3 Excavation, Disposal, and Restoration Plan
  - 1.4 Health and Safety Plan
- 2.0 PUBLIC PARTICIPATION
- 3.0 SITE PREPARATION ACTIVITIES
  - 3.1 Mapping of Excavation Areas
  - 3.2 Utility Survey
  - 3.3 Permits
  - 3.4 Backfill Source Selection
- 4.0 EXCAVATION ACTIVITIES
  - 4.1 Site Clearing and Debris Removal
  - 4.2 Excavation Activities
  - 4.3 Stockpile Management
  - 4.4 Confirmation Soil Sampling
    - 4.4.1 Confirmation Sampling
    - 4.4.2 Quality Control Samples
  - 4.5 Site Restoration and Backfilling Activities
  - 4.6 Surveying Activities
- 5.0 DATA INTERPRETATION
  - 5.1 Laboratory Analysis
  - 5.2 Evaluation of Laboratory Results
  - 5.3 Interpretation of Confirmation Sample Findings
  - 5.4 Quality Assurance and Quality Control Evaluation
- 6.0 WASTE CHARACTERIZATION AND DISPOSAL
  - 6.1 Soil Stockpiles
    - 6.1.1 Laboratory Analysis
    - 6.1.2 Evaluation of Laboratory Results
    - 6.1.3 Interpretation of Stockpile Sample Findings
  - 6.2 Disposal
- 7.0 FIELD VARIANCES
- 8.0 AIR MONITORING

**TABLE OF CONTENTS (Continued)**

9.0 POST-CLEANUP EVALUATION (if applicable)

10.0 SUMMARY AND CONCLUSIONS

11.0 REFERENCES

**FIGURES**

- Site Location Map
- Site and Vicinity Map
- Excavation Plan – As-Built
- Sidewall Confirmation Sample Location Map
- Excavation Floor Confirmation Sample Location Map
- Site Grading Plan – As-Built

**TABLES**

- Summary of Excavation Depths
- Assumed and Actual Soil Quantities
- Summary of Soil Confirmation Sample Data
- Summary of Backfill Material Data
- Stockpile Analytical Results
- Environmental Monitoring – Summary of Dust Data
- Environmental Monitoring – Summary of Metal Data
- Post-Cleanup Evaluation (if applicable)

**APPENDICES**

- Backfill Soil Sampling Laboratory Data
- Quality Assurance Soil Sampling Laboratory Data
- Air Monitoring Laboratory Data
- Worker Air Monitoring Laboratory Data
- Geotechnical Test Data
- Waste Manifests and Weight Tickets
- Landfill Approval Documentation

## 1.0 INTRODUCTION

*Instructions: State the purpose of the report. Introduce the site, its location, and history. Summarize previous investigations. Include pertinent information that addresses site background, hydrogeologic conditions, and the nature and extent of contaminants. Identify and outline the key elements of the plan. Identify the Health and Safety Plan and outline the health and safety measures and monitoring undertaken during the cleanup action.*

- 1.1 SITE DESCRIPTION AND HISTORY
- 1.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS
- 1.3 EXCAVATION, DISPOSAL, AND RESTORATION PLAN
- 1.4 HEALTH AND SAFETY PLAN

## 2.0 PUBLIC PARTICIPATION

*Instructions: Describe the public participation activities associated with the cleanup action.*

## 3.0 SITE PREPARATION ACTIVITIES

*Instructions: Describe the major activities used to prepare the site for excavation (e.g., mapping of excavation areas, utilities surveys, permits obtained, backfill source selection). Describe the source of backfill material and the chemical analyses conducted on the material.*

- 3.1 MAPPING OF EXCAVATION AREAS
- 3.2 UTILITY SURVEY
- 3.3 PERMITS
- 3.4 BACKFILL SOURCE SELECTION

## 4.0 EXCAVATION ACTIVITIES

*Instructions: Describe the major activities conducted during excavation.*

- 4.1 SITE CLEARING AND DEBRIS REMOVAL
- 4.2 EXCAVATION ACTIVITIES
- 4.3 STOCKPILE MANAGEMENT
- 4.4 CONFIRMATION SOIL SAMPLING
  - 4.4.1 Confirmation Sampling
  - 4.4.2 Quality Control Samples
- 4.5 SITE RESTORATION AND BACKFILLING ACTIVITIES
- 4.6 SURVEYING ACTIVITIES

## 5.0 DATA INTERPRETATION

*Instructions: Present and discuss the soil confirmation sample data. Discuss how the data were interpreted to indicate that no further excavation was necessary.*

- 5.1 LABORATORY ANALYSIS
- 5.2 EVALUATION OF LABORATORY RESULTS
- 5.3 QUALITY ASSURANCE AND QUALITY CONTROL EVALUATION
- 5.4 INTERPRETATION OF CONFIRMATION SAMPLE FINDINGS

## 6.0 WASTE CHARACTERIZATION AND DISPOSAL

*Instructions: Present and discuss the data used to profile the stockpiles. Discuss how the data were interpreted to select the disposal option. Discuss the disposal of excavated soil, any debris, and other waste materials.*

- 6.1 SOIL STOCKPILES
  - 6.1.1 Laboratory Analysis
  - 6.1.2 Evaluation of Laboratory Results
  - 6.1.3 Interpretation of Stockpile Sample Findings
- 6.2 DISPOSAL

## 7.0 FIELD VARIANCES

*Instructions: Discuss any field variances that occurred during excavation activities.*

## 8.0 AIR MONITORING

*Instructions: Present and discuss the air monitoring results collected during the excavation activities.*

## 9.0 POST-CLEANUP EVALUATION<sup>1</sup>

*Instructions: If applicable, include a post-cleanup evaluation.*

## 10.0 SUMMARY AND CONCLUSIONS

*Instructions: Summarize the excavation activities and indicate whether the cleanup objectives were fully met.*

## 11.0 REFERENCES

*Instructions: List any references cited in the report.*

---

<sup>1</sup> For information regarding the post-cleanup evaluation, see Section 5.5 of the Guidance Document and Appendix D4.