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VALLEY CAMP OF UTAH, INC.

Scofield Route

Helper, Utah 84526

11 March 1983

Mr. Thomas N. Tetting
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

Dear Mr. Tetting:

Please find enclosed copies of Pages 16A through 16G for insertion into Section 782.14 of Volume I (orange binder) of Valley Camp's Mining Permit Application. These are the pages you were missing when we went through Volume I on Wednesday, March 9, 1983.

Sincerely,



T. G. Whiteside
Chief Engineer

Enclosures

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**DIVISION OF
OIL, GAS & MINING**

VALLEY CAMP OF UTAH, INC.

Scotfield Route
Helper, Utah 84526

8 March 1983

Mr. Thomas N. Tetting
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re: Update of Mining Permit Application

Dear Mr. Tetting:

During the process of responding to the Final ACR Comments issued by the Division on February 7, 1983, I have discovered certain sections of the original application that require updating to current status.

Those sections have either been revised or had additions added to them. Ten (10) copies of each are attached, in the form of two (2) groups, and are to be distributed for insertion as indicated below.

Group 1 - Inserts for Volume I (orange binder)

1. U.M.C. 782.13, Pages 5 through 9
2. U.M.C. 782.14, Pages 16H through 16L

Group 2 - Inserts for Volume III (blue binder)

1. U.M.C. 784.12, Page 17

If you have questions concerning the attached, please call me.

Sincerely,



T. G. Whiteside
Chief Engineer

Attachments

TABLE OF CONTENTS

VOLUME I

<u>OSM Regulation</u>	<u>Page</u>
* ACKNOWLEDGEMENT OF THE STATE OF UTAH'S GENERAL REQUIREMENTS FOR QUALIFICATIONAL FORMAT AND CONTENT	iii
* INTRODUCTION	1
782.13 IDENTIFICATION OF INTERESTS	4
782.14 COMPLIANCE INFORMATION	14
782.15 RIGHT OF ENTRY AND OPERATION INFORMATION	17
782.16 RELATIONSHIP TO AREAS DESIGNATED UNSUITABLE FOR MINING	24
782.17 PERMIT TERM	26
782.18 PERSONAL INJURY AND PROPERTY DAMAGE INSURANCE	27
782.19 OTHER LICENSE AND PERMITS	27
782.20 IDENTIFICATION OF LOCATION OF FILING APPLICATION	36
782.21 NEWSPAPER ADVERTISEMENT	36
771.23 PREPARATION OF PERMIT APPLICATION	39
771.27 VERIFICATION OF APPLICATION	41
* APPENDIX A	42
* APPENDIX B - SURFACE MINING PERMITS	

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1-1	GENERAL LOCATION MAP OF MINE PLAN AREA	3
1-2	OFFICERS OF THE VALLEY CAMP COAL COMPANY AND OFFICERS OF VALLEY CAMP OF UTAH, INC.	6
1-3	DIRECTORS OF THE VALLEY CAMP COAL COMPANY AND DIRECTORS OF VALLEY CAMP OF UTAH, INC.	8
1-4	SURFACE OWNERSHIP OF PROPERTY CONTIGUOUS TO PERMIT AREA	12
1-5	COAL OWNERSHIP OF PROPERTY CONTIGUOUS TO PERMIT AREA	13
1-6	CERTIFICATE OF INSURANCE	28
1-7	OTHER APPROVED PERMITS AND LICENSES	29
1-8	PROPOSED PUBLIC NOTICE FOR FILING UNDER- GROUND MINING PERMIT APPLICATIONS	37

UNDERGROUND MINING PERMIT APPLICATION
MINIMUM REQUIREMENTS FOR LEGAL, ,
FINANCIAL, COMPLIANCE, AND
RELATED INFORMATION

Permanent Regulatory Program
Subchapter G - Part 782

Volume I

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DIVISION OF
OIL, GAS & MINING

Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526

ACKNOWLEDGEMENT OF THE STATE OF UTAH'S GENERAL
REQUIREMENTS FOR QUALIFICATIONAL FORMAT AND CONTENT

On November 3, 1980, the State of Utah, Department of Natural Resources, Division of Oil, Gas, and Mining issued a revised general guideline for organizational format and content for permit applications. The permit applications will be for underground coal mining operations pursuant to the Utah Coal Mining and Reclamation Act and rules and regulations promulgated thereunder.

At the date of this revision Valley Camp of Utah, Inc.'s permit application was substantially complete and had been organized on the basis of the OSM permanent regulatory program. The organization of the application is explained on pages iii and iv of this Volume I of the permit application.

In an effort to relate the permit application with the State of Utah's revised guidelines for organizational format and content and also in an effort to permit efficient review of the application a new Table of Contents has been provided on the following page. This new Table of Contents relates the State of Utah's general guidelines to the previously completed Valley Camp of Utah, Inc.'s permit application.

STATE OF UTAH RECOMMENDED FORMAT AND CONTENT

CROSS REFERENCE

Chapter I, (Volume I)

Introduction and Summary of Permit Application

1.1	Scope of Operation	Vol. I, pp. 2 & 3
1.2	Summary of Environmental Impacts	Vol. I, p. 41
1.3	Introduction to Document Organization and Reviewers Checklist	Vol. I, p. 1
1.4	Acknowledgements	Vol. I, p. 39

Chapter II, (Volume I)

Legal, Financial, Compliance and Related Information

2.0	Table of Contents	Vol. I, pp. i & ii
2.1	Scope	Vol. I, pp. 1-3
2.2	Identification of Interests (782.13)	Vol. I, pp. 4-13
2.3	Compliance Information (782.14)	Vol. I, pp. 14-16
2.4	Right of Entry and Operation Information (782.15)	Vol. I, pp. 17-23
2.5	Relationship to Areas Designated Unsuitable to Mining (782.16)	Vol. I, pp. 24-25
2.6	Permit Term (782.17 & 786.25)	Vol. I, p. 26
2.7	Personal Injury and Property Damage Insurance (782.18)	Vol. I, p. 28
2.8	Proposed Performance Bond (800, 805, 806)	Vol. III, Sec. 784.13
2.9	Other Licenses and Permits (782.19)	Vol. I, pp. 29-35
2.10	Location of Public Office for Filing Application	Vol. I, pp. 37-38
2.11	Newspaper Advertisement (782.21, 786.11 (a))	Vol. I, p. 36

STATE OF UTAH RECOMMENDED FORMAT AND CONTENT

CROSS REFERENCE

Chapter III, (Volume III)

Operation and Reclamation Plan (784.0)

3.0	Table of Contents	
3.1	Scope	
3.2	Surface Facilities/Construction Plans	
3.2.1	Site Selection and Preparation (784.12)	Vol. III, pp. 9-21
3.2.2	Portals (784.11)	Vol. III, pp. 2-5
3.2.3	Surface Buildings and Structures (784.12)	Vol. III, pp. 9-21
3.2.4	Coal Handling, Processing, Preparation and Storage (784.11, 784.25)	Vol. III, pp. 5 & 92
3.2.5	Power System, Transmission Lines, Substations, Mine Feeders (784.11)	Vol. III, pp. 9-21
3.2.6	Water Supply System	Vol. III, p. 5
3.2.7	Sewage System (784.12)	Vol. III, p. 9
3.2.8	Water Diversion Structures (784.22)	Vol. III, p.89
3.2.9	Sedimentation Control Structures and Water Treatment Facilities (784.12)	Vol. III, pp. 9-21
3.2.10	Transportation, Roads, Parking Areas, Railroad Spurs (784.24)	Vol. III, p. 92
3.2.11	Total Area for Surface Distur- bance During Permit Term	Vol. III, Appendix A
3.2.12	Additional Areas for Surface Disturbance for Life of Mine	N/A
3.2.13	Detailed Construction Schedule	N/A
3.3	Operation Plan	
3.3.1	Mining Plans (784.11)	Vol. III, pp. 2-8
3.3.1.1	Orientation and Multiple Seam Considerations (784.11)	Vol. III, pp. 2-8
3.3.1.2	Portals, Shafts and Slopes (784.11)	Vol. III, pp. 2-8
3.3.1.3	Mining Methods, Room and Pillar, Longwall (784.11)	Vol. III, pp. 2-8
3.3.1.4	Projected Mine Development, Mains, Submains, Panels, etc.	Vol. IV, Map B
3.3.1.5	Retreat Mining	Vol. IV, Map B
3.3.1.6	Roof Control, Ventilation, Water Systems, Dust Suppression, Dewatering, Electrical, Etc. (784.11)	Vol. III, pp. 2-8

3.3.2	Barrier Pillars	Vol. IV, Map B
3.3.2.1	Protection of Oil and Gas Wells (784.11)	Vol. III, p. 5a
3.3.2.2	Protection of Surface Structures Streams (784.20)	Vol. III, p. 82
3.3.2.3	Property Boundaries	Vol. IV, Map A
3.3.2.4	Outcrop Protection	N/A
3.3.2.5	Other	N/A
3.3.3	Conservation of Coal Resource (817.59, 784.11)	Vol. III, pp. 2-8
3.3.3.1	Projected Maximum Recovery (784.11)	Vol. III, pp. 2-8
3.3.3.2	Justification for Non-recovery (784.11)	Vol. III, pp. 2-8
3.3.3.3	Access to Future Reserves	Vol. IV, Map B
3.3.4	Equipment Selection (784.11)	Vol. III, pp. 7-8
3.3.4.1	Surface Equipment	N/A
3.3.4.2	Underground Equipment (784.11)	Vol. III, pp. 7-8
3.3.5	Mine Safety, Fire Protection, and Security (784.11)	Vol. III, pp. 2-8
3.3.5.1	Signs	Not discussed in permit application.
3.3.5.2	Fences and Gates	Not discussed in permit application.
3.3.5.3	Fire Protection - Facilities - Coal Stockpiles, Refuse Piles - Coal Seam	Vol. III, p. 5a
3.3.5.4	Explosives - Storage and Handling - Use	Vol. III, p. 5a
3.3.6	Operations Schedule (784.11)	Vol. III, pp. 5a-6
3.3.6.1	Annual Production Per Year for Permit Term (784.11)	Vol. III, p. 6
3.3.6.2	Operating Schedule-Days-Shifts	Vol. III, p. 5a
3.3.6.3	Operation Employment	Vol. III, p. 5a
3.3.7	Mine Permit Area	Vol. IV, Map A
3.3.7.1	Projected Mining by Year	Vol. IV, Map B
3.3.7.2	Acreage and Delineation of Mine Permit Area	Vol. IV, Map A
3.3.8	Mine Plan Area	Vol. IV, Map A
3.3.8.1	Projected Mining by Future Permit Term for the Planned Life of Mine	Vol. IV, Map B
3.4 Environmental Protection		
3.4.1	Preservation of Land-Use (784.15)	Vol. III, pp. 48-54
3.4.1.1	Projected Impacts of Mining on Current and Future Land-Use (784.15, 783.22)	Vol. III, p. 48 Vol. II, p. 104
3.4.1.2	Control Measures to Mitigate Impacts (784.13 - .26)	Vol. III, pp. 22-94

3.4.2	Protection of Human Values (783.12)	Vol. II, pp. 3-4
3.4.2.1	Projected Impacts of Mining on Human Values-Historical and Cultural (783.12)	Vol. II, pp. 3-4
3.4.2.2	Control Measures to Mitigate Impacts (783.12)	Vol. II, pp. 3-4
3.4.3	Protection of Hydrologic Balance (784.14)	Vol. III, pp. 35-47
3.4.3.1	Projected Impacts of Mining on Hydrologic Balance (784.14)	Vol. III, pp. 35-47
3.4.3.2	Control Measures to Mitigate Impacts (784.14)	Vol. III, pp. 35-47
3.4.3.3	Monitoring Procedures to Measure Projected Impacts and Control (784.14)	Vol. III, pp. 35-47
3.4.4	Preservation of Soil Resources (783.21)	Vol. II, pp. 83-103
3.4.4.1	Projected Impacts of Mining on Soil Resources (783.21)	Vol. II, pp. 83-103
3.4.4.2	Control Measures to Mitigate Impact (783.21)	Vol. II, pp. 83-103
3.4.5	Protection of Vegetative Resources (783.19)	Vol. II, pp. 39-51
3.4.5.1	Projected Impacts of Mining on Vegetative Resources (783.19)	Vol. II, pp. 39-51
3.4.5.2	Mitigating Measures to be Employed to Reduce Impacts on Vegetative Resources (783.19)	Vol. II, pp. 39-51
3.4.5.3	Monitoring Procedures- Reference Areas, and Revegetation (783.19, 784.13)	Vol. II, pp. 39-51 Vol. III, pp. 22-34
3.4.6	Protection of Fish and Wildlife (783.20)	Vol. II, pp. 52-82
3.4.6.1	Projected Impacts of Mining on Fish and Wildlife (783.20)	Vol. II, pp. 52-82
3.4.6.2	Mitigating Measures to be Employed to Protect Fish and Wildlife (784.21)	Vol. III, pp. 84-88
3.4.6.3	Monitoring Procedures (784.21)	Vol. III, pp. 84-88
3.4.7	Protection of Air Quality (784.26)	Vol. III, pp. 93-94
3.4.7.1	Projected Impacts of Mining Operation on Air Quality (784.26)	Vol. III, pp. 93-94
3.4.7.2	Mitigating Measures to be Employed to Control Air Pollutants (784.26)	Vol. III, pp. 93-94
3.4.7.3	Air Quality Monitoring Plans (784.26)	Vol. III, pp. 93-94

3.4.8	Subsidence Control Plan (784.20)	Vol. III, pp. 82-83
3.4.8.1	Projected Impacts of Subsidence (784.20)	Vol. III, pp. 82-83
3.4.8.2	Control Measures to Mitigate Impacts (784.20)	Vol. III, pp. 82-83
3.4.8.3	Monitoring Procedures to Measure Projected Impacts and Controls (784.20)	Vol. III, pp. 82-83
3.4.9	Waste Disposal Plans (784.25)	Vol. III, p. 92
3.4.9.1	Projected Impacts of Disposal Areas and Methods on Environment (784.25)	Vol. III, p. 92
3.4.9.2	Control Measures to Mitigate Impacts (784.25)	Vol. III, p. 92
3.5	Reclamation Plan	
3.5.1	Contemporaneous Reclamation (784.13)	Vol. III, pp. 22-34
3.5.2	Soil Removal and Storage (784.13)	Vol. III, pp. 27-28
3.5.3	Final Abandonment (784.13)	Vol. III, pp. 22-34
3.5.3.1	Sealing of Mine Openings (784.13)	Vol. III, pp. 22-34
3.5.3.2	Removal of Surface Structures (784.13)	Vol. III, pp. 22-34
3.5.3.3	Disposition of Dams, Ponds, and Diversions (784.13)	Vol. III, pp. 22-34
3.5.4	Backfilling and Grading Plans	Vol. IV, Maps D, D-1, D-2, D-3, D-4, D-5
3.5.4.1	Recontouring	Vol. IV, Maps D, D-1, D-2, D-3, D-4, D-5
3.5.4.2	Removal or Reduction of Highwalls	N/A
3.5.4.3	Terracing and Erosion Control (784.13)	Vol. III, pp. 22-34
3.5.4.4	Soil Redistribution and Stabilization	
3.5.5	Revegetation Plan (784.13)	Vol. III, pp. 22-34
3.5.5.1	Soil Preparation (784.13)	Vol. III, pp. 22-34
3.5.5.2	Seeding and Transplanting	Vol. III, pp. 22-34
3.5.5.3	Mulching (784.13)	Vol. III, pp. 22-34
3.5.5.4	Management (784.13)	Vol. III, pp. 22-34
3.5.5.5	Revegetation Monitoring (784.13)	Vol. III, pp. 22-34
3.5.6	Schedule of Reclamation (784.13)	Vol. III, p. 23
3.5.6.1	Detailed Timetable for Completion of Each Major Step in Reclamation (784.13)	Vol. III, p. 23
3.5.6.2	Reclamation Monitoring (784.13)	Vol. III, pp. 22-34
3.5.7	Cost Estimate for Reclamation (784.13)	Vol. III, p. 23
3.5.7.1	Cost Estimate of Each Step of Reclamation (784.13)	Vol. III, p. 23

- 3.5.7.2 Forecast of Performance Bond
During Permit Term and Forecast
of Liability for Life of Mine
(784.13) Vol. III, p. 23
- 3.6 Bibliography Vol. III, pp. 95-96
- 3.7 Chapter III - Photos (Maps) Vol. IV

STATE OF UTAH RECOMMENDED FORMAT AND CONTENT

CROSS REFERENCE

Chapter IV, (Volume II)

Land Status, Land-use and Postmining Land-Use

4.0	Table of Contents	
4.1	Scope	
4.2	Methodology	
4.3	Land Status	
4.3.1	Surface Land Status/Mine Plan Area (783.15)	Vol. I, pp. 17-23
4.3.1.1	Ownership (782.15)	Vol. I, pp. 17-23
4.3.1.2	Surface Managing Authorities	Vol. I
4.3.1.3	Utility Corridors and Other Right- of-Ways	Vol. I
4.3.1.4	Special Use Permits and Leases	N/A
4.3.2	Mineral Ownership/Mine Plan Area	
4.3.2.1	Coal Ownership and Mines (782.15)	Vol. I, pp 17-23
4.3.2.2	Coal Leases (782.15)	Vol. I, pp. 17-23
4.3.2.3	Mineral Ownership and Mines	
4.3.2.4	Mineral Leases	
4.3.2.5	Oil and Gas Ownership and Wells	
4.3.2.6	Oil and Gas Leases	
4.4	Land Use	
4.4.1	Regional Land-Use (783.22)	Vol. II, pp. 104-109
4.4.2	Land-use in Mine Plan Area (783.22)	Vol. II, pp. 104-109
4.4.3	Land-use During Operations (783.22)	Vol. II, pp. 104-109
4.4.3.1	Affect of Operation on Land-use (784.15)	Vol. III, pp. 48-54
4.4.3.2	Mitigation of Effects of Operation (784.15)	Vol. III, pp. 48-54
4.5	Postmining Land-use (784.15)	Vol. III, pp. 48-54
4.6	Socioeconomic Considerations (783.22)	Vol. III, pp. 104-109
4.7	Bibliography	Vol. II, pp. 112-114
4.8	Chapter IV - Plates (Maps)	Vol. IV

Chapter V, (Volume II)

Historical and Cultural Resources

5.0	Table of Contents	
5.1	Scope	
5.2	Methodology	
5.3	Historical Resources	
5.3.1	Historical Inventory (783.12)	Vol. II, pp. 3-4
5.3.2	History of Mining (783.22)	Vol. II, pp. 104-108
5.3.3	Effects of Mining on Historical Resources (783.12)	Vol. II, p. 4
5.4	Archeological Resources	
5.4.1	Archeological Inventory (783.12)	Vol. II, pp. 3-4
5.4.2	Effects of Mining on Archeological Resources (783.12)	Vol. II, p. 4
5.5	Paleontological	Not addressed in the permit application
5.5.1	Paleontologic Inventory	
5.5.2	Effects of Mining on Paleontologic Resources	
5.6	Public Parks (784.17)	Vol. III, p. 55
5.6.1	Inventory of Public Facilities	
5.6.2	Effects of Mining on Public Facilities	
5.7	Bibliography	Vol. II, pp. 112-119
5.8	Chapter V - Plates (Maps)	Vol. IV

Chapter VI, (Volume II)

Geology

6.0	Table of Contents	
6.1	Scope	
6.2	Methodology	
6.3	Regional Geologic Framework	
6.4	Geology of Project Vicinity	
6.4.1	Stratigraphy (783.14)	Vol. II, p. 7, Figure 2-1
6.4.2	Structure (783.14)	Vol. II, pp. 6-19

6.5	Geology of Coal Bed and Adjacent Units	
6.5.1	Exploration and Drilling (783.14)	Vol. II, pp. 15-19, Vol. IV, Map H
6.5.2	Stratigraphy (783.14)	Vol. II, pp. 6-19
6.5.3	Structure (783.14)	Vol. II, pp. 6-19
6.5.4	Detailed Columns of Interest and Cross-Sections (783.14)	Vol. II, pp. 6-9, Vol. IV, Map B-1A & B-1B
6.5.5	Coal Reserves	Vol. IV, Map B
6.5.5.1	Reserve Calculations	
6.5.5.2	Coal Quality and Characteristics, Sulfur Forms, Clay and Alkalinity (783.14)	Vol. II, pp. 15-19
6.5.6	Adjacent Units (Overburden) (783.14)	Vol. II, pp. 15-19
6.5.6.1	Rock Characteristics, Acid-toxic, Pyrite, Clay and Alkalinity (783.14)	Vol. II, pp. 12-13
6.6	Geologic Effects of Mining	Vol. III, pp. 5B
6.6.1	Mining Hazards	
6.6.2	Surface Hazards	
6.6.3	Impacts of Mining	
6.7	Bibliography	Vol. II, pp. 112-119
6.8	Chapter VI - Plates (Maps)	Vol. IV

Chapter VII, (Volume II)

Hydrology

7.0	Table of Contents	
7.1	Groundwater Hydrology (783.15)	Vol. II, pp. 20-27
7.1.0	Scope	
7.1.1	Methodology	
7.1.2	Existing Groundwater Resources	
7.1.2.1	Regional Groundwater Hydrology	
7.1.2.2	Mine Plan Area Aquifers	
	-Aquifer Characteristics	
	-Aquifer Recharge, Movement, Storage, (Piezometric Surfaces)	
	-Aquifer Water Quality	
	-Wells and Users	

7.1.3	Groundwater Development and Mine Dewatering	
7.1.3.1	Water Supply (783.17) -Quantity and Quality -Water Rights	Vol. II, p. 36
7.1.3.2	Mine Dewatering (784.14) -Quantity and Quality -Water Rights	Vol. III, pp. 35-47
7.1.4	Effects of Mining Operation on Groundwater (784.14)	Vol. III, pp. 35-47
7.1.4.1	Hydrologic Balance (784.14)	Vol. III, pp. 35-47
7.1.4.2	Quantity (784.14)	Vol. III, pp. 35-47
7.1.5	Mitigation and Control Plans (784.14)	Vol. III, pp. 35-47
7.1.6	Groundwater Monitoring Plan (784.14)	Vol. III, pp. 35-47
7.2	Surface Water Hydrology (783.16)	Vol. II, pp. 28-35
7.2.0	Scope	
7.2.1	Methodology	
7.2.2	Existing Surface Water Resources	
7.2.2.1	Regional Surface Water Hydrology	
7.2.2.2	Mine Plan Area Watersheds and Streams, Springs, and Seeps Characteristics, Streams Characteristics, Watershed Characteristics	
7.2.3	Surface Water Development, Control and Diversions	
7.2.3.1	Water Supply -Quantity and Quality -Water Rights	
7.2.3.2	Sedimentation Control Structures and Diversions (784.12) -Watershed Characteristics -Soil Loss and Sedimentation -Runoff Characteristics -Design Storms -Peak Flows -Diversion and Impoundment Structures -Design Volume -Sediment Volume -Seepage	Vol. III, pp. 9-21
7.2.4	Effects of Mining on Surface Water (784.14)	Vol. III, pp. 35-47
7.2.4.1	Hydrologic Balance (784.14)	Vol. III, pp. 35-47
7.2.4.2	Quality (784.14)	Vol. III, pp. 35-47
7.2.5	Mitigation and Control Plans (784.14)	Vol. III, pp. 35-47
7.2.6	Surface Water Monitoring Plans (784.14)	Vol. III, pp. 35-47

- | | | |
|-----|-------------------------------------|----------------------|
| 7.3 | Alluvial Valley Floor Determination | N/A |
| 7.4 | Bibliography | Vol. II, pp. 112-119 |
| 7.5 | Chapter VII - Plates (Maps) | Vol. IV |

Chapter VIII, (Volume II)

- | | | |
|-------------------------|--|----------------------|
| Soil Resources (783.21) | | Vol. II, pp. 83-103 |
| 8.0 | Table of Contents | |
| 8.1 | Scope | |
| 8.2 | Methodology | |
| 8.3 | Soil Resources Information of Mine Plan Area (783.21) | |
| 8.3.1 | Soils Identification | |
| 8.3.2 | Soils Description | |
| 8.3.3 | Present and Potential Productivity of Existing Soils | |
| 8.4 | Prime Farmland Investigation and Determination (783.27) | Vol. II, p. 110 |
| 8.5 | Soils, Physical and Chemical Properties of Soils and Results of Analysis, Tests and Trials (784.13 and 817.21) | |
| 8.6 | Use of Selected Overburden Materials or Substitutes (783.21 and 817.22) | |
| 8.7 | Plans for Removal, Storage and Protection of Soils (784.13, 817.22 and 817.23) | |
| 8.8 | Plans for Redistribution of Soils (784.13 and 817.24) | |
| 8.9 | Nutrients and Soil Amendments | |
| 8.10 | Effects of Mining Operations on Soils, Nutrients and Soil Amendments to be Used (817.25) | |
| 8.11 | Mitigation and Control Plans | |
| 8.12 | Bibliography | Vol. II, pp. 112-119 |
| 8.13 | Chapter VIII, Plates (Survey Map) | Vol. IV |

Chapter IX, (Volume II)

- | | | |
|-------------------------------|--|--------------------|
| Vegetation Resources (783.19) | | Vol. II, pp. 39-51 |
| 9.0 | Table of Contents | |
| 9.1 | Scope | |
| 9.2 | Methodology | |
| 9.3 | Existing Resources (See Vegetation Guidelines) | |

9.3.1	General Site Description	
9.3.2	Vegetation Types: for Each Vegetation Type	
9.3.2.1	Cover Data	
9.3.2.2	Production Data	
9.3.2.3	Tree Data	
9.3.2.4	General Description per Vegetation Guideline	
9.3.2.5	Species List	
9.3.2.6	Total Acres in Plan Area	
9.3.2.7	Total Acres of Vegetation Types to be Disturbed	
9.3.2.8	Reference Area Supporting Data (or Alternative Methods)	
9.4	Threatened and Endangered Species	
9.5	Effects of Mining Operations on Vegetation	
9.6	Mitigation and Management Plans	
9.7	Revegetation Methods and Justifications (784.13)	Vol. III, pp. 22-34
9.8	Revegetation Monitoring (784.13)	Vol. III, pp. 22-34
9.9	Bibliography (UMC 771)	Vol. II, pp. 112-119
9.10	Chapter IX - Plates (Maps)	Vol. IV

Chapter X, (Volume II)

Fish and Wildlife Resources	Vol. II, pp. 52-82F
-----------------------------	---------------------

10.0	Table of Contents	
10.1	Scope	
10.2	Methodology	
10.3	Existing Fish and Wildlife Resources (See Wildlife Guidelines)	
10.3.1	Wildlife Habitats in Mine Plan Area	
10.3.2	Wildlife	
10.3.2.1	Aquatic Wildlife and Habitat and Value Determination	
10.3.2.2	Terrestrial Wildlife and Habitat and Value Determination	
10.3.2.3	Mammals	
10.3.2.4	Birds	
10.3.2.5	Reptiles and Amphibians	
10.3.3	Species of Special Significance	
10.3.3.1	Threatened and Endangered Species	
10.3.3.2	Raptors	

- 10.4 Expected Impacts of Mining Operations on Fish and Wildlife
 - 10.5 Mitigation and Management Plans
 - 10.6 Stream Buffer Zone Determination by Division of Oil, Gas and Mining
 - 10.7 Fish and Wildlife Monitoring
 - 10.8 Bibliography (771 Information)
 - 10.9 Chapter X - Plates (Maps)
- Vol. III, pp. 84-88A
Vol. II, pp. 112-119, &
Vol. III, pp. 95-96
Vol. IV

Chapter XI, (Volume II)

- Climatology and Air Quality (783.18) Vol. II, pp. 37-38
- 11.0 Table of Contents
 - 11.1 Scope
 - 11.2 Methodology
 - 11.3 Existing Environment
 - 11.3.1 Precipitation
 - 11.3.2 Temperature
 - 11.3.3 Evaporation
 - 11.3.4 Relative Humidity
 - 11.3.5 Wind
 - 11.4 Effects of Mining Operation on Air Quality (784.26) Vol. III, pp. 93-94
 - 11.4.1 Estimate of Uncontrolled Emissions
 - 11.4.2 Description of Control Measures
 - 11.4.3 Estimate of Controlled Emissions
 - 11.4.4 Estimated Cost of Emission Control
 - 11.5 Climatological and Air Quality Monitoring Vol. III, pp. 95-96
 - 11.6 Bibliography Vol. II, pp. 112-119
 - 11.7 Chapter XI - Plates (Maps) Vol. IV

Chapter XII, (Volume III)

Geotechnical

Vol. III, pp. 5B

- 12.0 Table of Contents
- 12.1 Scope
- 12.3 Methodology
- 12.3 Underground Mine Design
 - 12.3.1 Geotechnical Tests and Analysis
 - 12.3.2 Coal Pillar Design
 - 12.3.3 Roof Span Design
- 12.4 Surface Subsidence Effects of Mining (784.20)
 - 12.4.1 Subsidence Mechanisms
 - 12.4.2 Projected Subsidence Effects
 - 12.4.3 Subsidence Control and Mitigation Methods
 - 12.4.4. Subsidence Monitoring Plan
 - Method
 - Monuments
 - Schedule
- 12.5 Stability Analysis of Earthen Structures (784.12) (789.19)
 - 12.5.1 Type of Structure
 - 12.5.1.1 Hazard Considerations
 - Impounding
 - Non-impounding
 - Location
 - 12.5.2 Construction Material Characteristics
 - 12.5.3 Foundation Material Characteristics
 - 12.5.4 Hydrologic Characteristics
 - 12.5.5 Design and Construction Plans
 - 12.5.6 Stability Analysis
- 12.6 Bibliography
- 12.7 Chapter XII - Plates (Maps)

Vol. III, pp. 82-83

Vol. III, pp. 9-21
Vol. III, pp. 56-81Vol. III, pp. 95-96
Vol. IV

Chapter XIII

Designs		Vol. III, pp. 9-21
13.0	Table of Contents	
13.1	Scope	
13.2	Methodology	
13.3	Detail Designs	
	-Compliance with Performance Standards	
13.4	Bibliography	Vol. III, pp. 95-96
13.5	Chapter XIII - Plates (Maps)	Vol. IV

Chapter XIV, (Volume I)

Consultation and Coordination (771.23)		Vol. I, pp. 39-40
14.0	Table of Contents	
14.1	Scope	
14.2	Federal Consultation and Coordination	
14.3	State Consultation and Coordination	
14.4	Local Consultation and Coordination	
14.5	Consultation and Coordination with Entities of Interest	
14.6	Other Consultation and Coordination	

INTRODUCTION

This Underground Mining and Reclamation Permit application is submitted by Valley Camp of Utah, Inc. ("Valley Camp, Inc."). Valley Camp, Inc. is a wholly owned subsidiary of The Valley Camp Coal Company, a private corporation.

To facilitate the review of this underground mining permit application and in accordance with the general requirements for format and contents given in Section 771.23 of the Permit Regulatory Program, the text of the application has been organized to fulfill the requirements of Subchapter G of the regulations as follows:

- Volume I - Addresses Part 782 of Subchapter G and provides legal, financial, compliance, and related information.
- Volume II - Addresses Part 783 of Subchapter G and provides information on environmental resources.
- Volume III - Addresses Part 784 of Subchapter G and describes reclamation and operation plans formulated in response to the requirements of Subchapters J and K.
- Volume IV - Contains oversized maps and drawings referred to in Volumes I, II, and III.

Maps and plans are submitted in accordance with the requirements of Section 771.23 (e). Large maps and drawings which are difficult to include with the text have, for

convenience, been bound in an oversize Volume IV. In general, technical data and analyses are summarized in the texts of these volumes with references to sources, dates and methodology. Supporting documents such as reports and publications referenced in the text are included in a bibliography in succeeding volumes of the permit application.

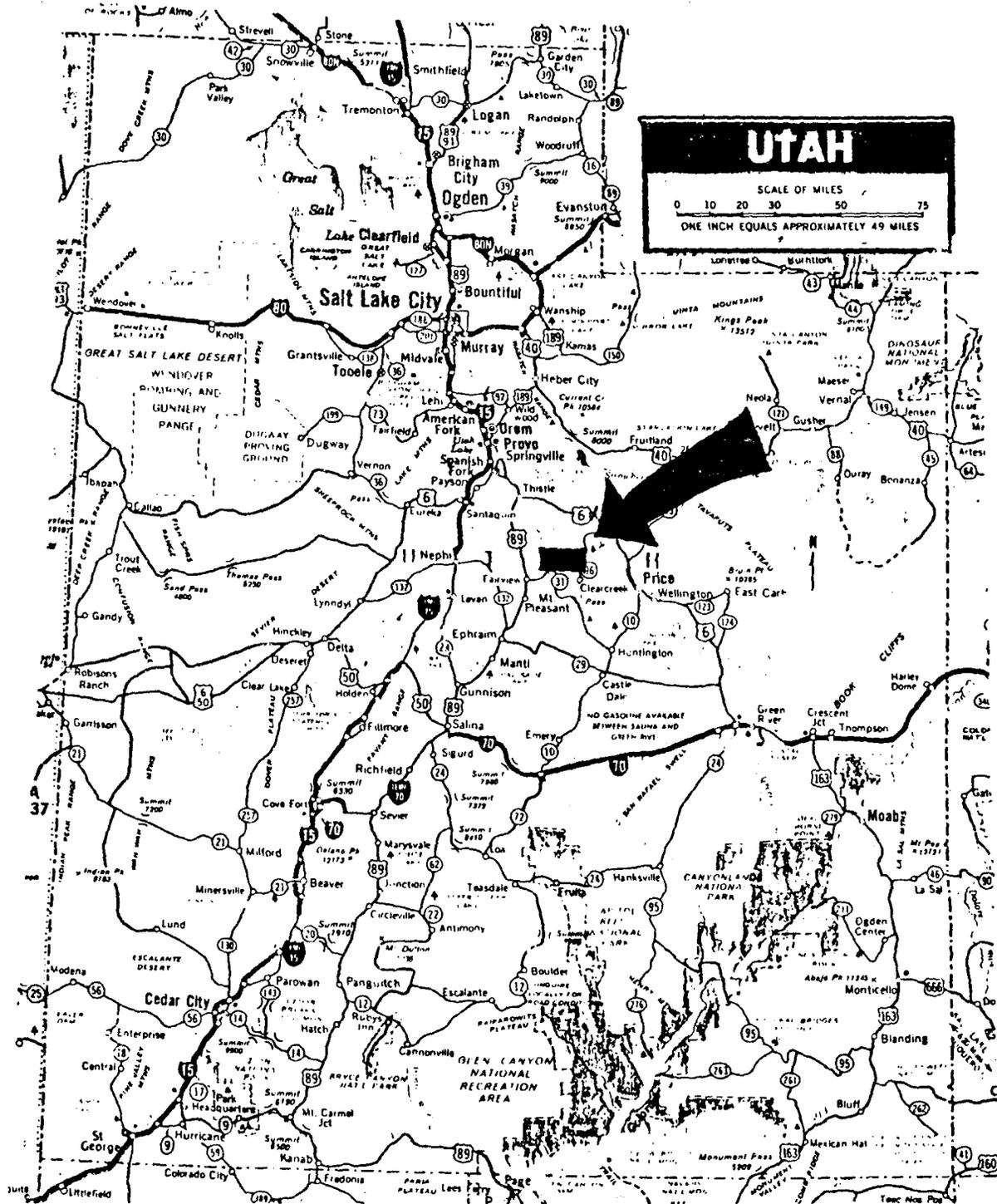
The permit area is located approximately 20 miles (50 miles by road) west of Price and Helper, Utah, and 110 miles southeast of Salt Lake City, as shown on Figure 1-1. Access to the area from Salt Lake City is via U.S. Highway 6, South to State Highway 96, and southerly along Highway 96 to the facilities.

The Valley Camp, Inc. property is located in T13 and 14 South, R6 and 7 East, and extends from Greens Canyon on the North to Cox Canyon on the South. The area is rich in coal mining history, with many abandoned mines and many operating mines, since the turn of the century.

Valley Camp, Inc. is requesting a five year mining permit. The total mine plan area, which contains this permit area, should span approximately 25 years of mining operations and recover three mineable seams.

Figure 1-1

GENERAL LOCATION MAP OF MINE PLAN AREA
VALLEY CAMP OF UTAH, INC.



782.13 IDENTIFICATION OF INTERESTS

Valley Camp, Inc., is the permit applicant and operator on the subject properties. The principal place of business for Valley Camp, Inc., is Scofield, Utah; at Scofield Route, Helper, Utah 84526. The telephone is (801) 448-9420.

The legal or equitable owners of record of the areas to be affected by surface operations and facilities of Valley Camp, Inc., are shown on the Surface Ownership Map, Map A, Volume IV. A complete listing of Surface Owners and their addresses is shown in Figure 1-4 of this Volume.

The legal or equitable owners of record of the coal to be mined are shown on the Coal Ownership Map, Map A-1, Volume IV. A complete Coal Ownership listing is shown on Figure 1-5.

The holders of record of any leasehold interest in areas to be affected by surface operations or facilities and the holders of record of any leasehold interest to be mined are discussed and presented in detail in Section 782.15, Right of Entry and Operation Information, which is included in this volume.

There is no purchaser of record under a real estate contract of areas to be affected by Surface Operations and facilities or the coal to be mined.

The resident agent of Applicant for the purpose of service of notices and orders related to operations under this application is:

W. L. Wright
Vice President-Operations
Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526
(801) 448-9456

The resident agent of Applicant pursuant to the laws of the State of Utah for service of civil process is:

C. T. Corporation
175 South Main Street
Salt Lake City, Utah 84111
(801) 364-1228

Valley Camp, Inc. is a Utah Corporation. The capital stock of Valley Camp, Inc., is 100 percent owned and controlled by The Valley Camp Coal Company. The Valley Camp Coal Company's principal corporate offices are located at 206 Seneca Street, P. O. Box 900, Oil City, Pa. 16301. The Valley Camp Coal Company is a corporation organized and existing under the laws of the State of Delaware. The capital stock of The Valley Camp Coal Company is 100 percent owned and controlled by Quaker State Oil Corporation, P. O. Box 989, Oil City, Pa. 16301. A list of Valley Camp, Inc., and its parent company's officers and directors are shown in Figures 1-2 and 1-3, respectively, of this volume, along with their addresses.

Valley Camp, Inc. has not operated any surface coal mining operation in the United States within the five years preceding the date of this application. Valley Camp, Inc. has operated underground coal mining operations during the stated time period under the same corporate name. A listing of those mines, associated permit numbers and regulatory agency responsible for such permits is found in Appendix B, Volume I.

Kanawha and Hocking Coal and Coke Company is also a subsidiary of the Valley Camp Coal Company, and provides rights necessary for conducting mining operations by Valley Camp of Utah, Inc., through various property agreements. A listing of the officers and directors for Kanawha and Hocking Coal and Coke Company is shown in Figure 1-3-1.

The resident agent for Kanawha and Hocking Coal and Coke Company is:

Walter L. Wright
Vice President
Kanawha and Hocking Coal and Coke Company
Scofield Route
Helper, UT 84526
(801) 448-9456

Figure 1-2

OFFICERS OF THE VALLEY CAMP COAL COMPANY

OFFICER	POSITION	ADDRESS
Roger A. Markle	Chairman & Chief Executive Officer	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Robert E. Olson	President & Chief Operations Officer	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Richard C. Harris	Executive Vice President Of Operations	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
James L. Litman	Vice President	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
A. Perry Mason	Vice President	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
David E. Lung	Vice President, Finance-Secretary & Treasurer	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Robert L. Woodall	Vice President Marketing & Assistant Secretary	206 Seneca Street P.O. Box 900 Oil City, PA. 16301

Figure 1-2
(Continued)

OFFICERS OF THE VALLEY CAMP OF UTAH, INC.

OFFICER	POSITION	ADDRESS
Robert E. Olson	President	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
David E. Lung	Secretary & Treasurer	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Richard K. Sager	Assistant Secretary	50 South Main Suite 1600 Salt Lake City, Utah 84144
John Kirkham	Assistant Secretary	50 South Main Suite 1600 Salt Lake City, Utah 84144

Figure 1-3

DIRECTORS OF THE VALLEY CAMP COAL COMPANY

<u>DIRECTORS</u>	<u>ADDRESS</u>
Thomas A. Anderson	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
W. Paul Hodges	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Quentin E. Wood	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Roger A. Markle	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
William J. McFate	206 Seneca Street P.O. Box 900 Oil City, Pa. 16301
Lee R. Forker	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Richard C. Harris	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Robert E. Olson	206 Seneca Street P.O. Box 900 Oil City, PA. 16301

Figure 1-3
(Continued)

DIRECTORS OF THE VALLEY CAMP OF UTAH, INC.

<u>DIRECTORS</u>	<u>ADDRESS</u>
David B. Lung	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Roger A. Markle	206 Seneca Street P.O. Box 900 Oil City, PA. 16301
Robert E. Olson	206 Seneca Street P.O. Box 900 Oil City, PA. 16301

Valley Camp, Inc. is conducting underground coal mining operations on the subject lands pursuant to mine permit number ACT/007/014 for Utah No. 2 mine, and ACT/007/001 for Belina No. 1 mine, both issued by the State of Utah. Permits concerning surface mining operations being conducted by or applications pending for the applicant or persons listed in paragraph (b) (3) of Section 782.13 of the Permanent Regulatory Program for Surface Coal Mining and Reclamation Operations are listed in Appendix B.

The owners of surface areas contiguous to the proposed permit area are shown on the Surface Ownership Map, Map A, Volume IV. The names and addresses of surface owners contiguous to the proposed permit area are shown in Figure 1-4.

The rights to mine coal in the proposed Mine Permit Area are owned or controlled by Valley Camp, Inc.. The names and addresses of subsurface, coal owners contiguous to the proposed permit area are shown on Figure 1-5 and on the Coal Ownership Map, Map A-1, Volume IV.

The Mine Safety and Health Administration ("MSHA") identification numbers for the subject mines are:

Utah No. 2	42-00126
Belina No. 1	42-01279
Belina No. 2	42-10280

There are no properties contiguous to the proposed permit area which are subject to any pending options or other undisclosed interests held or made by the applicant.

Figure 1-4

Surface Ownership of Property Affected
and Contiguous to Permit Area

(For location of these ownerships,
see the Surface Ownership Map, Map A, Volume IV)

United States of America, Dept. of Agriculture, U.S. Forest Service, 350 East Main Street, Price, Utah, 84501

Kanawha & Hocking Coal and Coke Company, P.O. Box 218, Triadelphia, West Virginia 26059

Milton A. & Bessie Oman, 61 South Main, Salt Lake City, Utah 84115

Jack Otani, P. O. Box 501, Clear Creek, Utah 84517

Della & Hilda Madsen, Meadow, Utah 84644

Hellenic Orthodox Church, Price, Utah 84501

Calvin Jacob, 754 S. Cherry., Orem, Utah 84057

Helen & Nick Marakis, P.O. Box 576, 150 E. 1st South & P. O. Box 805, 160 E. 1st South, Price, Utah

George Telonis, c/o Angelo Georgedes, 761 N. 300 E., Price, Utah 84501

Robert & Ellen Radakovich, 340 N. 600 E., Price, Utah 84501

L. Clan Stilson, 537 S. 560 E. Orem, Utah 84057

Alpine School District, 50 North Center, American Fork, Utah

Scott Cook, Fountain Green, Utah 84632

Ted Miller, c/o L. Clan Stilson, 537 S. 560 E., Orem, Utah 84057

Rescu-Med, Inc., P. O. Box 1115, Provo, Utah 84601

Figure 1-5

Coal Ownership of Property Affected
And Contiguous to Permit Area

(For location of these ownerships,
see Coal Ownership Map, Map A-1, Volume IV)

United States of America, Dept. of Agriculture, U.S. Forest
Service, 350 E. Main Street, Price, Utah 84501

Kanawha & Hocking Coal and Coke Company, P.O. Box 218
Triadelphia, West Virginia 26059

United States of America, Dept. of the Interior, Bureau of
Land Management, University Club Bldg., Salt Lake City, Utah
84138

Utah Power and Light, P.O. Box 899, Salt Lake City, Utah
84110

Western Reserve Coal Company, Inc., c/o Dean Phillips, P.O.
Box 188, Lewiston, Mo. 63452

Kaiser Steel Corp., 300 Lakeside Drive, Oakland, California
94666

Coastal States Energy Co., Nine Greenway Plaza, Houston,
Texas 77046

Noal Tanner, 2796 No. Arapahoe Lane, Provo, Utah 84601

Carbon County, County Courthouse, Price, Utah 84501

Stagstead, Inc., 4301 No. MacArthur, Oklahoma City, Oklahoma
73122

782.14 COMPLIANCE INFORMATION

Neither Valley Camp, Inc., nor any subsidiary, affiliate or persons controlled by or under common control with Valley Camp, Inc., have had a Federal or State Mining Permit suspended or revoked in the last five years.

Neither Valley Camp, Inc., nor any of the entities or persons referred to in this section have had a mining bond or similar security deposited in lieu of bond forfeited.

Valley Camp, Inc. has not received any violations with respect to surface coal mining operations, but has received the following violations concerning underground coal mining operations:

1. The Office of Surface Mining issued to Valley Camp, Inc., on December 4, 1979, a Notice of Violation, No. 79-5-3-40, of the Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) with respect to three (3) violations. A description of the Violations and information regarding their present status is as follows:
 - (a) Violation 1 of 3
"Material placed on downslope below road cut", in violation of 30 C.F.R. 211.40 (b) and 717.14 (c).

Abatement of this violation was "immediate cessation of such activities" on date of issuance.

Based upon an assigned total of 32 penalty points, a civil penalty of \$1,200.00 was later assessed.

(b) Violation 2 of 3

"Failure to pass surface drainage from the disturbed areas through sedimentation ponds", in violation of 30 C.F.R. 717.17 (a) and 211.40 (b). Abatement action included the installation of 60 feet of 24" C.M.P. and establishment of a surface ditch from the outflow end of the culvert to a sedimentation pond, and was completed on December 8, 1979. Based upon an assigned total of 35 penalty points, a civil penalty of \$1,500.00 was later assessed.

(c) Violation 3 of 3

"Failure to maintain access and haulroads as required." In violation of 30 C.F.R. 717.17 (j) (1) and 211.40 (b). Abatement action consisted of cleaning snow and ice from ditchline for a distance of 20 feet above culvert and from culvert inlet. Abatement action was completed on December 7, 1980.

Based upon an assigned total of 32 points, a civil penalty of \$1,200.00 was later assessed.

Pursuant to 30 C.F.R. 723.17, a request for a conference to review N.O.V. 79-5-3-40 was made on January 28, 1980.

Conference approval was given and later held on April 10, 1980, under the direction of an O.S.M. Conference Officer. The conference resulted in "no change" for Nos. 1 of 3 and 2 of 3. However, the total penalty points for No. 3 of 3 was reduced from 32 to 30, and resulted in the \$1,200.00 civil penalty assessment being withdrawn. A check in the amount of \$2,700.00 was issued to the Assessment Office of the O.S.M. on July 16, 1980. A petition for formal hearing was then filed on July 22, 1980. The hearing was held on December 9, 1980, with an Administrative Law Judge presiding. On May 12, 1981, the Judge's decision was issued as follows:

(a) Violation 1 of 3

"technical violation with respect to issuing the Notice of Violation - no penalty points are assessed to this violation."

(b) Violation 2 of 3

"facts do not support the issuance of the Violation notice and it is, therefore, vacated."

(c) Violation 3 of 3

"Common sense interpretation of the regulations dictates an allowance of a reasonable amount of time for the operator to correct drainage problems under extraordinary weather conditions that cannot be anticipated. The third violation is, therefore, vacated."

The Judge further decreed that the Office of Surface Mining reimburse the operator within 30 days the sum of \$2,700.00 with appropriate interest.

2. On January 8, 1980, the Office of Surface Mining issued to Valley Camp., Inc., a Notice of Violation, No. 80-5-18-7, of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description of the violation and information regarding present status follows:

(a) Violation 1 of 1

"Failure to maintain culvert which drains access road", in violation of 30 C.F.R. 717.17 (j) (3) (ii). Abatement action consisted of cleaning snow from the culvert inlet, and was completed January 9, 1980.

Based upon an assigned total of 17 penalty points, no civil penalty was assessed.

A petition for formal hearing was filed on April 28, 1980, followed by the filing of an amended petition of June 12, 1979.

The hearing on this N.O.V. was held concurrently with that of N.O.V. 79-5-3-40 on December 9, 1980.

The decision entered on May 12, 1981, on this matter is as follows:

(a) Violation 1 of 1

"technical violation with respect to issuing the violation.....is, therefore, vacated.

3. On June 23, 1980, the Office of Surface Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-5-7-15, of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description of the violation and information regarding present status follows:

- (a) Violation 1 of 1

"Failure to salvage topsoil", in violation of 30 C.F.R. 717.20 (a).

Abatement action consisting of reclaiming drill road and covering it with topsoil was completed on July 22, 1980.

This violation has been terminated.

As a result of telephone and letter conference with the conference officer, a revised assessment of 29 penalty points has been assigned.

However, no civil penalty was assessed.

4. On August 7, 1980, the Division of Oil, Gas and Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-1-3-2, of the SMCRA of 1977 (P.L. 97-85) with respect to two (2) violations. A description of the violations and present status information follows:

- (a) Violation 1 of 2

"Failure to pass surface drainage from the disturbed area through a sediment pond", in violation of 30 C.F.R. 717.17 (a).

Abatement action consisted of diverting drainage from approach road into sediment pond via

surface ditch, removal of a power pole from within the pond limitations and re-shaping the interior slopes of the south and east banks. Abatement was completed on December 19, 1980.

A proposed point total and civil penalty assessment was levied on October 16, 1980, of 32 and \$1,200.00, respectively. On November 24, 1980, an amended assessment was issued proposing 11 points and the civil assessment being dependent upon the total penalty points of both violations.

(b) Violation 2 of 2

"Failure to maintain ditches and culverts, in violation of 30 C.F.R. 717.17 (j) (3) (ii).

Abatement action consisted of cleaning a surface ditch and a culvert inlet and was completed on August 11, 1980.

A proposed point total of 28 and a civil penalty of \$800.00 were levied on October 16, 1980. On November 24, 1980, an amended assessment was issued proposing 11 points, with a total civil penalty being determined by the total penalty points of both violations. A conference was held on December 5, 1980, at the Offices of the Division. The conference resulted in "no change" for Violation 1 of 2, and a reduced point total from 11 to 9 for Violation 2 of 2. The end result was a reduction in the total penalty

points from 22 to 20 and a reduction in the civil penalty assessment from \$240.00 to \$200.00. This assessment has been paid.

5. On December 10, 1980, the Office of Surface Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-V-15-12 of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description and status follow:

- (a) Violation 1 of 1

- "Operating without an approved permit", in violation of P.L. 95-87, Section 502 (a) and 211.10 (c). This Notice of Violation was vacated on December 17, 1980.

6. On June 1, 1981, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 81-2-5-2 of the SMCRA of 1977 (P.L. 95-87) with respect to two (2) violations. A description and status follow:

- (a) Violation 1 of 2

- "Failure to post topsoil markers on topsoil or other vegetation supporting material", in violation of U.M.C. 817.11 (g).

- Abatement action consisted of placing a "Topsoil Storage - Do Not Disturb" sign at site.

- Abatement was completed within the allotted time period, and violation terminated on July 9, 1981.

A proposed point total and civil penalty assessment was levied on June 30, 1981, of 24 points and \$280.00.

A conference was held on September 1, 1981, at the offices of the Division. As a result of the conference, the validity of the violation was upheld and a final point total of 24 assessed. However, the civil penalty of \$280.00 was withdrawn and re-assessed as \$0.00.

(b) Violation 2 of 2

"Failure to protect topsoil from wind and water erosion, unnecessary compaction or contamination which lessens the capability of the material to support vegetation when redistributed", in violation of U.M.C. 817.23 (b). Abatement action consisted of consolidating remaining topsoil, digging a surface ditch around area to prevent water erosion and placing a dirt barrier across access road to prevent vehicle access. Abatement was completed within the allotted time period and violation terminated on July 9, 1981.

A proposed point total of 24 and a civil penalty assessment of \$280.00 was levied on June 30, 1981.

A conference was held on September 1, 1981, at the offices of the Division. As a result of the conference, the civil penalty of \$280.00 was withdrawn and re-assessed to \$0.00 with the

validity of the violation and penalty point assessment of 24 being upheld.

7. On July 9, 1981, the Division of Oil, Gas and Mining issued to Valley Camp, Inc., a Notice of Violation, No. N81-3-11-2 of the SMCRA of 1977 (P.L. 95-87) with respect to two (2) violations. A description and status follow:

(a) Violation 1 of 2

"Failure to comply with terms and conditions of interim permit", in violation of U.M.C. 771.19. Abatement action consisted of repairing small leak in emergency outflow pipe at mine water discharge filter pond and was completed on August 7, 1981. A proposed point total and civil assessment was levied on August 19, 1981, of 52 and \$1,080.00, respectively. A conference was held on November 3, 1981, at the offices of the Division and resulted in the point total and civil penalty being reduced to 30 and \$400.00, respectively. This assessment has been paid.

(b) Violation 2 of 2

"Failure to post perimeter markers", in violation of U.M.C. 817.11 (d).

Abatement action consisted of placing perimeter markers around disturbed area at Belina Mine, and was completed on July 20, 1981.

A proposed point total of 14 and civil penalty assessment of \$140.00 was levied on August 19, 1981.

A conference was held on November 3, 1981, at the offices of the Division, and, as a result, the point total and civil assessment was reduced to 10 points and \$100.00, respectively. This assessment has been paid.

8. On August 5, 1981, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 81-2-10-1 of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status follow:

- (a) Violation 1 of 1

"Failure to comply with terms and conditions of permit-failure to minimize erosion to the extent possible," in violation of U.M.C. 771.19 and U.M.C. 817.45.

Abatement action consisted of preparing inlet and outlet structures for a drainage culvert and was completed on August 21, 1981.

A proposed assessment of 41 points and \$640.00 was levied on August 19, 1981.

A conference was held on November 3, 1981, at the offices of the Division. Final assessment for the violation, as a result of the conference, was 17 points and \$170.00. This assessment has been paid.

9. On December 17, 1981, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation,

No. 81-2-17-1 of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description and status follow:

(a) Violation 1 of 1

"Operating without a permit, failure to conduct mine operations in accordance with an approved mine plan, unauthorized disposal of underground development waste outside the permit area", in violation of U.C.A. 1953 40-10-9 (1) U.M.C. 771.19, U.M.C. 817.71 (a).

Abatement action consisted of immediate cessation of waste removal from permit area, and was so done in the presence of the Division inspectors. A proposed total of 23 points and civil assessment of \$260.00 was levied on January 5, 1982.

A conference was held on February 2, 1982, at the offices of the Division. As a result of the conference, the final assessment for points and civil assessment was reduced to 0 points and no fine. This N.O.V. was vacated by the Division on May 3, 1982.

10. On July 21, 1982, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 82-1-9-2 of the SMCRA of 1977 (P.L. 95-87), with respect to two (2) violations. A description and status follow:

(a) Violation 1 of 2

"Failure to operate in accordance with approved plan, failure to maintain sediment" in violation of U.M.C. 817.46 (e), U.M.C. 771.19 and U.M.C. 817.45. The violation applying to the Load-out area of the operation.

The requested remedial action consisted of "cleaning sediment pond, including the removal of coal and establishing approved volume of pond." The allotted time for accomplishing abatement activity was thirty (30) days, no later than August 20, 1982.

On August 20, 1982, a request for extension of the abatement period was approved by the Division to September 20, 1982. The proposed point total of 32 points and civil assessment of \$440.00 were levied on August 31, 1982. An assessment conference for this part of the N.O.V. was made on September 24, 1982. On September 27, 1982, an additional extension of abatement period request was approved to October 19, 1982. On September 28, 1982, a check in the amount of \$440.00 was issued to the Division. This part of the N.O.V. No. 82-1-9-2 was terminated on October 20, 1982. An assessment conference was held at the offices of the Division on

November 15, 1982. The conference resulted in "no change" in either the point total or assessment amount. No further contest of this N.O.V. has occurred.

(b) Violation 2 of 2

"Failure to meet effluent limitations" in violation of U.M.C. 817.41 (c). The violation applying to the Load-out surface water monitoring points, and the Belina Complex mine water discharge.

Remedial action was to "meet effluent limitations" and "reconstruct filter pond" at the Utah No. 2 and Belina sites, respectively. Abatement of this violation was set for sixty (60) days, no later than September 19, 1982.

On August 31, 1982, a proposed assessment of 46 points and \$840.00 was issued. A request for an assessment conference was made on September 24, 1982, and a check in the amount of \$840.00 was issued to the Division on September 28, 1982. A request for extension of the abatement period was approved on September 27, 1982, and extended to November 7, 1982. An assessment conference was held on November 15, 1982, at the offices of the Division, and resulted in the point total being reduced to a "0", and the civil penalty of \$840.00 being reduced to \$0.00.

The abatement period was also extended to July 1, 1983.

On January 13, 1983, a refund in the amount of \$840.00 was received from the Division. A request for interest on this amount, for the period of retention by the Division, has been made.

11. On October 1, 1982, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 82-4-11-1 of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status report follow:

(a) Violation 1 of 1

"Failure to maintain sedimentation ponds to prevent short circuiting and ensure that water discharged from the disturbed area complies with all State and Federal water quality limitations. Failure to meet applicable State and Federal effluent limitations", Provisions of the Regulations violated being: U.C.A. 40-10-18 (2)(i)(ii), U.M.C. 817.41 (c), U.M.C. 817.42 (a) (7), U.M.C. 817.42 (c) and 817.46 (e). The violation applying to the Utah No. 2 Load-out area.

Remedial action required consisted of "repairing sediment ponds so as to ensure that they function as designed, and so that discharge from the sediment ponds will comply with all applicable ef-

fluent limitations." The abatement deadline was set at October 8, 1982; however, abatement activity occurred on October 1, 1982. This violation was terminated on October 4, 1982, by the Division. A proposed assessment of 28 points and \$360.00 was issued on October 28, 1982. A check in the amount of \$360.00 was issued to the Division on November 12, 1982.

An assessment conference was held at the offices of the Division on December 21, 1982. Final assessment for this violation, as a result of the conference, was 10 points and \$180.00. A refund in the amount of \$180.00 was received from the Division on January 13, 1983.

A request for allowable interest on the full amount of the assessment for the period of retention has been made. On February 11, 1983, a refund for this interest was received.

12. On April 12, 1983, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 83-1-1-1, of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status report follow:

- (a) Violation 1 of 1

"Failure to comply with applicable water quality effluent limitations", Provisions

of the Regulations violated being: U.C.A. 40-10-22, U.M.C. 817.41(c) and U.M.C. 817.42(a)(f); the violation applying to the Belina Mines, Sediment Pond No. 4. Remedial action required consisted of "meeting all applicable State and federal effluent limitations". The abatement deadline was set at May 12, 1983.

On June 16, 1983, a request for extension of the abatement period was made and the Division approved such request until July 11, 1983. A proposed assessment of 43 points, and \$720.00 was received on April 20, 1983. A request for an assessment conference was made on May 2, 1983. An assessment conference was held on June 8, 1983, at the Valley Camp Offices, and resulted in the point total being reduced to 27, and the civil penalty of \$720.00 being reduced to \$340.00. A check in this amount was issued to the Division on July 21, 1983.

On June 21, 1983, the abatement period was extended to July 11, 1983.

On July 21, 1983, a check in the amount of \$340.00 was issued to the Division as payment of the final assessment.

13. On April 12, 1983, the Division of Oil, Gas & Mining issued to Valley Camp of Utah, Inc., a

Notice of Violation, No. 83-7-4-1, of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status report follow:

(a) Violation 1 of 1

"Failure to pass all surface drainage from the disturbed areas through a sedimentation pond, a series of sedimentation ponds, or a treatment facility, before leaving the permit area. Failure to maintain sediment control facilities to prevent to the extent possible additional contributions of sediment to stream flow runoff outside the permit area". Provisions of the Regulations violated being: U.C.A. 40-10-18(2)(i)(ii), U.M.C. 817.42(a), U.M.C. 817.42(a)(f), and U.M.C. 817.45(i); the violation applying to the Belina access road. Remedial action required consisted of "passing all disturbed area runoff through a sedimentation pond or sediment control facility. The abatement deadline was set at April 26, 1983. However, abatement occurred on the morning of April 12, 1983. This violation was terminated on April 26, 1983, by the Division.

On June 3, 1983, a proposed assessment of 48 points and \$920.00 was issued by the Division. An assessment conference was held at the Valley

Camp Offices on June 8, 1983. Final assessment for this violation, as a result of the conference, was 24 points and \$280.00. A check in the amount of \$280.00 was issued to the Division on July 26, 1983.

14. On April 13, 1983, the Division of Oil, Gas & Mining issued to Valley Camp of Utah, a Notice of Violation, No. 83-7-5-1, of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status report follow:

- (a) Violation 1 of 1

"Failure to post perimeter markers in a manner that clearly marks the perimeter of all areas affected by surface operations or facilities", Provisions of the Regulations violated being: U.M.C. 817.11; the violation applying to the Belina Mine area. Remedial action consisted of "clearly marking the perimeter of all areas affected by the Belina No. 1 mine operation". The abatement deadline was set at May 13, 1983. The abatement of this violation was accomplished on April 13, 1983. This violation was terminated on May 12, 1983.

A proposed assessment of 26 points and \$320.00 was issued on June 3, 1983. The assessment conference for this violation was held at the Valley Camp Offices on June 8, 1983, and re-

resulted in a final assessment of 0 points and no civil penalty.

15. On July 26, 1983, the Division of Oil, Gas & Mining issued to Valley Camp of Utah, Inc., a Notice of Violation, No. 83-7-6-1, of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation.

(a) Violation 1 of 1

"Operating without a permit, failure to conduct underground coal mining activities in accordance with an approved plan", in violation of U.C.A. 40-8-17(1), U.C.A. 40-10-9, and U.M.C. 771.19; the violation applying to the Utah No. 2 portion of the mine permit area.

Remedial activity consisted of: A. Cease all construction activity associated with the new access road and scale facility until approved. B. Obtain Division approval for such modification. The allotted time for accomplishing abatement activity for each part was as follows: A. Immediately. B. Thirty (30) days from receipt (August 25, 1983). All abatement activity was accomplished as directed.

On August 2, 1983, a modification to this violation was received by mail, which incorporated the use of sediment pond excavation as fill material. This portion of the violation required remedial action of "obtaining Division

approval for use of sediment pond sediments for fill material in this construction project". Since the use of such material in such manner was never anticipated, such an approval was never requested.

The Division terminated this violation on September 1, 1983. A proposed assessment of 48 points and \$920.00 was levied on September 7, 1983. On September 14, 1983, a request for an assessment conference was made by Valley Camp of Utah, Inc. No further action has occurred on this violation as of this date.

16. On July 26, 1983, the Division of Oil, Gas & Mining issued to Valley Camp of Utah, Cessation Order No. C-83-1-1-1, with respect to one (1) violation. A description and status report follow:

(a) Violation 1 of 1

"Failure to meet effluent limitations", Provisions of the Regulations violated being: Section 40-10-22 of Utah Code Annotated 1953, U.M.C. 817.41(c) and U.M.C. 817.42(a)(7); the order applying to the discharge from the Belina Sediment Pond No. 4. Affirmative obligations and time for abatement being, "discharge may be conducted only for sampling to demonstrate compliance with effluent limitations", and ".....become effective upon receipt".

A proposed assessment of \$15,750.00 was issued on September 9, 1983. A request for assessment conference was made on September 14, 1983. This violation was terminated on August 31, 1983. No further action has occurred on this order at this time.

782.15 RIGHT OF ENTRY AND OPERATION INFORMATION

Valley Camp, Inc. has title and interest to the subject coal lands by way of warranty deeds, bills of sale, assignments, leases and easements.

United States Coal Leases

The assignments pertaining to the United States Coal Leases are listed below:

Lease No.	Associated Acreage	Issued to	Date of Issuance
U-020305	1,439.40	Emmett K. Olson	3/1/62
U-017354	1,028.47	Independent Coal & Coke Co.	1/1/62
U-044076	2,367.82	Armeda N. McKinnon	9/1/65
U-067498	501.70	Independent Coal & Coke Co.	1/1/62

These lease numbers and property locations can be found on the Coal Ownership Map, Map A-1, Volume IV. The properties are described as follows:

Lease No. U-020305 1,439.40 acres

T13S, R6E

Sec 13: Lot 7 (SW 1/4 SW 1/4)
 Sec 14: SE 1/4 SE 1/4
 Sec 23: E 1/2 E 1/2
 Sec 24: W 1/2 NW 1/4, SE 1/4 NW 1/4, S 1/2
 Sec 25: All Lots 1 thru 4, S 1/2 N 1/2, S 1/2
 Sec 26: E 1/2 E 1/2

Lease No. U-017354 1,028.47 acres ✓

T13S, R6E

Sec. 36: Lots 1 thru 4, N 1/2 S 1/2, N 1/2

T13S, R7E

Sec. 31: N 1/2 SW 1/4

T14S, R6E

Sec. 1: E 1/2 NE 1/4, NE 1/4 SE 1/4

T14S, R7E

Sec. 6: NW 1/4

Lease No. 044076 2,367.82 acres

T13S, R6E

Sec. 26: W 1/2 E 1/2, W 1/2

Sec. 27: Lots 1 thru 4, E 1/2, E 1/2 W 1/2
(excluding Lawrence Reservoir)

Sec. 34: Lots 1 thru 8, S 1/2

Sec. 35: Lots 1 thru 7, NE 1/4, E 1/2 NW 1/4, NE 1/4
SW 1/4, N 1/2 SE 1/4

Lease No. 067498 501.70 acres

T14S, R7E

Sec. 6: Lots 2, 6, 7, SW 1/4 NE 1/4, W 1/2 SE 1/4,
E 1/2 SW 1/4

Sec. 7: Lots 1, 2, 4, E 1/2 NW 1/4

For description of how leases passed to Valley Camp, Inc., see
Appendix A.

Carbon County Coal Leases

The assignments pertaining to the lease from Carbon County,
Utah, are as follows:

<u>County Lease</u>	<u>Associated Acreage</u>	<u>Issued to</u>	<u>Date of Issuance</u>
Carbon Co. Coal Lease	361.16	North American Coal Corp.	5/1/69

The property is described as follows: (For location see Coal Ownership Map, Map A-1, Volume IV)

County Lease 361.16 acres

T13S, R6E

Sec 24: W 1/2 NE 1/4, SE 1/4 NE 1/4

T13S, R7E

Sec 19: SW 1/4 SW 1/4

Sec 30: W 1/2 W 1/2

Sec 31: NW 1/4 NW 1/4

For description of how leases passed to Valley Camp, Inc. see Appendix A.

Private Coal Leases

The assignments pertaining to the private sector are as follows:

<u>Private Lease</u>	<u>Approximate Acreage</u>	<u>Issued to</u>	<u>Date of Issuance</u>
Kanawha & Hocking Coal & Coke Co.	480	Valley Camp, Inc.	8/1/74
Kanawha & Hocking Coal & Coke Co.	80	Valley Camp, Inc.	1/8/78
Kanawha & Hocking Coal & Coke Co.	80	Valley Camp, Inc.	1/1/81

This property is described as follows: (For location, see Coal Ownership Map, Map A-1, Volume IV).

Private Lease 480 acres

T13S, R7E

Sec 8: E 1/2 E 1/2

Sec 9: W 1/2 SW 1/4

Sec 16: NW 1/4 NE 1/4, NE 1/4 NW 1/4, W 1/2 NW 1/4
NW 1/4 SW 1/4

Sec 17: NE 1/4 NE 1/4

Private Lease 80 acres

T13S, R7E

Sec. 30: SE 1/4 SW 1/4

Sec. 31: SW 1/4 NW 1/4

Private Lease 80 acres

T13S, R7E

Sec. 31: S 1/2 SW 1/4

The right to enter federal coal leaseholds conveyed by the United States Government is conferred to the lessees by the Mineral Leasing Act of 1920 and the leases themselves. The right of entry for private and county coal leases is provided for through the individual leases.

The right to construct, operate and maintain access roads and a coal conveyance system from the mine portal area through Whiskey and Eccles Canyons, the right to operate and maintain coal storage and load-out facilities near the mouth of Greens Canyon, together with all other uses in connection

with ongoing operations of the lessee are conferred by the following:

1. A surface lease dated January 1, 1979, and entered into between and by Della L. Madsen and Robert G. and Hilda M. Hammond and Kanawha and Hocking Coal and Coke Company allows use, possession and occupancy of the subject lands for uses in connection with the performance of general business procedures by the lessee.

T13S, R7E

Section 19: E 1/2 SE 1/4, SW 1/4 SE 1/4, SE 1/4 SW 1/4
Section 20: W 1/2 SW 1/4
Section 29: NW 1/4 NW 1/4
Section 30: E 1/2, NE 1/4 NW 1/4

By a sub-lease effective January 1, 1981, Kanawha and Hocking Coal and Coke Company granted Valley Camp, Inc., the right to construct, operate and maintain access roads and conveyor systems over and across said lands.

2. A surface lease and right-of-way agreement dated August 14, 1975, and entered into and by Milton A. and Bessie G. Oman and Kanawha and Hocking Coal and Coke Company allows the construction, use and maintenance and other related activities of an access road; together with a right-of-way to construct, use, maintain, and other activities related to installation, use, repair, and removal of a conveyor system, electric transmission line and communication lines with poles and appurtenances, all lying within portions of Sections 17, 18, 19, 20 and 30, T13S, R7E.

Said lease also provides to the lessee, a forty (40) acre tract lying within portions of Sections 19, 20, and 30, T13S, R7E, for the purpose of conducting underground coal mining operations and related activities, including, without limitation, the construction of portals, buildings, and facilities useful to such operations. The rights under this instrument were sub-leased in their entirety to Valley Camp, Inc., by a sub-lease effective January 1, 1981.

3. A surface lease and easement agreement dated August 6, 1976, and entered into and by Helen, Nick and Koula Marakis, and Kanawha and Hocking Coal and Coke Company allows the exclusive use and possession of the surface of the subject lands for access to and egress from all other properties together with all activities related to access roads and conveyor systems required for coal transportation over, in, under, across, and along leased acreage.

T13S, R7E

- Section 8: E 1/2 E 1/2 less 2 acres, and less highway right-of-way.
- Section 9: W 1/2 SW 1/4, less Carbon County Railway right-of-way and less Utah Power and Light Company right-of-way.
- Section 16: W 1/2 less 18 acres for channel change easement
- Section 16: W 1/4 E 1/2
- Section 17: E 1/2 NE 1/4, NE 1/4 SE 1/4 less 8.99 acres highway right-of-way, less LDS church property of 16.75 acres, less 1.52 channel change easement
- Section 17: That portion of S 1/2 SW 1/4 lying North of Eccles Canyon Creek
- Section 18: That portion of S 1/2 SE 1/4 and SE 1/4 SW 1/4 lying North of Eccles Canyon Creek.

By a letter agreement dated September 13, 1976, Kanawha and Hocking Coal and Coke Company transferred to Valley Camp, Inc., the rights necessary to conduct its proposed operations within the mine plan area.

4. An easement effective January 1, 1981, between Kanawha and Hocking Coal and Coke Company, and Valley Camp, Inc., grants Valley Camp, Inc., the right to construct, operate, and maintain access roads, conveyor systems and an office building with related facilities on, over and within the following described lands:

T13S, R7E, SLB&M

Section 17: NW 1/4 NE 1/4, SW 1/4 NE 1/4, less
and excluding the Kosec property
containing approximately 2 acres.
NW 1/4 SE 1/4

Section 19: NE 1/4 SW 1/4

5. An easement effective January 1, 1981, between Kanawha and Hocking Coal and Coke Company and Valley Camp, Inc. grants Valley Camp, Inc., the right to construct, operate and maintain access roads, conveyor systems and railroad trackage with related facilities over and across portions of the following described lands:

T13S, R7E, SLB&M

Section 17: S 1/2 SE 1/4

There are no surface or subsurface rights in the permit area which are subject to any pending litigation. Surface ownership is shown on Map A, Volume IV.

782.16 RELATIONSHIP TO AREAS DESIGNATED UNSUITABLE FOR
MINING

The proposed permit area is not within an area designated unsuitable for underground coal mining activities under 30 CFR 764, 765, 769. Futhermore, the proposed permit area is not under study for designation concerning the unsuitability of the area for mining.

The mine plan area is in the Moab District of the Price River Resource Area, Bureau of Land Management, Department of Interior.

A portion of the mine plan area is situated within the Manti-LaSal National Forest, U.S. Forest Service, U.S. Department of Agriculture.

Valley Camp, Inc., does not plan to conduct or to locate surface operations or facilities within 300 feet of an occupied dwelling. There are no occupied dwellings within the mine plan area.

782.17 PERMIT TERM

The applicant is requesting a five (5) year mining permit and the following information is supplied relevant to that period.

Mining activities will occur primarily in the southern portion of the mine permit area during this initial five (5) year period. The mine permit area is shown on Map Nos. A and A-1, and is more fully described as follows:

"That area contained in the mine plan area lying north and east of a line extending through the center of Section 36, T13S, R6E, in a northwesterly-southeasterly direction, and being south and west of the north boundary line of the Mine Plan Area shown in Sections 8 and 9, T13S, R7E."

The mines will operate in two seams in the mine plan (permit) area as described in Volume III, Page 2. Individual mine projections for each mine are shown in 5 year increments on Map Nos. B-2 and B-3 in Volume IV.

	<u>Mine No. 1</u>	<u>Mine No. 2</u>
First Coal Produced	Presently Producing	Upon permit approval
Horizontal Extent of Mine	540 acres	338 acres
Vertical Extent of Mine	0' - 1000'	0' - 1050'

The additional acreage of disturbance required for surface facilities is:

<u>Area</u>	<u>Acres</u>
Mine No. 1	None contemplated
Mine No. 2	None contemplated
Conveyor	3.0
Load-Out	5.0

The approximate total of surface land acres affected at the end of the permit term is 120.0 acres.

The schedule for underground advancement for each mine during the permit term is as follows, with approximate land locations indicated.

Belina #1

<u>Miner Section</u>	<u>Date</u>	<u>Location (Section, Township, Range)</u>
1	Jan. 1, 1981	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 25-13-6
	Jan. 1, 1982	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 36-13-6
	Apr. 1, 1983	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 31-13-7
	Nov. 1, 1983	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 25-13-7
	May 1, 1985	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 30-13-7
2	Jan. 1, 1981	W $\frac{1}{2}$ NE $\frac{1}{4}$ 25-13-6
	Sep. 1, 1982	E $\frac{1}{2}$ NW $\frac{1}{4}$ 36-13-6
	May 1, 1983	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 36-13-6
	Dec. 1, 1983	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 25-13-6
3	Jan 1, 1981	W $\frac{1}{2}$ 25-13-6
4	Jan. 1, 1981	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 30-13-7
	Sep. 1, 1982	NE $\frac{1}{4}$ SE $\frac{1}{4}$ 25-13-6
	Jan. 1, 1984	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 30-13-7
	Jan. 1, 1985	W $\frac{1}{2}$ SW $\frac{1}{4}$ 30-13-7
5	Jan. 1, 1981	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 30-13-7
	Sep. 1, 1981	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 30-13-7
	Feb. 1, 1984	E $\frac{1}{2}$ SE $\frac{1}{4}$ 25-13-6
	Mar. 1, 1985	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 36-13-6

Belina No. 1 (cont.)

<u>Miner Section</u>	<u>Date</u>	<u>Location (Section, Township, Range)</u>
6	Feb. 1, 1981	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 25-13-6
	Oct. 1, 1981	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 36-13-6
	May 1, 1982	SE $\frac{1}{4}$ NW $\frac{1}{4}$ 36-13-6
	Sep. 1, 1983	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 25-13-6
	Feb. 1, 1985	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 30-13-7

For details, see Volume IV, Map B-2 - Belina #1

Belina #2

<u>Miner Section</u>	<u>Date</u>	<u>Location (Section, Township, Range)</u>
1	June 1, 1981	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 30-13-7
	Dec. 1, 1981	E $\frac{1}{2}$ 25-13-6
	Sep. 1, 1984	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 36-13-6
2	Mar. 1, 1982	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 24-13-6
	Feb. 1, 1983	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 25-13-6
	June 1, 1985	SE $\frac{1}{4}$ NW $\frac{1}{4}$ 25-13-6
3	June 1, 1982	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 25-13-6
	Jan. 1, 1984	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 30-13-7
4	Jan. 1, 1983	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 25-13-6
	May 1, 1985	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 36-13-6
5	Jan. 1, 1984	NW $\frac{1}{4}$ SE $\frac{1}{4}$ 25-13-6

For details, see Volume IV, Map B-3 - Belina #2

Life of Mines Information

In addition to the permit term information, the following is generalized information for the life of the mining operations.

	<u>Mine No. 1</u>	<u>Mine No. 2</u>	<u>Mine No. 3</u>
First Coal Produced	Presently Producing	Upon permit approval	Unknown
Termination of Mining	25-30 yrs.	25-30 yrs.	10-15 yrs.
Horizontal Extent of Workings	2494 acres	2600 acres	800 acres
Vertical Extent of Workings	0'-1127'	0'-1200'	0'-675'

The anticipated number of total acres to be disturbed by underground mining during the life of all mining operations is 3136 acres.

The approximate total of surface land acres to be affected during the life of all mining activities is 150.0 acres.

782.18 PERSONAL INJURY AND PROPERTY DAMAGE INSURANCE

Valley Camp, Inc., is insured for liability through policies issued to The Valley Camp Coal Company, et. al. including Valley Camp, Inc. A Certificate of Insurance is included in this section of the permit application as Figure 1-6.

782.19 OTHER LICENSE AND PERMITS

Figure 1-7 is a list of permits, licenses and identification numbers applicable to mines or facilities within the permit area.



Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY
Alexander & Alexander, Inc.
Post Office Box 2896
Winston-Salem, North Carolina 27102

COMPANIES AFFORDING COVERAGES	
COMPANY LETTER	A The Travelers Insurance Company
COMPANY LETTER	B
COMPANY LETTER	C
COMPANY LETTER	D
COMPANY LETTER	E

NAME AND ADDRESS OF INSURED
Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	Limits of Liability in Thousands (000)		
					EACH OCCURRENCE	AGGREGATE
A	GENERAL LIABILITY	TRSLG165T412-3-80	4/1/81	BODILY INJURY	\$	\$
	<input checked="" type="checkbox"/> COMPREHENSIVE FORM			PROPERTY DAMAGE	\$	\$
	<input checked="" type="checkbox"/> PREMISES—OPERATIONS			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$ 1,000	\$ 1,000
	<input checked="" type="checkbox"/> EXPLOSION AND COLLAPSE HAZARD			PERSONAL INJURY		\$ 1,000
	<input checked="" type="checkbox"/> UNDERGROUND HAZARD					
	AUTOMOBILE LIABILITY			BODILY INJURY (EACH PERSON)	\$	
	<input type="checkbox"/> COMPREHENSIVE FORM			BODILY INJURY (EACH ACCIDENT)	\$	
	<input type="checkbox"/> OWNED			PROPERTY DAMAGE	\$	
	<input type="checkbox"/> HIRED			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	
	<input type="checkbox"/> NON-OWNED			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	\$
	EXCESS LIABILITY			STATUTORY	\$	(EACH ACCIDENT)
	<input type="checkbox"/> UMBRELLA FORM					
	<input type="checkbox"/> OTHER THAN UMBRELLA FORM					
	WORKERS' COMPENSATION and EMPLOYERS' LIABILITY					
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

In the event of cancellation, non-renewal or material change

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail XXXXXX days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

DATE ISSUED: December 8, 1980

John W. Hunt
John W. HUNT AUTHORIZED REPRESENTATIVE
ALEXANDER & ALEXANDER, INC.

Figure 1-7

OTHER PERMITS AND LICENSES

Permit Name	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>U.S. GEOLOGICAL SURVEY</u> , 2040 Administration Building, 1745 West 1700 South, Salt Lake City, Utah 84138		
Mining & Reclamation Plan - Approval Letter - 10 Feb. 1977		Emphasis on mining operation and coal resources
<u>U.S. OFFICE OF SURFACE MINING</u> , Brooks Tower, Second Floor, 1020 15th Street, Denver, Colorado 80202		
Notice of Intent to Explore		N/A at this time, submit prior to exploration.
Mining & Reclamation Plan		Emphasis on surface operation and reclamation. Included in permit application.
<u>U.S. ENVIRONMENTAL PROTECTION AGENCY</u> , Region VIII, 1860 Lincoln Street, Denver, CO 80295		
Prevention of significant Deterioration (PSD) Permit (Air)	Not required, letter dated <u>7 May 1980 & 23 May 1975</u> from Utah Dept. of Health	1. Process emission, 2. Impact of secondary growth, 3. Air cleaning equipment
Oil Spill Prevention Control & Countermeasure Plan (SPCC)		1. Facility drainage, 2. Bulk storage tanks, 3. Transfer operations, 4. Loading & unloading. On file.
National Pollutant Discharge Elimination System (NPDES) Permits (Water)	UT-0022985	Processed by State and approved by Environmental Protection Agency (EPA)

Permit No.	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>U.S. FOREST SERVICE -</u>		
Surface Disturbance & Reclamation Plan	Price, Utah 84501 Agreement dated 9/25/79	Emphasis on subsidence and hydrology
Exploratory Drilling Permits	Not required at this time	Location Depth, N/A at this time, prior to drilling
Seismic Drilling Permit	Not required at this time	Requires approval of plan, proper abandonment and reclamation, N/A at this time
Special Use Permit	Not required at this time	1. Land description, 2. Purpose, 3. Size and improvements. Applies to off-lease activities on or off USFS land associated with a project of USFS land
<u>U.S. TREASURY DEPARTMENT</u>		
Washington, D. C.		
Explosive Storage and Useage Permit	Explosives are not normally used. When used they are purchased in small quantities and handled according to state and federal regulations.	Use of explosives - during construction - during operation
<u>U.S. FEDERAL COMMUNICATION COMMISSION,</u> Washington, D.C. 20554		
License in the Private Operational Fixed Microwave Radio Service	License #2744-15886	

Permit Name	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>MINE SAFETY AND HEALTH ADMINISTRATION</u> , U.S. Dept. of Labor, P.O. Box 25367, Denver Federal Center, Denver, CO 80225		
ID No. and Safety Plans. Operator & Contractors	Belina #1 - #42-01279 Coal Handling Facilities #42-01126 Belina #2 - #42-01280	
Roof Control Plan - Mine	August, 1980 Approved	Reviewed every six months. Commencing mine development after establishing mine ventilation
Ventilation System - Methane and Dust Control Plan - Mine	July 28, 1980 Approved	Reviewed every six months. Commencing mine development after establishing mine ventilation
Escapeway Map	July 28, 1980 Approved up dated monthly	Underground mine. Commencing underground mining
Fan Installation Plan	July 28, 1980	Commencing mine development after construction
Fan Stoppage Plan Fire Fighting and Excavation Plan	July 28, 1980 exercice every 90 days	Commencing underground mining Pertains to surface structures. Commencing operations
Training Program	8 hours refresher min. per year for experienced and upon hire for inexperienced.	Detailed training report. 1. 24-Hour Miner Training, 2. Hazard Review. Commencing mining.

Project Name	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>MINE SAFETY AND HEALTH ADMINISTRATION (Continued)</u>		
Plan for Sealing Abandoned Sections	Ventilation plan July, 1980	Part of ventilation system - methand and dust control plan 75.330-1. Commencing mine development after establishing mine ventilation
Program for Smoking Materials	Once per week UMS 1007 Record	Commencing mining
Emergency Medical Assistance	Carbon Hospital & Private Ambulance 24 hour service	Commencing construction
Statement Listing Electrical Equipment	Electrical equipment location shown on map in Mine Office	Commencing underground mining
Plan for Providing for Safety of Workmen	Company safety rules are provided	Commencing construction
Communications Systems Plan	Telephones, short wave pagers	During construction
Fire Fighting & Evacuation Plan & Training	Part of ventilation Plan Sec. 75-1713-30 training every 90 days	1. Location of fire, equipment, escape-ways, travel routes, 2. Evacuation procedure. During construction.
Emergency Shelter Plan	None	During construction
Cleanup Program	Part of ventilation plan, July 28, 1980	Cleanup and removal program for accumulation of coal, dust, and other combustibles. During construction.
Mining Around Oil or Gas Wells Program		Avoidance or temporarily abandoning well. Prior to mining within 300' of a well.

MINE SAFETY AND HEALTH ADMINISTRATION (Continued)

Refuse Pile Plan Cert. and Aband.	No pile planned	Report within 180 days of acknowledgement of preliminary location letter: 1. Construction and maps, 2. Drainage and stability, 3. Cross section. Prior to starting pile
Impoundment Plan Cert. Inspec. and Aband. - Water, Sediment or Slurry	Not applicable at this site	1. Watershed effecting, 2. Foundation, 3. Construction material, 4. Drawings and graphs, 5. Runoff and spillway, 6. Slope stability. Prior to construction of ponds of 20 acre feet or dam height of 20 feet or more. Applies to water, sediment or slurry ponds.

UTAH INDUSTRIAL COMMISSION (MINE HEALTH AND SAFETY)

Notice of Intent to Mine		General mining maps, start of employment
Permit to Operate Equipment		Diesel equipment etc. Start of equipment operations
Explosive Storage Certificate of Compliance	Explosives are not normally used. When used they are purchased in small quantities and stored according to state and federal regulations.	1. Location of magazine, 2. Explosives to be stored. Prior to storing explosives.
		Start of construction
Ground Control Plan		Safe Control of spoil banks, Prior to mining. Not applicable.

Permit Name	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>UTAH DEPARTMENT OF HEALTH, Division of Environmental Health, 150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110</u>		
Wastewater Disposal Belina Site	Construction permit August 20, 1979	Guidelines for construction and standards for operation.
Utah #2	Construction permit March 3, 1975	Permission to build
Office	Construction permit issued Dec. 4, 1975	Permission to build
Air Quality Belina area and haulroad	Approved by letter May 7, 1980	Air quality approval - air pollution control plan
Utah #2 Coal Handling Facility	May 23, 1975	Air quality approval - air pollution control plan
Bureau of Solid Waste - Solid Waste Management Disposal Facility Permit		1. Plot or map, 2. Special provisions, 3. Type of waste, 4. Soil description, Not applicable, letter agreement with Scofield.
<u>UTAH DIVISION OF OIL, GAS AND MINING, 1588 West North Temple, Salt Lake City, Utah 84116</u>		
Monitoring Well Permit		1. Location and depth, 2. Use and method. Not applicable at this time
Mining and Reclamation		Draft of permanent State plan not yet complete. Included in OSM permit.

Permit Name	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>DEPARTMENT OF TRANSPORTATION</u>	P. O. Drawer R - Price, Utah	84501
Eccles Canyon Road Improvement	Agreement dated Jan. 1980 with counties involved.	Coordination with DOH concerning improve- ment and funding.
Crossing of State 96 - Permit		(Other state right-of-way required from appropriate agency if cross state land) Prior to construction of conveyer, crossing permit will be obtained.
<u>STATE ENGINEER</u>	Division of Water Rights, 200 Empire Bldg, 231 East 400 South, Salt Lake City, Utah	84111
Underground Water Appropriation		1. Source and use, 2. Point of diversions, 3. Storage, not required at this time.
Point of Diversion, Change Application, Upper Eccles, Lower Eccles, Scofield Reservior, Clear Creek		Applies to 160 acre feet (30 acre feet presently at Upper Eccles) Not applicable at this time
Test Well Permit		N/A
Ground Water Monitoring Well		N/A
100' Buffer Zone Variance		Statement of plans, construction within 100' of stream (Sedimentation ponds) Not required at this time.
<u>SOUTHEASTERN UTAH ASSOCIATION OF GOVERNMENTS</u>	- P.O. DRAWER AI - Price, Utah	84501
Review		Recommendations to county. 208 plan compliance

Permit Name	License #, Approval or Submittal Date	Requirements, Contents, and Remarks
<u>CARBON COUNTY</u> , Carbon County Courthouse, Price, Utah	84501	
Right-of-way & Construction Use		Pipelines, railroads, power lines. Before right-of-way construction
Building Permit	Coal Handling #1431 Bath House #1428	Issued by building inspector
Sewage Disposal System		Input by County Sanitation as part of state approval.
Grading Permit		1. Grading drawings, 2. Calculations, 3. Soil reports. Letter of Agreement
Burning Permit		Obtain from Sheriff Department. Prior to burning brush. Required to burn excess debris. Will obtain if necessary.
County Road Overload Approval		Required for transporting excessive loads on county roads. Obtained prior to need.

782.20 IDENTIFICATION OF LOCATION OF FILING APPLICATION

A copy of this Permit Application shall be simultaneously filed for public inspection with the County Recorders of Carbon County, Carbon County Courthouse, Price, Utah, and Emery County, Emery County Courthouse, Castle Dale, Utah, as well as with the Division of Oil, Gas and Mining (DOGM) for the State of Utah.

782.21 NEWSPAPER ADVERTISEMENT

Valley Camp, Inc., will advertise the filing of this Permit Application in the Price Sun-Advocate and Emery County Progress (local papers serving Southeastern Utah) on dates determined by DOGM. Proof of publication will be submitted as an addendum to this application. A copy of the advertisement to be submitted for publication is included in this Volume as Figure 1-8.

Figure 1-8

PROPOSED PUBLIC NOTICEFOR FILING UNDERGROUND MINING PERMIT APPLICATIONS

Valley Camp, Inc., wishes to advise the public that it has filed an Underground Mining Permit Application with the State of Utah Department of Natural Resources, Division of Oil, Gas and Mining, and the Office of Surface Mining Reclamation and Enforcement, United States Department of Interior. Valley Camp further advises the public of the following:

1. The full name and business address of the applicant is:

Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526

2. The Valley Camp, Inc. permit area is located in Carbon and Emery Counties, Utah, approximately 20 miles (50 miles by road) northwest of Price, Utah, and 110 miles southeast of Salt Lake City, Utah (shown on Figure 1-1). Scofield is situated in Pleasant Valley and is accessible by an all-weather road, State Highway 96. This highway intersects U.S. Highways 6 & 50 at Colton Junction, approximately 15 miles northeast of Scofield, Utah. From Colton Junction, U.S. Highways 6 & 50 bear northwesterly to the Interstate 15 Junction at Spanish Fork, Utah. From Colton Junction south-eastward, U.S. Highways 6 & 50 follow Price Canyon to Price, Utah.

The Valley Camp, Inc., property is located approximately 2 miles south of Scofield, and extends from Green Canyon on the north to Cox Canyon on the south.

3. The land areas contained in the permit application are more fully described as follows:

T14S R7E

Section 7 NW 1/4, and NE 1/4 of NE 1/4
 Section 6 W 1/2, and W 1/2 of E 1/2

T14S R6E

Section 1 E 1/2 NE 1/4, and NE 1/4 of SE 1/4

T13S R7E

Section 31 SW 1/4, and W 1/2 of NW 1/4
 Section 30 W 1/2 of W 1/2, SE 1/4 of SW 1/4, and NE 1/4 of NW 1/4
 Section 21 Portions of NW 1/4 of NW 1/4
 Section 20 Portions of NE 1/4 of NE 1/4
 Section 19 S 1/2 of SW 1/4, NE 1/4 of SW 1/4 and portions of W 1/2 of E 1/2, E 1/2 of NW 1/4, and NE 1/4 of NE 1/4
 Section 18 S 1/2 of SE 1/4, and SE 1/4 of SW 1/4
 Section 17 E 1/2 excluding portions of SE 1/4 of E 1/2, and portions of S 1/2 of SW 1/4
 Section 16 W 1/2 of W 1/2
 Section 9 W 1/2 of SW 1/4
 Section 8 E 1/2 of SE 1/4

T13S R6E

Section 36 All
 Section 35 Portions of E 1/2 of E 1/2, and SW 1/4 of SE 1/4
 Section 25 E 1/2, and portions of W 1/2
 Section 24 SE 1/4 and portions of S 1/2 of NE 1/4, NW 1/4 NE 1/4, and E 1/2 of SW 1/4

4. All lands associated with this application are shown on the Scofield, Utah, 7½ minute USGS quadrangle map.
5. A copy of the application will be available for public inspection at the Carbon and Emery Counties Recorders' Offices.
6. Written comments on the proposed application may be submitted to:

Division of Oil, Gas and Mining
 Department of Natural Resources
 1588 West North Temple
 Salt Lake City, Utah 84116

Office of Surface Mining
 U. S. Department of the Interior
 Brooks Tower Second Floor
 1020 15th Street
 Denver, Colorado 80295

771.23 PREPARATION OF PERMIT APPLICATION

In addition to Valley Camp of Utah personnel, the following assisted or were consulted in the preparation of the application:

1. United States Department of the Interior, Office of Surface Mining, Reclamation and Enforcement, Region 8, Brooks Towers, 1020 15th Street, Denver, Colorado 80202 (303) 837-3773
2. State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, 1588 West North Temple, Salt Lake City, Utah 84116 (801) 533-5771
3. United States Geological Survey, Utah Region, Salt Lake City, Utah 84116 (801) 524-4585
4. Department of the Interior, Bureau of Land Management, District and Regional Office, Salt Lake City, Utah 84116 (801) 524-5348
5. United States Department of Agriculture, Soil Conservation Service, Salt Lake City, Utah 84116 (801) 524-5068
6. State of Utah, Department of Natural Resources, Division of Wildlife Resources, Salt Lake City, Utah 84116 (801) 533-9333
7. Golder Associates, Inc., Chief Consultants, 4671 Bayard Park Drive, Evansville, Indiana 47715 (812) 473-2097
8. Vaughn Hansen Associates, Consultant - Hydrology, Geology, Ground water, Surface water, and Climatology information, Waterbury Plaza - Suite A, 5620 South 1475 East, Salt Lake City, Utah 84121 (801) 272-5263

9. Dr. Richard Hauck, Consultant - Archeological Resource Inventory, 588 West 800 South, Bountiful, Utah 84010 (801) 292-7061
10. Dr. Joseph Murdock, Brigham Young University, Consultant - Vegetation and Soils, 110 B-49, Provo, Utah 84602 (801) 378-2583
11. Dr. Clyde Pritchett, Brigham Young University, Consultant - Wildlife, 340 MLBM, Provo Utah, 84602 (801) 378-2419
12. Dr. Stanley Welsh, Consultant - Endangered Plant Species, 129 North 1000 East, Orem, Utah 84057 (801) 378-2289
13. Dr. Clayton White, Brigham Young University, Consultant - Raptors and Ornithology, 161 WIDB, Provo, Utah 84602 (801) 378-2263
14. Dr. Robert Winget, Brigham Young University, Consultant - Aquatic Ecology, 115 Page Building, Provo, Utah 84057 (801) 378-4372

The overall coordination and supervision of the Valley Camp, Inc., permit application was under the direction of Golder Associates, Inc., represented by Glenn J. Phillips, P.E. Mr. Phillips is a registered engineer in the states of North Dakota, Ohio, Illinois and Indiana, and has made application for registration in Utah.

The hydrologic work was done under the direction of Dr. Vaughn Hansen, P.E., registered in the State of Utah.

The design and construction of the Underground Development Waste structure was done under the direction of Golder Associates, represented by Alan Gass, P.E., registered in the State of Utah.

Glenn Phillips



Registered Professional Engineer
Illinois #62-28941

16 January 1981

APPENDIX A

The following narrative description provides a general summary of the chains of title with respect to the coal leases held by Valley Camp of Utah, Inc. within the mine plan area.

U.S. Coal Lease U-020305

A coal prospecting permit was issued to Emmet K. Olson effective March 1, 1958 on the lands covered by this lease. On December 8, 1959 an extension of the permit was requested and the permit was extended for two years to and including March 1, 1962. Emmet K. Olson was issued a Preference Right Coal Lease on March 7, 1962 effective March 1, 1962. An Assignment from Emmet K. Olson to Malcolm N. McKinnon dated April 24, 1962 was filed on May 1, 1962 effective August 1, 1962.

On October 29, 1975 a Sublease was entered into between Frank Armstrong and Zions First National Bank, executors of the estate of Malcolm N. McKinnon, deceased, and Armeda N. McKinnon with Routt County Development, Ltd.

Pursuant to an Exchange Agreement dated September 15, 1975, Routt County Development, Ltd. entered into a Sublease of the portion of land within the mine plan area to Energy Fuels Corporation. This Sublease was then assigned to Valley Camp of Utah, Inc. Subsequent to that Assignment the Sublease was assigned to Kanawha and Hocking Coal and Coke Company and a subsequent Sublease was entered into between Kanawha and Hocking Coal and Coke Company and Valley Camp of Utah, Inc. All of the documents necessary to accomplish these transfers are of record and have been approved by the Bureau of Land Management.

U.S. Coal Lease U-017354

This lease was originally issued to Independent Coal and Coke Company effective September 1, 1956. A Modified Coal Lease was issued January 1, 1962, effective September 1, 1956. This Modified Coal Lease added lands applied for under Serial No. U-067374 to the above-captioned lease. By Assignment of January 2, 1968 approved effective April 1, 1968, the lease was transferred by Independent Coal and Coke Company to The North American Coal Corporation. North American then assigned this Lease to Kanawha and Hocking Coal and Coke Company on June 27, 1973. A Sublease of United States Coal Lease U-017354-067374 was entered into between Kanawha and Hocking Coal and Coke Company and Valley Camp

Appendix A
Page 2

of Utah, Inc. An Amendment to Sublease was entered into June 12, 1978 between Kanawha and Hocking Coal and Coke Company and Valley Camp of Utah, Inc. All of the documents necessary to accomplish these transfers are of record and have been approved by the Bureau of Land Management.

U.S. Coal Lease U-044076

A Coal Prospecting Permit was issued to Armeda N. McKinnon on November 1, 1960. This permit was extended for two years from November 2, 1962. On November 2, 1964 Armeda N. McKinnon filed an application for Preference Right Coal Lease and a lease was issued to her on September 1, 1965.

On October 29, 1975 a Sublease was entered into between Frank Armstrong and Zions First National Bank, executors of the estate of Malcolm N. McKinnon, deceased, and Armeda N. McKinnon with Routt County Development, Ltd.

Pursuant to an Exchange Agreement dated September 15, 1975, Routt County Development, Ltd. entered into a Sublease of the portion of land within the mine plan area to Energy Fuels Corporation. This Sublease was then assigned to Valley Camp of Utah, Inc. Subsequent to that Assignment the Sublease was assigned to Kanawha and Hocking Coal and Coke Company and a subsequent Sublease was entered into between Kanawha and Hocking Coal and Coke Company and Valley Camp of Utah, Inc. All of the documents necessary to accomplish these transfers are of record and have been approved by the Bureau of Land Management.

U.S. Coal Lease U-067498

This lease was originally issued to Independent Coal & Coke Company effective January 1, 1962. An Assignment to The North American Coal Company was made January 2, 1968 effective April 1, 1968. North American Coal Corporation assigned the lease to Kanawha and Hocking Coal and Coke Company on June 27, 1973. Kanawha and Hocking Coal and Coke Company is a sister corporation to Valley Camp of Utah, Inc. and the necessary leases will be entered into prior to the conduct of any mining operations on this lease. All of the documents necessary to accomplish these transfers are of record and have been approved by the Bureau of Land Management.

Carbon County Coal Lease

This lease was originally entered into on May 1, 1969 between Carbon County, Utah and The North American Coal Corporation. On

Appendix A
Page 3

June 27, 1973 the lease was assigned from The North American Coal Corporation to Kanawha and Hocking Coal and Coke Company. A renewal of this lease in favor of Kanawha and Hocking Coal and Coke Company was issued May 1, 1974 for a period of ten years. A Sub-lease of the lease was entered into January 1, 1978 between Kanawha and Hocking and Valley Camp of Utah, Inc.

APPENDIX B

Tables I, II, III - Identify coal mining permits held by The Valley Camp Coal Company and subsidiary companies in the State of West Virginia subsequent to 1970.

Table IV - Identify interim permits authorizing The Valley Camp Coal Company and subsidiary companies to conduct surface coal mining and reclamation operations in the State of West Virginia.

TABLE I

A.M.C. - Alexander Mining Co.
 DON - Donaldson Mining Co.
 KNR - Kelley's Creek and
 Northwestern R.R.

Regulatory Authority: W. Virginia Dept. of Natural Resources

<u>Permit No.</u>	<u>Facility</u>
179-70	V.C. No. 10 - Surface Mine
438-70	V.C. No. 10 - Surface Mine
576-70C	V.C. No. 14 - Surface Mine
586-70	V.C. No. 10 - Surface Mine
27-71	Prospecting Permit
333-71	V.C. No. 6 - Surface Mine
26-72	V.C. No. 10 - Surface Mine
59-72	Prospecting Permit
118-72	V.C. No. 10 - Surface Mine
154-72	Witcher Cr. S & Mine
236-72	V.C. No. 14 - Surface Mine
4-73	V.C. No. 14 - Surface Mine
10-73	Prospecting Permit
48-73	V.C. No. 10 - Surface Mine
104-73	V.C. No. 6 - Surface Mine
4-74	Prospecting Permit
73-74	Prospecting Permit
16-75	V.C. No. 6 - Surface Mine
197-75	Prospecting Permit
205-75	V.C. No. 6 - Surface Mine
260-76	V.C. No. 6 - Surface Mine

TABLE II

Regulatory Authority: West Virginia Dept. of Mines

<u>Permit No.</u>	<u>Facility</u>
D-145	V.C. No. 9 Tunnel
D-318 (A.M.C.)	Alexander Mine
D-319	V.C. no. 3 Mine
D-4122	V.C. No. 1 Mine
D-5295	V.C. No. 21A Mine
D-5763	V.C. No. 5A Mine
D-5925	V.C. No. 30 Mine
D-6172	V.C. No. 31 Mine
D-6337	V.C. No. 32 Mine
D-6632-S	V.C. No. 32A Mine
D-66739	V.C. No. 34 Mine
D-6747-S	V.C. No. 32B Mine
D-6799	V.C. No. 12A Mine
D-6800	V.C. No. 15A Mine
D-6801	V.C. No. 15 Mine
D-8083	V.C. No. 35 Mine
D-8084	V.C. No. 36 Mine
D-8213	V.C. No. 37 Mine
D-8661	V.C. No. 39 Mine
D-8740	V.C. No. 40 Mine
D-8839	V.C. No. 41 Mine
D-8840	V.C. No. 42 Mine
D-10668	V.C. No. 43 Mine
4779	#6 Strip
15477	#17 Surface
14377	#46 Surface
1880	#45 Surface

TABLE III

Regulatory Authority : Mine Safety and Health Administration

<u>Permit No.</u>	<u>Facility</u>
46-01348	V.C. No. 10 Surface Mine
46-01349	V.C. No. 5A Mine
46-01351-0	V.C. No. 6 Surface Mine
46-01352	V.C. No. 31 Mine
46-01353	V.C. No. 30 Mine
46-01354	V.C. No. 9 Tunnel
46-01440-0	Alexander Mine ,
46-01482-0	V.C. No. 3 Mine
46-01483-0	V.C. No. 1 Mine
46-01977	V.C. No. 12A Mine
46-02121	V.C. No. 34 Mine
46-02422	V.C. No. 14 Surface Mine
46-02423	V.C. No. 10A Auger Mine
46-02513	V.C. No. 14A Auger Mine
46-03178	V.C. No. 37 Mine
46-03305	V.C. No. 15 Mine
46-03307	V.C. No. 15A Mine
46-03308	V.C. No. 35 Mine
46-03309	V.C. No. 36 Mine
46-03867	V.C. No. 46 Surface Mine
46-03886	V.C. No. 39 Mine
46-04053	V.C. No. 40 Mine
46-04135	V.C. No. 41 Mine
46-04136	V.C. No. 42 Mine
46-05551	V.C. No. 17 Surface Mine
46-05630	V.C. No. 18 Mine
46-05906	V.C. No. 43 Mine
46-06103	V.C. No. 45 Mine

TABLE IV

Regulatory Authority is West Virginia Dept. of Natural Res.

	<u>Permit No.</u>	<u>Facility</u>
	143-73	V.C. No. 46 Surface Mine
	154-77	V.C. No. 17 Surface Mine
	47-79	V.C. No. 6 Surface Mine
	18-80	V.C. No. 45 Surface Mine
Existing Mine	EM-19	V.C. No. 36 Mine
	EM-20	V.C. No. 9 Tunnel
	EM-21	V.C. No. 12A Mine
	EM-22	V.C. No. 40 Mine
	EM-23	V.C. No. 15A Mine
	EM-24	V.C. No. 15 Mine
	EM-30	V.C. No. 42 Mine
Haulroad	H-57	Witcher Creek Haulroad
	H-318	V.C. No. 17 Haulroad
	H-348	V.C. No. 17 Haulroad
	H-473	V.C. No. 15 & 15A Access Road (Paved)
	H-473	V.C. No. 43 Haulroad
Incidental facility	I-508	Bufflick Tipple
	I-527	Witcher Creek Bathhouse
	I-540	Shrewsbury Office Complex
	I-543	Kelly's Cr. & N.W. RR River Tipple
Prep. Plant	P-553	V.C. No. 8 Prep. Plant
Refuse or Impoundment	R-507	Sediment Dam for V.C. No. 36 & 40 Mines
	R-523	Donaldson Mine Co. Prep. Plant
Underground Opening	UO-634	V.C. No. 43 Mine

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16 November 1983

INTRODUCTION

DIVISION OF

COAL & MINING

This document is submitted in response to the "Remaining Permit Application Package (PAP) Inadequacies" as delivered to Valley Camp on October 14, 1983.

Valley Camp's responses are presented in the same sequence as the comments in the Technical Deficiency Document were presented. The reviewer's comments are reproduced verbatim, followed by Valley Camp's responses. In some cases, Valley Camp has provided revised pages and/or maps to be substituted into the permit application documents that were submitted at an earlier date.

Appendix L of Volume VI, Geotechnical Report, is included in this submittal for insertion into that volume.

A complete listing of each section, found in the PAP, follows with comments.

- 761.11- - - - -No response offered at this time as per instructions.
- 782.13- - - - -Response submitted, substitute page 5a (782.13(c)-1) into Section 782.13 of Volume I.
- 782.14- - - - -Response submitted, substitute pages 14 through 16L into Section 782.14 of Volume I.
- 782.15- - - - -Response submitted, substitute page 782.15-2 into Section 782.15 of Volume VI.
- 782.17(b)- - - - -Response submitted, substitute Map Nos. B-2 and B-3 into Envelope Nos. 5 and 6 of Volume IV. Discard the original 200 scale maps.

Substitute pages 782.17-1 and 2 into Section 782.17 of Volume VI.

Substitute page 6 into Section 782.17, of Volume III.
- 782.19- - - - -Response submitted, substitute pages 4C and 4I into Section 782.19 of Volume V.
- 783.19- - - - -Response submitted, substitute page 783.19-3 after 783.19-2, Section 783.19 of Volume VI.

- 783.22- - - - -Response submitted.
- 784.11- - - - -Response submitted.
- 784.13- - - - -Response submitted.
- 784.13(b) (4)- -Response submitted, insert page 784.13
(b) (4)-2 into Section 784.13 of Volume
VI.
- 784.13(b) (5)- -Response submitted.
- 784.14- - - - -Response submitted.
- 783.15/784.14 -Response submitted, substitute Revised
Map C-5 into Envelope 10 of Volume VI.
Remove and discard existing C-5 map.
Substitute page 783.15/784.14-4 into
Section 783.15 of Volume VI.
- 784.15- - - - -Response submitted.
- 784.20- - - - -Response submitted.
- 784.21- - - - -Response submitted.
- 817.97- - - - -Response submitted.
- 784.22- - - - -Response submitted, insert Figures 3-35
and 3-36 into Section 784.22 of Volume
VI.
Substitute page 784.22-2 into Section
784.22 of Volume VI.
- 784.23- - - - -Response submitted, insert page 18 into
Section 784.23 of Volume VI.
- 817.54- - - - -Response submitted.

Additional information included in this package are revisions for Sections 817.101 and 784.15 of Volume VI. Although not specifically requested in the PAP, these revisions were necessitated as a result of telephone conversations with OSM personnel and submittal of the Morrison-Knudsen report.

- 784.15- - - - -Substitute page 784.15-2 into Section
784.15 of Volume VI for the existing
page.
- 817.101- - - - -Substitute page 817.101(b) (4) (iii) into
Section 817.101 of Volume VI for the
existing page.

UMC 761.11 (a) (3) AREAS UNSUITABLE FOR MINING - PROTECTION OF CULTURAL RESOURCES

Substantial subsidence is anticipated within the permit area (The list of subsidence features is presented in the PAP, Plate 3). Because of the potential for such subsidence, a cultural resources inventory of the areas depicted by OSM on the attached copy of ACR Map D5-0063 must be conducted. The areas were selected in accordance with the applicant's recommendation that a survey of the ridge line be made. Approximately 700 acres of the roughly 2900-acre area over the underground workings appear conducive to cultural site location. Of this area, approximately 330 acres (11 percent) of the permit area have been selected by OSM for examination as a representative sample.

This investigation is not a prerequisite to permit approval. Rather, the inventory shall be conducted and an acceptable cultural resource inventory report shall be submitted to the UDOGM, Utah State Historic Preservation Office, OSM and the Manti-La Sal National Forest Service Office prior to December 31, 1984.

The investigation to be conducted within the designated area shall be a 100 percent pedestrian inventory designed to locate, record, and assess, in terms of eligibility for nomination to the National Register of Historic Places (NRHP), all historic and archaeological resources within the survey area. A fully justified recommendation of each resource's eligibility or ineligibility for nomination to the NRHP must be presented in the inventory report. The applicant or consultant is urged to contact the responsible agencies (noted above) to ensure that the survey and report meet all pertinent standards.

If eligibility cannot be assessed on the basis of surface data alone, a brief description of the investigations that would be necessary to determining eligibility must be prepared. It is not necessary for the applicant to conduct such investigations (e.g., controlled test excavation, extended archival research, etc.) as part of the inventory. If/when eligible sites or sites of undetermined significance are threatened with direct impacts as a result of subsidence or other types of disturbance, it may be necessary to provide additional information and/or to design and implement a data recovery program to mitigate any adverse effects to significant sites.

COMMENTS

As per reviewer's directions, the applicant will supply the required cultural resource inventory report by the deadline given.

UMC 782.13 IDENTIFICATION OF INTERESTS

(c) The name and telephone number of the Kanawha and Hocking Coal and Coke Company resident agent still has not been provided.

COMMENTS

The resident agent for Kanawha and Hocking Coal and Coke Company is:

Walter L. Wright
Vice President
Kanawha and Hocking Coal and Coke Company
Scofield Route
Helper, UT 84526
(801) 448-9456

Valley Camp, Inc. has not operated any surface coal mining operation in the United States within the five years preceding the date of this application. Valley Camp, Inc. has operated underground coal mining operations during the stated time period under the same corporate name. A listing of those mines, associated permit numbers and regulatory agency responsible for such permits is found in Appendix B, Volume I.

Kanawha and Hocking Coal and Coke Company is also a subsidiary of the Valley Camp Coal Company, and provides rights necessary for conducting mining operations by Valley Camp of Utah, Inc., through various property agreements. A listing of the officers and directors for Kanawha and Hocking Coal and Coke Company is shown in Figure 1-3-1.

The resident agent for Kanawha and Hocking Coal and Coke Company is:

Walter L. Wright
Vice President
Kanawha and Hocking Coal and Coke Company
Scofield Route
Helper, UT 84526
(801) 448-9456

UMC 782.14 COMPLIANCE INFORMATION

The information required by UMC 782.14(c) remains inadequate.

Deficiencies remaining include:

1. For violations 2 of 3, and 3 of 3, (page 15 of PAP), the N.O.V. number is not listed and abatement procedures are not given.
2. Page 15a does not correlate to any of the pages that proceed it, and refers to an unspecified two-part violation.
3. Page 16 lists a 10 December, 1980 N.O.V. (No. 80-V-15-12), and states that it was vacated on 17 December, 1980, but fails to provide information as to why this N.O.V. was vacated, and whether any abatement activity was involved.
4. Pages 16 J-K discuss violation 2 of 2 for N.O.V. No. 82-1-9-2, but fail to state whether abatement had been achieved (only that the abatement period was extended).

COMMENTS

1. Page No. 14 of Volume I, describes in Section No. 1, a three (3) part violation No. 79-5-3-40. The following sections a, b, and c, on Page Nos. 14 and 15, are part of that violation. Violations 2 of 3, and 3 of 3, (page 15), are part of Notice of Violation No. 79-5-3-40 as stated on page 14.

Abatement procedures for both portions, 2 of 3, and 3 of 3, of this violation are described on page 15, Volume I.

2. The reviewers page 15a is apparently out of place. It certainly is outdated, since this entire section has been revised.

A complete revised section 782.14 is enclosed.

3. Notice of Violation No. 80-V-15-12 (page 16D) was vacated as a result of the Office of Surface Mining discovering that the applicant did indeed have mining, and related construction authorization, as a result of approval of their U.S.G.S. 211 plan. No abatement activity was associated with this N.O.V.
4. The abatement of part 2 of N.O.V. No. 82-1-9-2 had not been accomplished at the time of submittal of the applicant's permit application submittal of February 9, 1981. It has now, however, been achieved.

782.14 COMPLIANCE INFORMATION

Neither Valley Camp, Inc., nor any subsidiary, affiliate or persons controlled by or under common control with Valley Camp, Inc., have had a Federal or State Mining Permit suspended or revoked in the last five years.

Neither Valley Camp, Inc., nor any of the entities or persons referred to in this section have had a mining bond or similar security deposited in lieu of bond forfeited.

Valley Camp, Inc. has not received any violations with respect to surface coal mining operations, but has received the following violations concerning underground coal mining operations:

1. The Office of Surface Mining issued to Valley Camp, Inc., on December 4, 1979, a Notice of Violation, No. 79-5-3-40, of the Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) with respect to three (3) violations. A description of the Violations and information regarding their present status is as follows:
 - (a) Violation 1 of 3
"Material placed on downslope below road cut", in violation of 30 C.F.R. 211.40 (b) and 717.14 (c).

Abatement of this violation was "immediate cessation of such activities" on date of issuance.

Based upon an assigned total of 32 penalty points, a civil penalty of \$1,200.00 was later assessed.

(b) Violation 2 of 3

"Failure to pass surface drainage from the disturbed areas through sedimentation ponds", in violation of 30 C.F.R. 717.17 (a) and 211.40 (b). Abatement action included the installation of 60 feet of 24" C.M.P. and establishment of a surface ditch from the outflow end of the culvert to a sedimentation pond, and was completed on December 8, 1979. Based upon an assigned total of 35 penalty points, a civil penalty of \$1,500.00 was later assessed.

(c) Violation 3 of 3

"Failure to maintain access and haulroads as required." In violation of 30 C.F.R. 717.17 (j) (1) and 211.40 (b). Abatement action consisted of cleaning snow and ice from ditchline for a distance of 20 feet above culvert and from culvert inlet. Abatement action was completed on December 7, 1980.

Based upon an assigned total of 32 points, a civil penalty of \$1,200.00 was later assessed.

Pursuant to 30 C.F.R. 723.17, a request for a conference to review N.O.V. 79-5-3-40 was made on January 28, 1980.

Conference approval was given and later held on April 10, 1980, under the direction of an O.S.M. Conference Officer. The conference resulted in "no change" for Nos. 1 of 3 and 2 of 3. However, the total penalty points for No. 3 of 3 was reduced from 32 to 30, and resulted in the \$1,200.00 civil penalty assessment being withdrawn. A check in the amount of \$2,700.00 was issued to the Assessment Office of the O.S.M. on July 16, 1980. A petition for formal hearing was then filed on July 22, 1980. The hearing was held on December 9, 1980, with an Administrative Law Judge presiding. On May 12, 1981, the Judge's decision was issued as follows:

(a) Violation 1 of 3

"technical violation with respect to issuing the Notice of Violation - no penalty points are assessed to this violation."

(b) Violation 2 of 3

"facts do not support the issuance of the Violation notice and it is, therefore, vacated."

(c) Violation 3 of 3

"Common sense interpretation of the regulations dictates an allowance of a reasonable amount of time for the operator to correct drainage problems under extraordinary weather conditions that cannot be anticipated. The third violation is, therefore, vacated."

The Judge further decreed that the Office of Surface Mining reimburse the operator within 30 days the sum of \$2,700.00 with appropriate interest.

2. On January 8, 1980, the Office of Surface Mining issued to Valley Camp., Inc., a Notice of Violation, No. 80-5-18-7, of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description of the violation and information regarding present status follows:

(a) Violation 1 of 1

"Failure to maintain culvert which drains access road", in violation of 30 C.F.R. 717.17 (j) (3) (ii). Abatement action consisted of cleaning snow from the culvert inlet, and was completed January 9, 1980.

Based upon an assigned total of 17 penalty points, no civil penalty was assessed.

A petition for formal hearing was filed on April 28, 1980, followed by the filing of an amended petition of June 12, 1979.

The hearing on this N.O.V. was held concurrently with that of N.O.V. 79-5-3-40 on December 9, 1980.

The decision entered on May 12, 1981, on this matter is as follows:

(a) Violation 1 of 1

"technical violation with respect to issuing the violation.....is, therefore, vacated.

3. On June 23, 1980, the Office of Surface Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-5-7-15, of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description of the violation and information regarding present status follows:

(a) Violation 1 of 1

"Failure to salvage topsoil", in violation of 30 C.F.R. 717.20 (a).

Abatement action consisting of reclaiming drill road and covering it with topsoil was completed on July 22, 1980.

This violation has been terminated.

As a result of telephone and letter conference with the conference officer, a revised assessment of 29 penalty points has been assigned.

However, no civil penalty was assessed.

4. On August 7, 1980, the Division of Oil, Gas and Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-1-3-2, of the SMCRA of 1977 (P.L. 97-85) with respect to two (2) violations. A description of the violations and present status information follows:

(a) Violation 1 of 2

"Failure to pass surface drainage from the disturbed area through a sediment pond", in violation of 30 C.F.R. 717.17 (a).

Abatement action consisted of diverting drainage from approach road into sediment pond via

surface ditch, removal of a power pole from within the pond limitations and re-shaping the interior slopes of the south and east banks. Abatement was completed on December 19, 1980.

A proposed point total and civil penalty assessment was levied on October 16, 1980, of 32 and \$1,200.00, respectively. On November 24, 1980, an amended assessment was issued proposing 11 points and the civil assessment being dependent upon the total penalty points of both violations.

(b) Violation 2 of 2

"Failure to maintain ditches and culverts, in violation of 30 C.F.R. 717.17 (j) (3) (ii).

Abatement action consisted of cleaning a surface ditch and a culvert inlet and was completed on August 11, 1980.

A proposed point total of 28 and a civil penalty of \$800.00 were levied on October 16, 1980. On November 24, 1980, an amended assessment was issued proposing 11 points, with a total civil penalty being determined by the total penalty points of both violations. A conference was held on December 5, 1980, at the Offices of the Division. The conference resulted in "no change" for Violation 1 of 2, and a reduced point total from 11 to 9 for Violation 2 of 2. The end result was a reduction in the total penalty

points from 22 to 20 and a reduction in the civil penalty assessment from \$240.00 to \$200.00. This assessment has been paid.

5. On December 10, 1980, the Office of Surface Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-V-15-12 of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description and status follow:

- (a) Violation 1 of 1

- "Operating without an approved permit", in violation of P.L. 95-87, Section 502 (a) and 211.10 (c). This Notice of Violation was vacated on December 17, 1980.

6. On June 1, 1981, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 81-2-5-2 of the SMCRA of 1977 (P.L. 95-87) with respect to two (2) violations. A description and status follow:

- (a) Violation 1 of 2

- "Failure to post topsoil markers on topsoil or other vegetation supporting material", in violation of U.M.C. 817.11 (g).

- Abatement action consisted of placing a "Topsoil Storage - Do Not Disturb" sign at site. Abatement was completed within the allotted time period, and violation terminated on July 9, 1981.

A proposed point total and civil penalty assessment was levied on June 30, 1981, of 24 points and \$280.00.

A conference was held on September 1, 1981, at the offices of the Division. As a result of the conference, the validity of the violation was upheld and a final point total of 24 assessed. However, the civil penalty of \$280.00 was withdrawn and re-assessed as \$0.00.

(b) Violation 2 of 2

"Failure to protect topsoil from wind and water erosion, unnecessary compaction or contamination which lessens the capability of the material to support vegetation when redistributed", in violation of U.M.C. 817.23 (b). Abatement action consisted of consolidating remaining topsoil, digging a surface ditch around area to prevent water erosion and placing a dirt barrier across access road to prevent vehicle access. Abatement was completed within the allotted time period and violation terminated on July 9, 1981.

A proposed point total of 24 and a civil penalty assessment of \$280.00 was levied on June 30, 1981. A conference was held on September 1, 1981, at the offices of the Division. As a result of the conference, the civil penalty of \$280.00 was withdrawn and re-assessed to \$0.00 with the

validity of the violation and penalty point assessment of 24 being upheld.

7. On July 9, 1981, the Division of Oil, Gas and Mining issued to Valley Camp, Inc., a Notice of Violation, No. N81-3-11-2 of the SMCRA of 1977 (P.L. 95-87) with respect to two (2) violations. A description and status follow:

(a) Violation 1 of 2

"Failure to comply with terms and conditions of interim permit", in violation of U.M.C. 771.19. Abatement action consisted of repairing small leak in emergency outflow pipe at mine water discharge filter pond and was completed on August 7, 1981. A proposed point total and civil assessment was levied on August 19, 1981, of 52 and \$1,080.00, respectively. A conference was held on November 3, 1981, at the offices of the Division and resulted in the point total and civil penalty being reduced to 30 and \$400.00, respectively. This assessment has been paid.

(b) Violation 2 of 2

"Failure to post perimeter markers", in violation of U.M.C. 817.11 (d).

Abatement action consisted of placing perimeter markers around disturbed area at Belina Mine, and was completed on July 20, 1981.

A proposed point total of 14 and civil penalty assessment of \$140.00 was levied on August 19, 1981.

A conference was held on November 3, 1981, at the offices of the Division, and, as a result, the point total and civil assessment was reduced to 10 points and \$100.00, respectively. This assessment has been paid.

8. On August 5, 1981, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 81-2-10-1 of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status follow:

- (a) Violation 1 of 1

"Failure to comply with terms and conditions of permit-failure to minimize erosion to the extent possible," in violation of U.M.C. 771.19 and U.M.C. 817.45.

Abatement action consisted of preparing inlet and outlet structures for a drainage culvert and was completed on August 21, 1981.

A proposed assessment of 41 points and \$640.00 was levied on August 19, 1981.

A conference was held on November 3, 1981, at the offices of the Division. Final assessment for the violation, as a result of the conference, was 17 points and \$170.00. This assessment has been paid.

9. On December 17, 1981, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation,

No. 81-2-17-1 of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description and status follow:

(a) Violation 1 of 1

"Operating without a permit, failure to conduct mine operations in accordance with an approved mine plan, unauthorized disposal of underground development waste outside the permit area", in violation of U.C.A. 1953 40-10-9 (1) U.M.C. 771.19, U.M.C. 817.71 (a).

Abatement action consisted of immediate cessation of waste removal from permit area, and was so done in the presence of the Division inspectors. A proposed total of 23 points and civil assessment of \$260.00 was levied on January 5, 1982.

A conference was held on February 2, 1982, at the offices of the Division. As a result of the conference, the final assessment for points and civil assessment was reduced to 0 points and no fine. This N.O.V. was vacated by the Division on May 3, 1982.

10. On July 21, 1982, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 82-1-9-2 of the SMCRA of 1977 (P.L. 95-87), with respect to two (2) violations. A description and status follow:

(a) Violation 1 of 2

"Failure to operate in accordance with approved plan, failure to maintain sediment" in violation of U.M.C. 817.46 (e), U.M.C. 771.19 and U.M.C. 817.45. The violation applying to the Load-out area of the operation.

The requested remedial action consisted of "cleaning sediment pond, including the removal of coal and establishing approved volume of pond." The allotted time for accomplishing abatement activity was thirty (30) days, no later than August 20, 1982.

On August 20, 1982, a request for extension of the abatement period was approved by the Division to September 20, 1982. The proposed point total of 32 points and civil assessment of \$440.00 were levied on August 31, 1982. An assessment conference for this part of the N.O.V. was made on September 24, 1982. On September 27, 1982, an additional extension of abatement period request was approved to October 19, 1982. On September 28, 1982, a check in the amount of \$440.00 was issued to the Division. This part of the N.O.V. No. 82-1-9-2 was terminated on October 20, 1982. An assessment conference was held at the offices of the Division on

November 15, 1982. The conference resulted in "no change" in either the point total or assessment amount. No further contest of this N.O.V. has occurred.

(b) Violation 2 of 2

"Failure to meet effluent limitations" in violation of U.M.C. 817.41 (c). The violation applying to the Load-out surface water monitoring points, and the Belina Complex mine water discharge.

Remedial action was to "meet effluent limitations" and "reconstruct filter pond" at the Utah No. 2 and Belina sites, respectively. Abatement of this violation was set for sixty (60) days, no later than September 19, 1982.

On August 31, 1982, a proposed assessment of 46 points and \$840.00 was issued. A request for an assessment conference was made on September 24, 1982, and a check in the amount of \$840.00 was issued to the Division on September 28, 1982. A request for extension of the abatement period was approved on September 27, 1982, and extended to November 7, 1982. An assessment conference was held on November 15, 1982, at the offices of the Division, and resulted in the point total being reduced to a "0", and the civil penalty of \$840.00 being reduced to \$0.00.

The abatement period was also extended to July 1, 1983.

On January 13, 1983, a refund in the amount of \$840.00 was received from the Division. A request for interest on this amount, for the period of retention by the Division, has been made.

11. On October 1, 1982, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 82-4-11-1 of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status report follow:

(a) Violation 1 of 1

"Failure to maintain sedimentation ponds to prevent short circuiting and ensure that water discharged from the disturbed area complies with all State and Federal water quality limitations. Failure to meet applicable State and Federal effluent limitations", Provisions of the Regulations violated being: U.C.A. 40-10-18 (2)(i)(ii), U.M.C. 817.41 (c), U.M.C. 817.42 (a) (7), U.M.C. 817.42 (c) and 817.46 (e). The violation applying to the Utah No. 2 Load-out area.

Remedial action required consisted of "repairing sediment ponds so as to ensure that they function as designed, and so that discharge from the sediment ponds will comply with all applicable ef-

fluent limitations." The abatement deadline was set at October 8, 1982; however, abatement activity occurred on October 1, 1982. This violation was terminated on October 4, 1982, by the Division. A proposed assessment of 28 points and \$360.00 was issued on October 28, 1982. A check in the amount of \$360.00 was issued to the Division on November 12, 1982.

An assessment conference was held at the offices of the Division on December 21, 1982. Final assessment for this violation, as a result of the conference, was 10 points and \$180.00. A refund in the amount of \$180.00 was received from the Division on January 13, 1983.

A request for allowable interest on the full amount of the assessment, for the period of retention, has been made.

UMC 782.15 RIGHT OF ENTRY AND OPERATION INFORMATION

The applicant has stated on page 782.13(c)-1 of its September 16, 1983 response, that it and Kanawha and Hocking Coal and Coke Company, are separate subsidiaries of Valley Camp Coal Company. However, on pages 782.15-2 and 784.15-2 of the September 16, 1983 response, statements are made that coal (782.15-2) and surface (784.15-2) are owned by the applicant, although its sister company is shown as the owner on ownership maps. Valley Camp must clarify.

COMMENTS

Valley Camp of Utah, Inc., owns neither coal nor surface property within or contiguous to the permit area. The word "own" on page 782.15-2 was simply a poor choice. The applicant may control certain properties through lease and agreement privileges, but does not "own" any property. A revised page 782.15-2 is enclosed. The statement referenced to page 784.15-2 cannot be found but the above explanation will apply to whatever page was intended.

The land, located within the applicant's mine plan boundaries, owned by Mr. Milton Oman in the NW1/4 NW 1/4, Section 31, T13S, R7E, is not going to be affected by surface operations associated with underground mining in the area and, therefore, does not meet the requirements of Section UMC 782.15.

The description on Page 22, Section 782.15, Volume I, of the forty (40) acre Oman tract is in error. The tract lies only in Sections 19 and 30, T13S, R7E. This particular piece may be seen on Map A, Surface Ownership.

The description of the Marakis Lease (Page 22, Section 782.15, Volume I) has two (2) errors on it. The portion in Section 16 should read W1/2 less 0.18 acres for channel change easement and also W1/2 E1/2. Revised page 22 is included.

In the easements and agreements shown on Page 23 of Volume I (UMC 782.15), the lessor is Kanawha and Hocking Coal and Coke Company and the lessee is Valley Camp of Utah, Inc. in all cases, as shown.

The surface property owned by L. and A. Kosec will not be affected in any manner by mining operations conducted by the applicant. Coal rights beneath this surface panel are controlled by the applicant and mining is not planned in this particular tract.

UMC 782.17(b) PERMIT TERM INFORMATION

To find the applicant in compliance with this rule, a schedule for five years of mining is required (Valley Camp has applied for a 5-year permit). The schedule currently provided in the application is for only two years of mining (through 1985). Valley Camp must revise the schedule accordingly.

COMMENTS

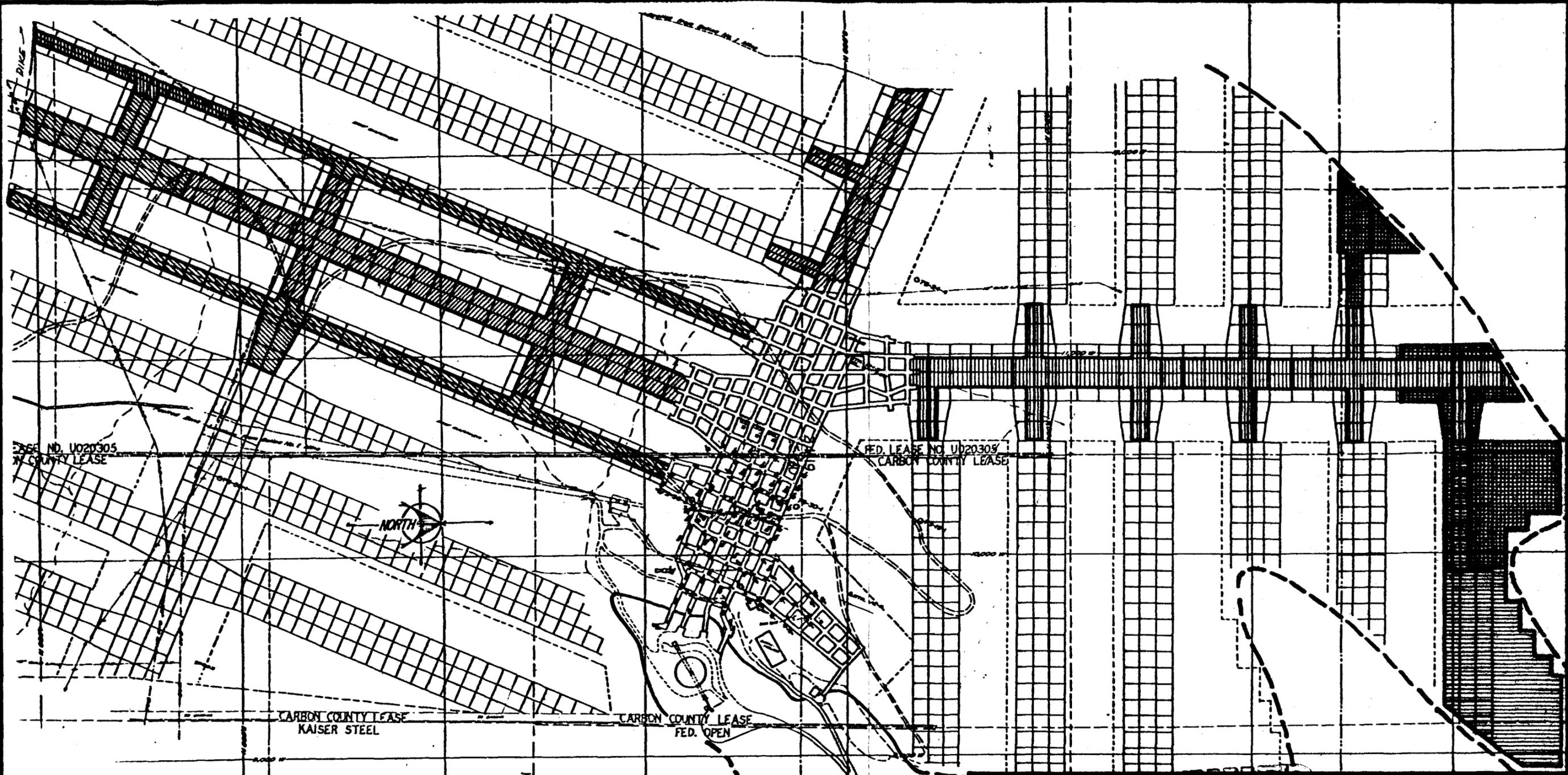
The schedule of mining has been revised and now provides for production and development through 1988.

The 5-year projections for both mines No. 1 and 2 have been revised and are now shown on revised Map Nos. B-2 and B-3, respectively. The revised maps are now on a scale of 1"=500' rather than the originally submitted 1"=200'. These maps replace those originally submitted in Volume IV, in envelope numbers 5 and 6.

The revised forecast did not extend the original 5-year permit boundary as previously shown on many maps.

Pages 782.17-1 and 782.17-2 of Volume VI have also been revised and are included as replacements for corresponding pages submitted on September 16, 1983, (Volume VI).

Page 6 of Volume III also required revision as a result of this most recent OSM concern and it, too, is submitted for replacement of the same page dated March 2, 1982.



LEGEND:

-  1984
-  1985
-  1986
-  1987
-  1988



DRAWN BY:	Ed Sanderson
DATE:	Nov. 10, 1983
CHECKED BY:	
DATE:	
APPROVAL:	
APPROVAL:	
APPROVAL:	

W RECEIVED
VALLEY CAMP OF UTAH, INC.
 NOV 21 1983
SCOFIELD ROUTE
DIVIDER, UTAH 84528
 OIL, GAS & MINING

TITLE: **BELINA NO. 2 MINE**
5-YEAR PROJECTION

MAP **B-3**

SCALE: 1" = 500' DRAWING NO. B2-0012 Rev. 1

UMC 782.17 PERMIT TERM INFORMATION

The applicant states that two seams will be mined and refers the reader to Volume III, page 2. The page lists three seams to be mined. A date is given for areas to be mined, but whether it is the beginning or end date is not noted. The applicant states that 120 acres will be disturbed at the end of the permit term and 150 acres at the end of the mine life. The additional 30 acres are not accounted for. The applicant should provide both beginning and end dates for each phase of the mining operation. The discrepancies in seams to be mined and acreage to be disturbed must be resolved.

COMMENTS

The applicant presently has developed operations in two (2) seams. The Belina No. 1 is in the Upper O'Connor Seam and the Belina No. 2 is located in the Lower O'Connor Seam. The McKinnon Seam (mentioned on Page 2, Volume III) will not be mined until such time as additional coal leases, if acquired, provide a large enough area to make development in this seam economically feasible. The statement concerning the possible future mining in the McKinnon Seam was simply a commitment to mining that seam when and if circumstances warranted. Additionally, the applicant was acknowledging the existence of that seam and not indicating any planned mining activity.

The schedule for underground development as shown on Page 26a and 26b of Volume I, has been revised as follows to indicate each section's ending date. Please also refer to Coal Map Numbers B-2 and B-3, Volume IV, for additional clarification.

Belina #1

<u>Miner Section</u>	<u>Start Date</u>	<u>End Date</u>	<u>Location (Section, Township, Range)</u>
1	-	08/31/84	SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 30, T13S, R7E
	09/01/84	01/31/85	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	02/01/85	10/31/85	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	11/01/85	12/31/85	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	01/01/86	05/31/85	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	06/01/86	12/31/87	NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	01/01/88	03/31/88	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	04/01/88	12/31/88	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
2	-	04/30/84	NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 30, T13S, R7E
	05/01/84	06/30/84	NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 30, T13S, R7E
	07/01/84	02/28/85	NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 30, T13S, R7E
	03/01/85	06/30/85	NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 30, T13S, R7E
	07/01/85	07/31/85	NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 25, T13S, R6E
	08/01/85	09/30/86	NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E
	10/01/86	02/28/87	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 25, T13S, R6E
	03/01/86	12/31/88	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 25, T13S, R6E

<u>Miner Section</u>	<u>Start Date</u>	<u>End Date</u>	<u>Location (Section, Township, Range)</u>
3	-	01/15/84	SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 36, T13S, R6E
	01/16/84	02/20/84	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T13S, R6E
	02/21/84	05/31/84	E $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 36, T13S, R6E
	06/01/84	01/31/85	S $\frac{1}{2}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E
	02/01/85	04/30/85	W $\frac{1}{2}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E
	05/01/85	05/31/85	SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E
	06/01/85	08/31/85	NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 36, T13S, R6E
	09/01/85	09/01/86	E $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 35, T13S, R6E
	09/01/86	02/28/88	NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 36, T13S, R6E
	03/01/88	07/31/88	SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E
	08/01/88	11/30/88	SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E
	12/01/88	-	SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 25, T13S, R6E

For details, see Volume IV, Map B-2 - Belina #1.

Belina #2

<u>Miner Section</u>	<u>Start Date</u>	<u>End Date</u>	<u>Location (Section, Township, Range)</u>
1	01/01/84	04/15/84	S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 24, T13S, R6E
	04/16/84	10/31/84	E $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 25, T13S, R6E
	11/01/84	03/31/85	N $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 25, T13S, R6E
	04/01/85	06/30/85	E $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 25, T13S, R6E
	07/01/85	08/31/85	N $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 25, T13S, R6E
	09/01/85	11/30/85	E $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 25, T13S, R6E
	12/01/85	02/15/86	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 25, T13S, R6E
	02/16/86	09/30/86	E $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 24, T13S, R6E
	10/01/86	12/31/86	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 24, T13S, R6E
	01/01/87	06/30/88	S $\frac{1}{2}$ SW $\frac{1}{4}$ Sec. 19, T13S, R7E
	07/01/88	07/31/88	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 24, T13S, R6E
	08/01/88	09/30/88	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 24, T13S, R6E
	10/01/88	12/31/88	SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 24, T13S, R6E

For details, see Volume IV, Map B-3 - Belina #2.

Figure 3-1
 Projected Tonnage by Year Per Seam for
 the Belina Mines
 During the Mine Permit Term

Belina No. 1 Mine (Upper O'Connor)	Belina No. 2 Mine (Lower O'Connor)
1984 - - - 729,000 TONS	1984 - - - 243,000 TONS
1985 - - - 729,000 TONS	1985 - - - 243,000 TONS
1986 - - - 729,000 TONS	1986 - - - 243,000 TONS
1987 - - - 729,000 TONS	1987 - - - 243,000 TONS
1988 - - - 729,000 TONS	1988 - - - 243,000 TONS

Anticipated Tonnage by 5 Year Increments
 Per Seam for the Belina Mines
 for Life of Each Mine

Belina No. 1 Mine (Upper O'Connor)	Belina No. 2 Mine (Lower O'Connor)
1988-1993 - - - 6,000,000 TONS	1988-1993 - - - 3,625,000 TONS
1993-1998 - - - 6,000,000 TONS	1993-1998 - - - 3,625,000 TONS
1998-2003 - - - 6,000,000 TONS	1998-2003 - - - 3,625,000 TONS
2003-2008 - - - 6,000,000 TONS	2003-2008 - - - 3,625,000 TONS
2008-2013 - - - 6,000,000 TONS	2008-2013 - - - 3,625,000 TONS

UMC 782.19 IDENTIFICATION OF OTHER LICENSE AND PERMITS

Deficiencies remaining include: FCC license #2744-15886 (date), MSHA I. D. Numbers (dates), Utah Department of Health permits (permit numbers), State Engineer (Approval dates and I. D. numbers for Water Rights Exchange), Carbon County (building permit dates), Carbon County Business License (License number). Valley Camp must submit this information.

COMMENTS

The Federal Communication Commission license No. 23744-IS-86 (corrected number) was issued September 17, 1976.

MSHA I. D. Numbers were issued for the Utah No. 2 mine on March 29, 1974, and the Belina Nos. 1 and 2 mines on February 12, 1976.

The Utah State Department of Health issues letter approvals only.

The approval dates for Water Rights Exchange numbers 1691 and 77-17, (corrected numbers) are March 5, 1981, and March 16, 1977, respectively.

Carbon County building permits were issued on October 17, 1979, and October 15, 1979, for permit numbers 1431 and 1428 respectively.

The existing Carbon County Business License number is 0910.

Pages 4C and 4I have been revised to reflect the above information and are submitted for replacement of corresponding page numbers in Volume V.

Figure ACR 5
Figure 1-7: Continued
(Revised)

Permit Name and Address	License #, Approval, or Submittal Date	Requirements, Contents, and Remarks
<u>U.S. FEDERAL COMMUNICATION COMMISSION</u> Washington, D.C.		
License in the Private Operational Fixed Micro-wave Radio Service	License #23744-IS-86	Issued 9-17-76
<u>MINE SAFETY AND HEALTH ADMINISTRATION</u> U. S. Dept. of Labor P. O. Box 25367 Denver Federal Center Denver, CO 80225		
ID No. and Safety Plans Operator & Contractors	Belina #1 - #42-01279 Coal Handling Facilities #42-01126 Belina #2 - #42-01280	Issued 2-12-76 Issued 3-29-74 Issued 2-12-76
Roof Control Plan - Mine	August, 1980 Approved	Reviewed every 6 months. Commencing mine development after establishing mine ventilation
Ventilation System-Methane and Dust Control Plan-Mine	July 28, 1980 Approved	Reviewed every 6 months. Commencing mine development after establishing mine ventilation
Escapeway Map	July 28, 1980 Approved Updated Monthly	Underground Mine. Commencing underground mining.
Fan Installation Plan	July 28, 1980	Commencing mine development after construction

Figure ACR 5
Figure 1-7: Continued
(Revised)

Permit Name and Address	License #, Approval, or Submittal Date	Requirements, Contents, and Remarks
<u>CARBON COUNTY</u>		
Carbon County Courthouse Price, UT 84501		
Right-of-way & Construction Use	Not required at this time.	Pipelines, railroads, power lines. Before right-of-way construction.
Building Permit	Coal Handling - #1431 10-17-79 Bath House - #1428 10-15-79	Issued by building inspector
Sewage Disposal System	State Permit includes county input. Nothing more required at this time.	Input by County Sanitation as part of state approval.
Burning Permit	Not required at this time.	Obtain from Sheriff Dept. Prior to burning brush. Req. to burn excess debris. Will obtain if necessary.
County Road Overload Approval	None required at this time.	Req. for transporting excessive loads on county roads. Obtained prior to need.
Business License	January 1, 1983 No. 0910	Annual renewal from Carbon County.
<u>State Engineer</u>		
Belina Portal Water Well	Water Rights Exchange Application #1691	Application approved 3-5-81
Utah #1 Waterwell	Water Rights Exchange Application #77-17	Application approved 3-16-77
Alpine School District 50 North Center American Fork, UT 84003	25 March 1976 - Lease for purchase of culinary water	

UMC 783.19 VEGETATION INFORMATION

The applicant's September 16, 1983, response to this section addressed the August 9, 1983, draft version of the Determination of Adequacy (DOA) letter and not the August 24, 1983, final version that was transmitted to the applicant on August 26, 1983. The August 24, 1983, DOA includes the following clarifications to the earlier draft:

- (1) Statistical summary of the reference area and validation data combined (i.e.: means, standard deviation, and sample size for each vegetation type samples for both the reference area and validation area) for cover, production, and woody plant density samples that did not achieve sample adequacy.
- (2) Sample adequacy tests for each vegetation type using the combined reference area and validation area data for cover, production and woody plant density, samples that did not achieve sample adequacy.

For OSM to complete the technical analysis of compliance with this rule, Valley Camp must provide the information listed in 1 and 2 above.

Note: The applicant should understand that the combined reference area and validation data is generated by adding means and sample size of the same community and calculating new standard deviations. The applicant must not add the standard deviations and calculate an average standard deviation.

COMMENTS

- (1) The statistical summary for cover measurements was submitted in the September 1983 submittal. The statistical summaries for Productivity and Tree Density measurements are attached as page 783.19-3. This page should be inserted into section UMC 783.19 of Volume VI.
- (2) The information required for compilation of standard deviations and sample adequacy of the tree density measurements is unavailable at this time. This information was obtained at the time the vegetative cover surveys were conducted, but cannot at this time be located in the field notes. If this information cannot be located, field surveys will again be done to obtain it at the earliest possible date.

Statistical Summary for Productivity Measurements

Vegetative Type	Sample Size	Sample Mean	Standard Deviation	90% N (min)	80% N (min)
Lower Canyon Aspen Reference	10	3.89	2.45	107	65
Conveyor Sagebrush Validation	10	9.31	8.05	202	123
Reference	10	13.75	9.29	123	75
Combinea	20	11.53	8.76	156	94
Whiskey Canyon Conveyor Aspen Reference	10	5.95	4.59	262	159
Portal Yard Aspen Reference	10	7.38	3.92	76	46

Statistical Summary of Tree Density Measurements

Vegetative Type	Sample Mean	Density per Acre
Lower Conveyor Spruce-fir Validation	11.6 ft.	324
Reference	11.8	313
Lower Conveyor Aspen Validation	8.3	633
Reference	9.4	496
Whiskey Canyon Conveyor Aspen Validation	16.9	152
Reference	11.04	357
Whiskey Canyon Spruce-fir Validation	10.0	434
Reference	9.9	444
Portal Yard Spruce-fir Reference	12.3	288
Portal Yard Aspen Reference	26.3	63

UMC 783.22 LAND USE INFORMATION

The applicant still has not provided documentation regarding wildlife habitat lost at the loadout facility area (only the Belina No. 1, and No. 2 portal areas are discussed in the September 16, 1983 response).

COMMENTS

The total area of disturbance affecting wildlife habitat at the loadout facility area, is sixteen (16) acres. Of this amount, approximately 4.5 acres are presently well established through interim reclamation. Refer also to Appendix A, Volume III, for additional information.

UMC 784.11 OPERATIONAL PLAN: GENERAL REQUIREMENTS

The requirements of this section remain inadequate with regards to the Utah No. 2 mine. Valley Camp, however, has indicated that they are not currently seeking authority to operate the Utah No. 2 mine. Operational plan requirements must be submitted for the Utah No. 2 mine, and approved as a permit revision, before Valley Camp can mine coal from the Utah No. 2 mine.

COMMENTS

There are no plans for re-opening the Utah No. 2 mine for purposes of access to the new federal coal leases, within this 5 year permit request. At such time as the applicant requires either re-opening the Utah No. 2 portals or development of new portals, which would allow access to these additional properties, the applicant will request authority to do so from the Division.

UMC 784.13 RECLAMATION PLAN: GENERAL REQUIREMENTS

784.13(b)(3) (Backfilling and Regrading Plan) - The Utah No. 2 surface facilities are currently used for processing and transporting coal removed from Belina No. 1; therefore, the applicant must provide backfilling and grading plans for the Utah No. 2 area as required by UMC 817.101. Also pursuant to UMC 817.133(c)(2), Valley Camp has not provided backfilling and grading plans for the proposed conveyor route. Valley Camp, however, has indicated that they do not wish to permit the proposed overland conveyor at this time. Therefore, the proposed conveyor has not been reviewed for compliance with this rule.

COMMENTS

Backfilling and grading plans for the Utah No. 2 area are shown on Map Nos. D-3 (D3-9945 Rev. 1), and D-4 and D-5 combined (D3-0047 Rev. 1), found in Volume IV. In addition, final reclaimed contours are also shown on Vegetation Map No. D3-0076 of Volume V.

UMC 784.13(b) (4) TOPSOIL

Valley Camp indicated in their September 16, 1983, submittal that the analysis of site material proposed for topsoil substitute would be submitted by October 17, 1983. In addition to this deficiency, the applicant still has not provided estimates of the amount of topsoil available for reclamation purposes, nor have they indicated exactly where within the permit area such sites are located. The applicant must provide such volume estimates and indicate on a map exactly where such re-topsoiling material is located.

COMMENTS

The estimated quantities and exact source locations of the substitute topsoil were addressed in the October 17, 1983 submittal.

Included as part of this submittal and numbered page 784.13 (b) (4)-2, is a determination of suitability, as a topsoil substitute, for the sample materials found in Appendix P of Volume VI.

This document is to be inserted into UMC 784.13, Volume VI.

UMC 784.13(b)(4) TOPSOIL SUBSTITUTE SUITABILITY

Reclamation personnel from Morrison-Knudsen Company, Inc., have reviewed the analyses of the proposed topsoil substitute materials and found no indication that the materials are unsuitable for use as a topsoil substitute. The physical and chemical properties of the material are generally acceptable when compared to the topsoil salvaged at surface mines in the western USA.

Selected samples show high clay content, but those zones are within four (4) feet, vertically, of zones containing coarser textured material, which can be mixed with the high clay zones during the handling of the material.

A low pH (5.5) value occurs in one of the samples. This should not present a problem as the same sample shows a positive acid-base potential of 10.3 tons calcium carbonate per 1000 tons of soil. The low pH may have resulted from the high iron content of the soil causing an iron oxide coating on the undisturbed calcium carbonate nodules. This would temporarily reduce their rate of reaction, allowing a low pH in the presence of excess carbonate.

Toxic constituents, as boron, selenium, and molybdenum are not present at critical levels. Boron levels are less than 0.5 ppm. Molybdenum and selenium are below 0.2 ppm. Conductivity (under 1.0 mmho) and SAR (under 1.0) are also relatively low.

All acid-base potentials are positive. Soil acidity should not be a problem. Plant nutrients are present at moderate levels. The soil materials will be tested after final placement and fertilizer applied if it is determined to be necessary.

UMC 784.13(b) (5) REVEGETATION

The applicant has still not adequately responded to the issue of using introduced grass species. The application indicates that Valley Camp's proposed temporary seed mixture, which contains the introduced grasses, would become part of the permanent seed mixture. Therefore, Valley Camp must either provide documentation that the introduced species comply with UMC 817.112, or withdraw these species from the temporary seed mixture and replace them with native species.

COMMENTS

The introduced grass species were selected on a number of parameters, all of which fall under the intent of UMC 817.112.

- (1) They are proven species with the USFS and BLM, commonly used throughout this portion of Utah and, although not native in climax community, are certainly endemic to those areas where reclamation activities have historically occurred.
- (2) Valley Camp is concerned with over 100 species of wildlife within the permit area. Two species of big game which Valley Camp has directed its reclamation efforts toward, with the intent of enhancement are, Mule deer and Elk. The introduced grass species, while only lightly utilized by deer, are of extreme importance to the elk herd. They provide a diverse and high nutritional base during critical periods in the elk's life span, spring and winter. The two species in question emerge earlier in the spring, providing a nutrition base prior to calving, and grow higher and produce a substantial seed head, which is more accessible during late fall and early winter when snow inundates many of the native species.
- (3) Both species have proven themselves in providing a rapid and substantial ground cover which reduces soil loss and detrimental impacts to key watersheds, thus, minimizing impacts to a variety of aquatic species.

The revegetation costs, for the purposes of calculating the reclamation bond, were, however, calculated with the anticipation that all disturbed areas would be regraded, and revegetated with the approved final seed mixture. Thus, no adjustment to the existing reclamation costs of Appendix B, Volume III, is required regardless of seed mixture.

UMC 784.14 RECLAMATION PLAN: PROTECTION OF THE HYDROLOGIC BALANCE

The final DOA requested that Valley Camp provide well completion information for the 13 wells used to construct the ground water level map (Plate 6 in the application). Valley Camp provided three logs and mentioned that the additional well completion information could be found in the Skyline mine permit application. However, the Skyline application does not provide well completion information for each well; rather, a general narrative is provided that discusses the completion techniques. According to the narrative in the Skyline plan, there was no attempt to pack off and isolate any monitoring zones, but rather it was hoped that sloughing and expansion of strata after drilling would seal around the well casing, thus leaving only the well screen open to the desired monitoring zone. This is an unacceptable completion technique that would not effectively isolate the desired monitoring zone. In order to proceed with the TA, Valley Camp must confirm whether this completion technique was used or whether other efforts were made to pack off monitoring zones.

COMMENTS

The completion technique for the Skyline wells was as reported in the narrative of the Skyline plan. Only data from the shallow Skyline wells were used to estimate the position and gradient of the water table. Thus it was not necessary nor advisable to seal around the well casing to obtain reliable data for ground water determination.

UMC 783.15/784.14 GROUND WATER INFORMATION

Valley Camp's September 16, 1983, response indicates that with this application, they are not proposing to remove coal from their Utah No. 2 operation. However, to complete the TA and the cumulative hydrologic impact assessment (CHIA) for Valley Camp's application, the applicant must indicate whether ground water is discharging from the Utah No. 2 workings, and if so, what controls are being used to control sediment.

Questions 1, 2, and 3 in the final DOA dealt with various aspects of the water yielding strata that are in hydraulic connection with the Belina Mine. One of these issues is: Are there locations along the O'Connor Fault where really extensive saturated sandstones may be offset and adjacent to the Upper or Lower O'Connor coal seams, thereby allowing significant amounts of water to move from fractured sandstones along the fault into the mine? This and several other hydrology issues were discussed at an August 31 meeting in Salt Lake City. Present at the meeting were representatives of OSM, Valley Camp of Utah, UDOGM, Engineering-Science, and Vaughn-Hansen Associates. This question should be responded to using the cross-sections discussed below.

It was agreed at the August 31, 1983, meeting that emphasis would be placed on illustrating the importance of the dike and the fault zones to ground water flow in the area. With regard to the O'Connor Fault zone, the question was raised whether a fractured sandstone that could produce high rates of flow for a long time had been offset to a location adjacent to the Upper or Lower O'Connor coal seams. The cross-sections must illustrate these concerns.

Valley Camp should also discuss with Scott Grace of OSM ((303) 837-3806) the local stratigraphy of the area in order to confirm the nature and thickness of the inter-tonguing between the Star Point Sandstone and Mancos Shale. This is necessary to fully understand the ground water system.

Question No. 7 of the final DOA concerns the importance of the andesite dike to ground water flow. At the August 31, 1983, meeting, it was revealed that the intrusive dike was encountered: (1) in the Belina Mine; (2) in a drill hole on the Skyline property; (3) along the road up Boardinghouse Creek; and (4) in Pleasant Valley near the town of Clear Creek. Valley Camp must locate the extent of the dike using the previously mentioned control points with information on the width of the dike wherever it can be observed. Also, any observation of whether the dike has been fractured along fault zones must be documented.

Question No. 4 in the final DOA asked for an evaluation of changes to ground water quality as a result of mining. Valley Camp responded by discussing water quality changes that would occur during mining. To commence with the TA, we need to know what are the expected effects of changes to post-mining ground water quality. The answer to this question may be based on whether discharge is expected at the mine portals after mining has ceased and

by discussing the discharges in terms of the quality observed at other abandoned mines in the area.

Question No. 5 in the final DOA requested drill logs of holes that extended down to the Aberdeen or Star Point Sandstone. At the August 31, 1983, meeting it was agreed that a north-south and east-west cross-section would be provided to meet this request and Valley Camp has indicated that these cross-sections will be provided by October 17, 1983.

COMMENTS

As previously mentioned, there is no discharge from the Utah No. 2 mine.

Valley Camp prepared the cross-sections that were used in the hydrologic response. Additional cross-section detail was requested and was used in preparing the hydrologic response to the OSM questions raised. It is our understanding that available drill hole logs did not define the exact position of the O'Connor fault and did not identify the step faults that were encountered in mining. Valley Camp test holes do not extend off their property to the west of the O'Connor fault. Certainly, as was discussed in the hydrologic response, the step faulting, as well as the O'Connor fault, have produced a fractured sandstone which could and does produce higher than normal rates of flow. The flows from this fractured zone have been estimated and reported to OSM.

Mining has gone beyond the dike and sufficient time has elapsed to determine the relative influence of this structure on water entering the mine. The report discussed the possible influence of the dike on springs and a plan was formulated for monitoring the springs to assess any impact from mining.

The applicant has only drill hole information and surface observations within the permit which relate to local stratigraphy. Certain feasibility reports have been prepared wherein the local stratigraphy has been discussed, but the most reliable information presently available would be U.S.G.S. open file report No. 81-724. This report entitled "Newly Identified Intertonguing Between the Starpoint Sandstone and the Blackhawk Formation and the Correlation of Coal Beds in the Northern Part of the Wasatch Plateau, Carbon County, Utah", was prepared by Lou Blanchard of the U.S.G.S.

Another good source of review would be AAPG Bulletin 1981, Volume 65, entitled "Stratigraphy and Intertonguing of the Blackhawk and Starpoint Sandstone, Central and Southern Wasatch Plateau Coal Fields, Utah", by Sanchez, Brown, and Muldune.

The igneous dike encountered in the Belina No. 1 mine has also been located at four (4) additional sites in or near the Mine Plan area. The five (5) locations, shown on the attached Map

No. C-5, are numbered 1 through 5 for easy reference.

Site No. 1 is drill hole No. 75-25-1, located near the Skyline Mine. In this hole, the dike was encountered at a depth of 25 feet and extended to 144 feet.

Site No. 2 is within the Belina No. 1 mine where the dike was measured at 240 feet, in the South Main entries, under approximately 950 feet of cover.

Sites No. 3 and 4 are found along the Boardinghouse Canyon Road, approximately 0.5 and 1.25 miles northwest of Clear Creek, Utah, respectively. At these two (2) locations, the road runs parallel to the dike and between these points, numerous outcrops ranging from a few inches to two (2) feet in width may be observed. These outcrops are weathered to a soft micaceous sand.

Site No. 5 is found at the old Clear Creek strip pit. Mine maps of this location indicate a series of three dikes each, approximately 10 feet in width and all located within a 300 feet distance at this site.

Post-mining discharge from the Belina Mine portals is not necessarily anticipated. Once abandoned, the portion of the Belina Mines which lie below the regional water table will gradually fill until equilibrium is established within the mine (i.e. seepage rates into the mines are equal to seepage rates out of the mines to underlying formations). The anticipated level to which the mines would fill would be equal to or slightly above the point where the mine tunnels intercepted the surface of the original water table. Since the mine entry points are located on the updip side of the mountain and lie above the piezometric surface of the original water table, discharge from the portals is not anticipated.

An exception to the above statement could occur if a "plumbing system" is intercepted or created by the mine workings such that excess pressure head acts on the water collected in the mine over and above pre-mining conditions. Such a condition could be created by subsidence cracking which intercepts the ground surface and induces additional direct recharge from surface runoff down into the mine. Impacts due to subsidence were outlined in the "Hydrology Update" prepared in September of 1983 and submitted to OSM, and will, therefore, not be reiterated herein. Subsidence cracking could create the "plumbing system" described above and during the runoff period of the year (if recharge through subsidence cracks is sufficient) mine water discharge could result. Impacts to surface water quality as a result of surface runoff being directed through subsidence cracks down into the mine are discussed on pages 28 and 29 of the above referenced report. Mine discharge resulting from a subsidence cracked "plumbing system" would be sporadic and is expected to occur only during the runoff season of abnormally wet years.

Of the abandoned mines known to be discharging at their respective portals, all are either located on the downdip side of the vein such that any water seeping into the mine would naturally

drain out, or are rock tunnels (graded down gradient from the mine to the surface) which intercept the mine workings back within the regional water table and thus create a spillway for mine water before water in the mines achieves equilibrium. Two of these mines, the Winter Quarters Mine in Winter Quarters Canyon and the Utah Fuel No. 1 and No. 2 Mines near Clear Creek, are located within the downdip side of the vein and, therefore, water would be expected to drain from their portals.

Should water be discharged from the Belina Mines, it is anticipated that the water quality would be comparable or somewhat higher in chemical constituents to that which is currently discharged from the mine. As reported on page 28 of the above referenced report, the flow weighted average TDS concentration of the discharge from the Belina No. 1 Mine during water year 1980 was approximately 325 mg/l. Water quality of water discharging from the abandoned Utah Fuel Mines near Clear Creek was monitored monthly from October 22, 1980, to December 23, 1981. Over that period of time, TDS concentrations varied from 394 mg/l to 468 mg/l. Three samples were collected in water year 1982 from waters discharging from the abandoned portal at the Winter Quarters Mine. Water quality flowing from the Winter Quarters Mine was poor for the area, with TDS varying from 910 mg/l to 1075 mg/l. Considering the quality of water currently made in the Belina Mines, it is anticipated that should water be discharged from the Belina Mines during the post-mining period (which as indicated previously is not anticipated) the TDS concentration of the discharged water would be less than 400 mg/l.

North-south and east-west cross-sections were provided in Appendix N of Volume VI.

NOTE:

The attached Page No. 783.15/784.14-4 of Section 783.15 Volume VI, has been revised to reflect the above discussion on the dike, and reference to new Map No. C-5. This page should be substituted into its proper place, and Map C-5 Rev. 1, Drawing No. C5-0035, substituted into envelope 10 of Volume V, replacing the existing Map C-5.

on pages 36-40 and shown on Plates 5 and 6. Details regarding the water rights are presented on Tables 16 thru 19 of the 1980 "Hydrologic Inventory and Baseline Study".

- (4) The potential changes in ground water quality are described on pages 28 and 29 and 34 and 35 of the "Hydrology Update".
- (5) The drill logs of those holes penetrating the Aberdeen sandstone are shown graphically on the cross-sections in Appendix B to the "Hydrology Update".
- (6) The potential impact of mining on springs and wells is discussed on pages 23 thru 36 of the "Hydrology Update".
- (7) The primary discussion of the effect of the dike on the ground waters system is on pages 8 and 9 of the "Hydrology Update".
- (8) The primary discussion of the mine water balance is on pages 32 and 33 of the "Hydrology Update".

Graphic cross-sections through the Belina Mine area showing the lamprophyne dike and faults found in the No. 1 mine are included in Appendix B of Appendix N, (Drawing Nos. D1-0089 and D1-0090).

The pump testing of the Coastal States Energy test well is considered to be conservative in the sense that the effect of too short a test is to overestimate the transmissivity. The data from this test sequence is included on pages 13 thru 17 of the "Hydrology Update".

The igneous dike encountered in the Belina No. 1 mine has also been located at four (4) additional sites in or near the Mine Plan area. The five (5) locations, shown on the attached Map No. C-5, are numbered 1 through 5 for easy reference.

Site No. 1 is drill hole No. 75-25-1, located near the Skyline Mine. In this hole, the dike was encountered at a depth of 25 feet and extended to 144 feet.

Site No. 2 is within the Belina No. 1 mine where the dike was measured at 240 feet, in the South Main entries, under approximately 950 feet of cover.

Sites No. 3 and 4 are found along the Boardinghouse Canyon Road, approximately 0.5 and 1.25 miles northwest of Clear Creek, Utah, respectively. At these two (2) locations, the road runs parallel to the dike and between these points, numerous outcrops ranging from a few inches to two (2) feet in width may be observed. These outcrops are weathered to a soft micaceous sand.

Site No. 5 is found at the Old Clear Creek strip pit. Mine maps of this location indicate a series of three (3) dikes each, approximately ten (10) feet in width and all located within a 300 feet distance at this site.

UMC 784.15 POST MINING LAND USE

The applicant has not stated what the postmining land use will be for the offices and warehouse portions of their permit area. This information is needed to prepare the TA for UMC 784.15 and UMC 817.133. In addition, a letter from the landowner accepting the proposed postmining land use has not been provided. (See comments under UMC 784.22).

COMMENTS

With respect to the references to inadequacies regarding landowner consent as identified in UMC 784.15 and UMC 784.22, it is submitted that such consents and letters are not required by the Act or the regulations. In support of this contention, reference is made to UMC 784.14(b) which simply requires that the description of the postmining land use should be accompanied by a copy of the comments, if any, of the landowner concerning said use. The operator has previously solicited comments from the landowners, (evidence of such solicitation is on file at applicant's office) and no comments were received. There is no requirement that the operator obtain the consent or approval of the landowner as to postmining land use. In fact, in its rulemaking proceedings, OSM expressly refused to promulgate any such requirement. In a combined reference to the provisions of § 817.133, the published preamble to § 816.133 states:

A few commentators suggested that the introductory paragraph of Section 816.133(c) be changed to require approval of the landowner rather than mere consultation. The office recognizes that regulatory authority approval for a postmining land use which is in conflict with goals of the landowner may present many problems. However, since the additional requirement of landowner approval is not authorized by the Act, these suggestions were rejected and no changes were made.

44 Federal Register, at 15243 (March 13, 1979).

UMC 784.20 SUBSIDENCE CONTROL PLAN

The applicant has not responded adequately to the request for a more detailed subsidence monitoring plan as outlined in the final DOA. The final DOA required that Valley Camp provide a physical ground survey which will document the angle of draw early in the mining sequence. The determination of this angle will establish the limits of the buffer zones necessary to avoid disturbance of the existing streams and gas pipeline. In addition, Valley Camp's subsidence control program should be presented as a separate item under Section 784.20.

Valley Camp's September 16, 1983, response indicated concern regarding potential subsidence effects to springs and streams. The company acknowledged that springs may be lost in areas where overburden was less than 400 feet and the company committed to leaving pillars under the perennial streams (i.e., under such streams where overburden is less than 400 feet). A new question is raised with respect to Valley Camp's proposal to have barrier pillars under a narrow width of valley along perennial streams: Will the erosional stability of the streams be seriously altered because the streams may actually be higher than adjacent subsided areas (i.e., as on a pedestal)? Valley Camp must respond to this concern.

COMMENTS

The annual pedestrian subsidence survey, above mined areas of the Belina Mines, was conducted in August, 1983. The results of this survey were indicated on the updated Subsidence Base Map (Plate 3), found in the Vaughn-Hansen Report submitted in Volume VI.

The annual Forest Service flight was done on September 3, 1983. The results of this flight have not been issued to the applicant at this time.

In addition to the above, a registered land surveyor was enlisted to run control and elevations to all panels mined from the First East Sub-mains. This survey was completed the last part of October. When this information is obtained, a profile of each mined-out section will be made, which will indicate possible subsidence related surface features.

As part of previous submittals, the applicant committed to submission of an annual "Subsidence Report" to the Division. This report will be comprised of information obtained from the above mentioned activities and should be submitted sometime in January of each year.

Until such time as an accurate determination of the extent of subsidence can be made, an absolute declaration as to the angle of draw, to be applied in this particular situation, cannot be made. At such time as this is accomplished, the applicant will continue to use 35 degrees as an adequate angle of draw for protection of perennial streams and gas pipelines.

This program, as outlined, should adequately delineate all mining related disturbances, as well as pre-existent surface disorders within the mine plan area.

In the narrow canyons with steep side slopes where barrier pillars will be left along perennial streams, there is no likelihood that subsidence will create a pedestal effect causing serious erosional instability in the streams. The barrier pillars are being left to eliminate differential settlement along and adjacent to the stream.

UMC 784.21 FISH AND WILDLIFE PLAN

Significant, unanswered, wildlife issues remain with regard to the development of the proposed conveyor system; however, Valley Camp has indicated that they are not currently seeking permit authority to build the conveyor. Conveyor related wildlife inadequacies will be raised again when Valley Camp applies for a permit revision to build this structure.

Other remaining UMC 784.21 inadequacies are as follows:

The applicant does not provide some key information on the revegetation/restoration of riparian habitat. The applicant commits to developing riparian habitat in accordance with details provided in Appendix B, Vol. III (see statement: Response to UMC 784.15 dated September 13, 1983, p. 4). However, this information does not address specific plant composition of trees/shrubs or the proposed planting density of trees/shrubs that will actually be used in the revegetation efforts. A wide variety of options are possible. The applicant must provide the following:

1. The specific percent composition by species of trees and/or shrubs that will be used in developing the riparian habitat. Such information was provided for revegetating north and south-facing slopes (Appendix M, p. 5, dated September 14, 1983). Equivalent information for the riparian habitat must be included.
2. The proposed density of tree and shrub plantings by species that will be used in riparian areas. Density should be expressed in units that represent a typical planting site (i.e., number of trees per 100 feet²).
3. The tree and shrub density of a typical planting site for both north-facing and south-facing slopes.

The applicant has not shown or described where the 40 north-facing slope and 20 south-facing slope plots will be located as requested in the final DOA.

COMMENTS

1. The riparian zone is uniform to such a degree that aspect is of no measurable significance and that the species in question are adapted to the minor variation which may occur in the microclimate and ecotone; which may occur in aspect, soil, moisture, etc.

The exact percent composition of species will be manipulated by subsequent plantings and/or thinnings to gain a satisfactory correlation to the reference area.

2. Based and correlated to the site index and condition of the corresponding reference area, 2.7 to 3 trees and/or shrubs per 100 feet² will be used in riparian areas.

3. Refer to Appendix M, Volume VI.

The sixty (60) clump plantings (40 locations on North facing slopes and 20 locations on south facing slopes) will be located in such a manner as to create cover corridors for travel from the undisturbed areas adjacent to the Belina site, to the riparian zone. The specific location of these plantings cannot be plotted at this time, as that will depend largely upon the size of the reclaimed openings, final location of meandering overland channel, anticipated direction of animal migration, and other influencing factors. Prior to locating these plantings, the applicant commits to incorporating the recommendations of the Division of Wildlife Resources as related to these random plantings. By properly locating these plantings, the applicant expects to maximize wildlife utilization of the feral habitat by providing desirable cover conducive to such employment.

UMC 817.97 PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Significant, unanswered, wildlife issues remain with regard to the development of the proposed conveyor system; however, Valley Camp has indicated that they are not currently seeking permit authority to build the conveyor. Conveyor related wildlife inadequacies will be raised again when Valley Camp applies for a permit revision to build this structure.

Other remaining UMC 817.97 inadequacies are as follows:

- (1) Attachment 4, Appendix M, referenced on p. 4 of the September 16, 1983, responses not included in the September 16, 1983, response. The applicant still makes generalized and unspecified commitments to protecting wildlife (Appendix M, Attachment 2, p. 2) with respect to future mine expansion and operations and to other miscellaneous mining situations. This type of issue has been a major concern of the USFWS. Therefore the applicant must:
 - a) Identify what the specific wildlife safeguards are and how they will be implemented (Appendix M, Attachment 2, p. 2, paragraph 3);
 - b) Specifically identify what other situations are envisioned that would disturb wildlife habitats and explain what best available reclamation procedures would most likely be used for each type of situation (Appendix M, Attachment 2, p. 2, paragraph 4);
 - c) Valley Camp should contact Lynn Kunzler of UDOGM and/or Jim Munson, USFWS, to get guidance on providing the specific information required under a and b.
- (2) Items No. 4 and 5 of the final DOA letter have not been addressed in a manner facilitating analysis. The rationale, assumptions, and basis for concluding that a net gain of about 15,000 feet² of riparian habitat will be produced is not clear. The narrative description (Appendix M, Attachment 1) implies a continuous belt of riparian habitat development, while Reclamation Map D-1 implies small islands of riparian habitat. The applicant must provide the calculations and assumptions that clearly show in a logical progression how the specified net gain in riparian habitat acreage was determined.
- (3) The applicant makes reference to currently conducting a planting program near the junction of the Belina haulroad and Eccles Creek to prevent silting impacts on the Creek, but does not provide site specific details on the planting program (response to 817.97 comments, page 5, 9/15/83). The UDWR (letter dated 9/8/83) identified siltation and turbidity impacts on the Eccles Creek fishing as outstanding issues of concern and specifically noted that considerable reclamation is still needed. Therefore, the applicant needs to provide the following:

- a) A description of how site preparation prior to seeding will be conducted on slopes exceeding 40 degrees, as referenced but not described in Appendix M, page 4 (dated 9/14/83). Since the slopes of concern are generally steeper than 40 degrees, the descriptions of methods are especially important for the TA.
- b) A description of the planting program identified above (referenced: response of 817.97 dated 9/15/83, page 4) including details of the special provisions that are being incorporated, if any, to; (a) stabilize and revegetate the steep slopes of the road shoulder; and, (b) prevent further siltation impacts on aquatic life in Eccles Creek and Whiskey Gulch.
- c) A concise description of how the procedures identified in 1 and 2 above will specifically prevent siltation impacts on aquatic life in both streams, from both short-term and long-term perspectives.
- d) A description of : 1) species composition and spacing (i.e. planting density) of woody species in the riparian area of Whiskey Gulch; and, 2) the source and reclamation of the source of "clumps" (Appendix M) to be used for reclamation. Also, the applicant must identify the reference area for the riparian zone.

COMMENTS

The reference to attachment 4, Appendix M, referenced on page 817.97-5, paragraph 5, should have been Attachment 2 of Appendix M.

- (1) a) Valley Camp has committed to the following wildlife safeguards:
 - (1) Education of all mine personnel to mitigate undue impacts to wildlife [new employees as well as an annual refresher course for all employees].
 - (2) To reclaim all disturbed areas as quickly as weather and conditions permit.
 - (3) To utilize plant species which are beneficial to target species of wildlife.
 - (4) To avoid unnecessary disturbance during birthing periods.
 - (5) To construct facilities to minimize adverse impacts of wildlife.
 - (6) To enhance, wherever possible, structures such as sediment ponds, to facilitate wildlife (i.e., salamander population Belina Pond).

- (7) To regulate speed on all roads to minimize vehicle-wildlife accidents.
- (8) To monitor and report any and all unusual sightings or encounters with wildlife.
- (9) To cooperate with the Division of Wildlife Resources to whatever extent is possible to protect and maintain our local wildlife.

Refer also to UMC 784.21, Volume III, for additional information.

- (1) b) Other than the conveyor, which has been proposed and discussed at length, Valley Camp does not anticipate any additional disturbances. As previously mentioned on several occasions, should the need for additional surface disturbances become necessary, the applicant will pursue all avenues of regulatory approval prior to commencement of any such disturbance.
- (2) The consulting firm of E.I.S. was contracted to determine the amount of riparian habitat which existed both above and below the Belina Mine disturbance. Actual measurements were taken above and below the mine at 5 meter intervals, and the riparian zone identified and mapped. A mean and a computer simulation of what existed along Whiskey Gulch prior to the disturbance was formulated.

The stream reclamation design took the meander line, as well as the zone of moisture maximization, into consideration to determine that area which would sustain a riparian habitat. This area then was mapped and measured to estimate a net gain of 15,000 feet². It is understood that this is an estimation only, and that exact calculations are not realistic at this point. Although it is relatively safe to assume, based on meander line alone, a net gain in riparian habitat is highly probable.

A continuous band of riparian habitat will be established; the clumps are created with the silt traps and will be in evidence during low flows and inundated during high flows. They are not included in the base calculations as to total area.

- (3) a) Site preparation prior to seed consisted of utilizing a "Region 6 Planting Tool" to create small terraces or benches approximately 18" x 12" along the contour of the slope. These terraces were utilized to plant containerized seedlings on. The actual terracing, as well as the human activity necessary to build the terraces, created an enhanced seed bed by breaking surface crusting and creating small catchments to retain seed. Mulch and tackifying procedures are outlined in Appendix A, of the September 1983, submittal.

- (3) b) A description of the planting program referenced here is found in response 3-A above. Upon completion of tree planting, the area(s) of concern were again reseeded, via hydroseed methods. This work was accomplished in conjunction with the revegetating of disturbed areas along the Belina Road resulting from the paving activities. This work (revegetation) was completed on October 28, 1983.
- (3) c) The utilization of both tackifying agents and mulches is a well proven methodology to retain soil movement and thus minimize siltation on a short-term (1 year). It is advocated by the UDWR, USFS, and BLM as the best methodology available for large scale application where revegetation is the desired end result.
- The long-term goal (in excess of 1 year) is to re-establish a diverse and stable vegetative cover which will sustain itself, and in so doing, act as a stabilizer as well as a vegetative filter to preclude siltation of the creeks in question.
- (3) d) As Valley Camp has indicated previously, there is in excess of 3 acres of interim revegetation well established on the Belina site. The vegetation will inadvertently need to be removed at the cessation of mining activities and the onset of recontouring and reclamation. With minor loss, this well established vegetation can be relocated in a sequential manner as the reclamation of the site commences. Thus, providing a source of "clumps" while at the same time, reclaiming in the normal process those areas where the clumps are removed.

The species composition of the clumps at this point is conjecture due to the cessation toward a climax community which will transpire over the next 20+ years. However, it is a safe assumption that in this time frame, those species which are in evidence would be well adapted to the site.

The riparian reference area is 100 meters above and below the disturbance along Whiskey Gulch.

UMC 784.22 DIVERSIONS

Remaining inadequacies are as follows:

1. Valley Camp still has not provided a notarized letter from the landowner (Milton Oman) accepting the postmining land use. In addition, as a result of the September 16, 1983 information submitted by the applicant, a letter from the landowner accepting responsibility for maintenance of the channel diversion and permanent impoundment (UMC 817.133) must be provided.
2. In the final DOA, Valley Camp was asked to provide riprap sizing designs for channel base and discharge areas, and they responded with an acceptable design for sizing the riprap on a "run-of-pit" basis. Run-of-pit rock does provide for some range of rock sizes, but this does not ensure a stable non-eroding channel. Valley Camp must commit to riprap with a gradation curve as called for in HEC II (Federal Highway Administration, June 1967) or other pertinent reference. All riprap sections with a D_{50} greater than 12 inches must have 6 inches of sand and gravel bedding or other acceptable bedding gradation or a filter cloth below the riprap.
3. Valley Camp was also asked in the final DOA to establish both the sinuosity and longitudinal profile of the reclaimed permanent channel in Whiskey Gulch, and they provided this information for the channel on top of the Whiskey Gulch fill. However, the applicant still needs to provide plans and profile of the channel drop section. These plans must show the sinuosity and longitudinal profile of the channel drop section or the reclaimed, permanent channel. Valley Camp must provide as-built design, plans, and construction specifications for the channel drop section as requested in the final DOA.

COMMENTS

1. In connection with the inadequacies described under UMC 784.22, it appears that a separate letter regarding maintenance responsibility is being required from the landowner. Such an interpretation is contrary to both the regulations and the position of OSM in promulgating the regulations. As specified in the materials submitted, the operator has responsibility for the construction of the channel diversion and permanent impoundment contemplated as a postmining land use. In this circumstance, OSM has expressly recognized that there is no need to obtain any letter of commitment from third parties, since the operator will be doing both the mining and the development of the postmining land use. We quote the following from the Federal Register Vol. 44 - No. 50, March 13, 1979, Book 2, Page 15244:

The fifth alternative, qualifying the letter of commitment requirement with the words "if appropriate" is feasible if "appropriate" is well-defined. In the context of this subparagraph, "if appropriate" excludes only those operators who are going to do both the mining and the development of the postmining land use from obtaining a letter of commitment from third parties. Release of the operator bond, in such instances, will be contingent on fulfillment of the postmining land use obligation.

In these cases, the letter of commitment must still be provided as a part of the permit application, but it may be signed by the operator. The office has determined that the fifth alternative will protect the interests of the public and allow operators the necessary flexibility. Accordingly, the words "if appropriate" have been added to Section 816.133(c)(4).

The operator's commitment, as suggested in the above quote, is evidenced by its signed permit application.

2. Figure 3-35, attached, provides a riprap gradation curve for the reconstructed stream channel. The mean diameter of the riprap was determined by the techniques presented in the National Cooperative Highway Research Program, "Research Results Digest". The calculation is presented on Figure 3-33.

The gradation curve is based on the sample distribution provided in Section 10-2.1 (Dumped Riprap) of "Hydraulic Engineering Circular No. 11", published by the U.S. Department of Transportation. The curve has been adjusted to account for the difference between the D_{50} (0.66') of the example, and the D_{50} of the (0.58') recommended for the reconstructed channel.

The channel drop section for the reclaimed overland channel was constructed as part of the reconstruction of the lower pad and sedimentation pond No. 4. The applicant cannot confirm the use of gravel bedding for placement of riprap in this channel at the time of construction. However, all related construction of this facility was performed under constant supervision of a Golder Associate's geotechnical field engineer, who was responsible for insuring that the work was performed in conjunction with standard engineering practices and the requirements of the Division. The entire facility was also designed to accepted criteria governing such installation in 1979.

The site grading plan, as prepared by Golder Associates, was submitted to the Division for review on July 24, 1979.

3. A plan and profile drawing of the drop channel (sediment pond spillway) is included as Figure 3-36.

For as-built design, plans and construction specifications for the channel drop section, please refer to the Golder Associates report found in Appendix A, Volume V.

Figures 3-35 and 3-36 will be inserted into section UMC 784.22 of Volume VI, along with revised page No. 784.22-2 upon final approval.

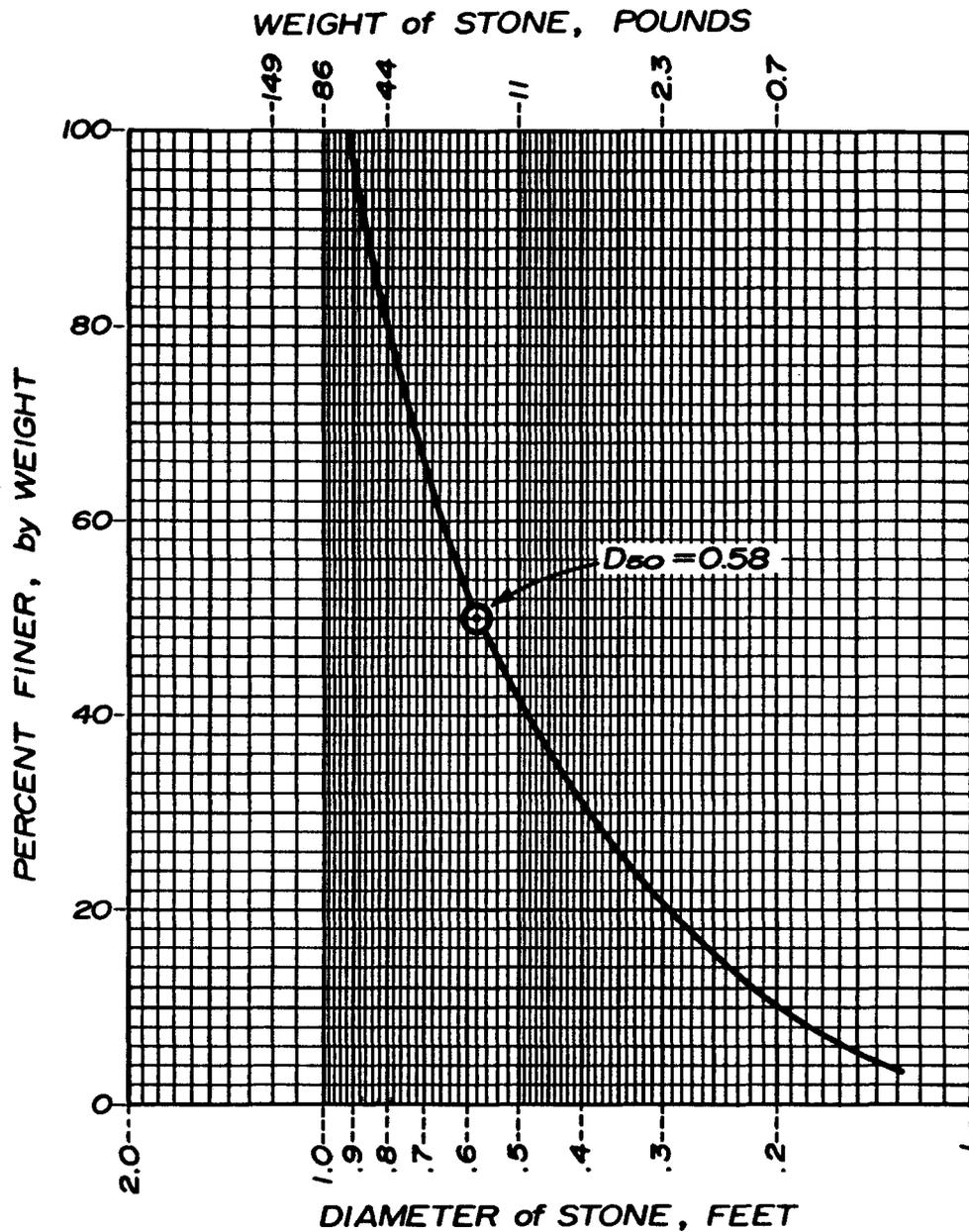
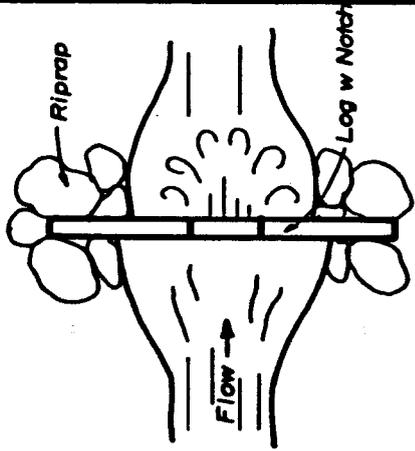
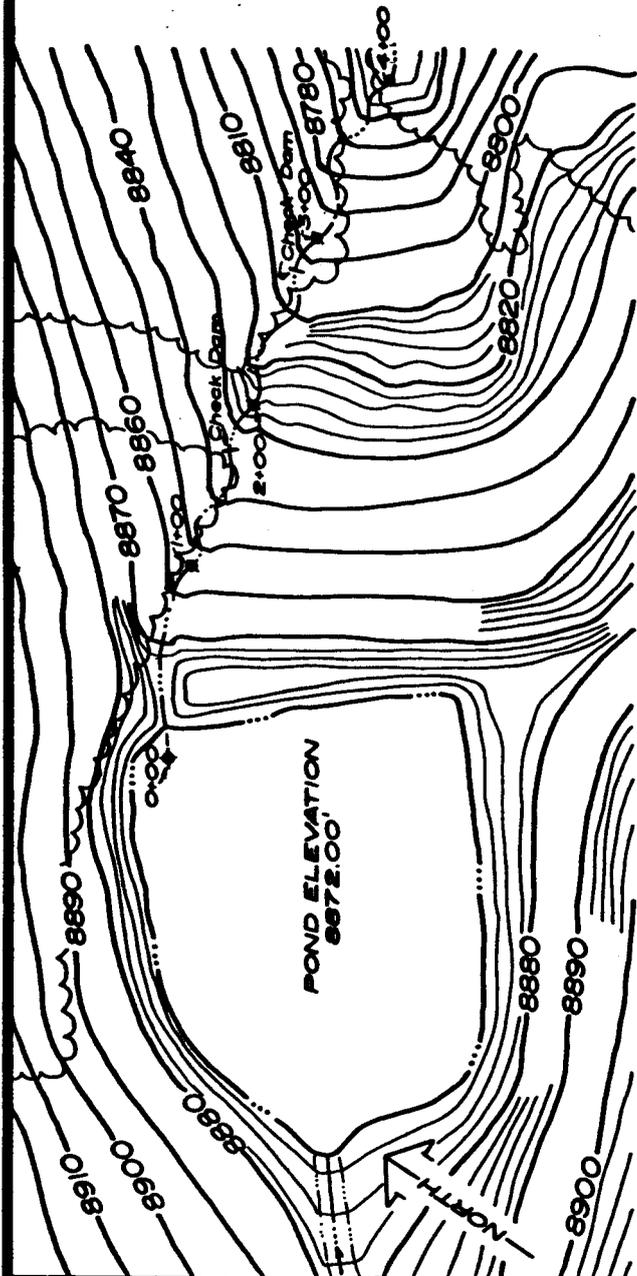


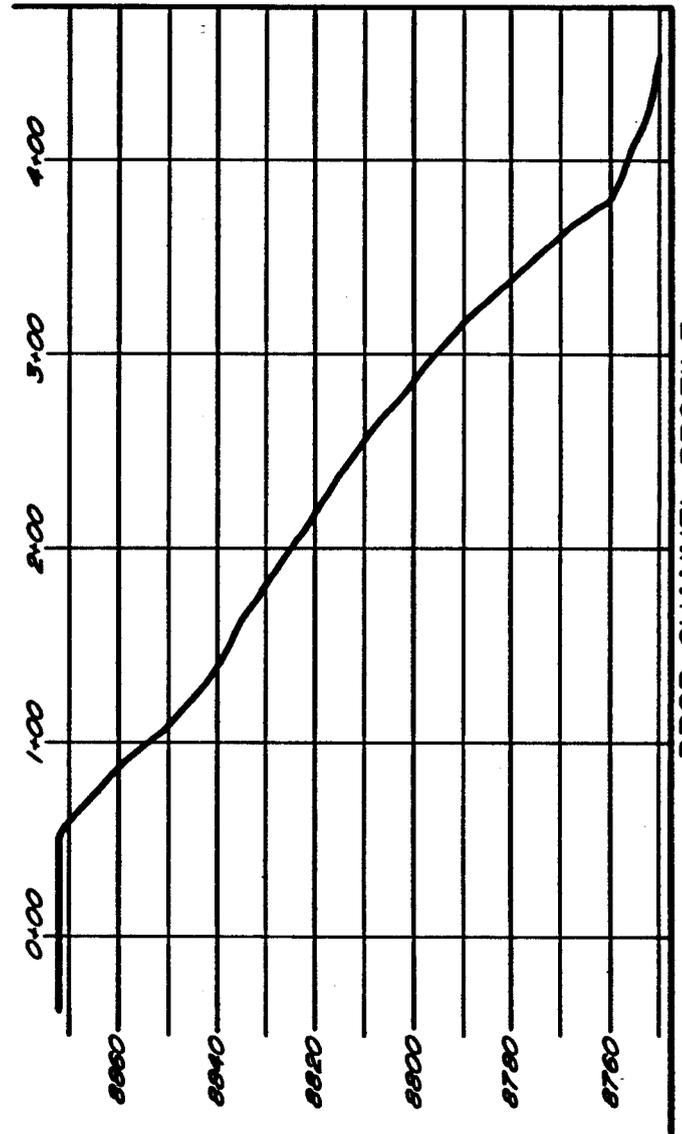
FIGURE 3-35. Gradation curve for Riprap. Adapted from the U.S. Dept. of Transportation Circular 11.

DRAWN BY: Ed Sanderson	DATE: Nov. 14, 83	 VALLEY CAMP of UTAH SCOFIELD ROUTE HELPER, UTAH 84526
CHECKED BY:	DATE:	
REVISED BY:	SCALE: NONE	
APPROVAL ENG.:		
APPROVAL SAFETY:	TITLE: RIPRAP, Gradation Curve	DRAWING NO. A5-0078
APPROVAL MINE:		REV. NO. 0

Figure 3-35



CHECK DAM, Plan & Profile
NO SCALE



DROP CHANNEL PROFILE
SCALE: Horiz. - 1" = 100' Vert. - 1" = 40'

DRAWN BY: Ed Sanderson	DATE: Nov. 15, 83
CHECKED BY:	DATE:
REVISED BY:	SCALE: "As Noted"
APPROVAL ENG.:	
APPROVAL SAFETY:	TITLE: DROP CHANNEL, Plan & Profile - Below Sediment Pond
APPROVAL MINE:	



VALLEY CAMP of UTAH
SCOFIELD ROUTE
HELPER, UTAH 84526

DRAWING NO. A5-0079	REV. NO. 0
------------------------	---------------

Figure 3-36

result from relatively minor regrading.

4. Riprap was sized using Highway Research Board (National Research Council) procedures.
5. Velocity calculations are provided on Figures 3-33 and 3-34.
6. Riparian habitat is discussed in the text, and in Sections 784.15 and 784.21.
7. There is no specific freeboard for the reconstructed channel. The channel sides merge into the reclaimed slope.
8. Map D-4 has been revised to show the reconstructed channel, and related details, including a stream profile.
9. Riprap gradation curve for reconstructed stream channel is provided on Figure 3-35.
10. Plan and profile of the drop channel (sediment pond spillway) is provided on Figure 3-36.

UMC 784.23 OPERATION PLAN: CERTIFICATION OF MAPS, PLANS, AND
CROSS-SECTIONS

Valley Camp's September 16, 1983, submittal states: "A professional engineer or geologist has certified all maps, plans, and cross-sections...". This is unacceptable. Valley Camp must have either a qualified professional engineer or a professional geologist certify (with his seal and signature), each map, plan, and cross-section in the application. It would be sufficient for Valley Camp to provide a letter properly signed by a professional engineer or geologist that references those maps, plans, and cross-sections in the application which are not currently certified accompanied by a reference attached to the uncertified plans, maps and cross-sections back to this letter.

COMMENTS

A certification letter from Mr. Edwin B. Foust, P.E., referencing maps and drawings found in Volume VI, which are without an appropriate seal, is submitted for insertion into UMC 784.12 of Volume VI as page 18.

The maps and drawings listed below and included in Volume VI of Valley Camp of Utah, Inc. mining permit application were prepared under my supervision, and to the best of my knowledge can be certified as correct.

DRAWINGS

No. A5-0069
No. A5-0064
No. A5-0063
No. A5-0066
No. A4-0062
No. B4-0010
No. A5-0065
No. A5-0067
No. A5-0070
No. A5-0071
No. A5-0068
No. B5-0011
No. A5-0072
No. A5-0075
No. A5-0076
No. A5-0079

MAPS

D5-0087
D5-0088
D1-0089
D1-0090
C-6
D-1
D-2
P-1
P-2
P-3



Edwin B. Foust, P. E.
Utah Registration #05323-0916-0
10 November 1983

UMC 817.54 HYDROLOGIC BALANCE WATER RIGHTS AND REPLACEMENT

In the September 16, 1983, response, Valley Camp proposed to keep the sedimentation pond at the Belina portal yard as a permanent impoundment. Valley Camp must commit to transferring sufficient water rights to the post-mining land use to provide for storage of water in this pond. If the State Engineer does not require a transfer of water rights to this permanent impoundment, Valley Camp must provide a letter from the State Engineer stating such.

COMMENTS

It is the applicant's position that neither the commitment by Valley Camp nor the letter from the State Engineer is required by the regulations. In this regard, it is the applicant's understanding that water rights can only be transferred to persons and other legal entities, therefore, a literal interpretation of the request would preclude submittal of such letters by either the applicant, or the State Engineer, inasmuch as the stated deficiency would require a commitment to transfer "to the post-mining land use", or a determination by the State Engineer regarding a transfer to a "permanent impoundment".

In lieu of such submittals, the applicant does commit to the following, which it believes satisfies both the regulations and the spirit of the stated deficiency.

"In connection with the applicant's proposal to leave the No. 4 sediment pond at the Belina portal area intact, as a permanent impoundment (UMC 784.15), and prior to release of the reclamation bond, Valley Camp of Utah, Inc., commits to transfer sufficient water rights to the appropriate landowner to provide for storage of water in the pond." This transfer, of course, being subject to the requirements, for such purposes, of the laws of the State of Utah governing such water rights at the time of final reclamation.

land (most of the existing structures are already over 30 years old) it is impossible to predict the most appropriate future use of the office/warehouse area.

Valley Camp will commit to the removal of the structures and revegetating the disturbed area. But, Valley Camp retains the option of donating the site to the Alpine School District if the facilities are appropriate to their needs in 2010. In either case, there will not be a change in land use (as defined by the USGS Level II Criteria) and the site will blend with the surroundings. As shown by Maps I and J, Volume IV, the area surrounding the structure and access road has been left in its premining cover of grass and scattered trees.

As the level of disturbance at this site is minimal (perhaps less than that at the adjacent Alpine School District site) and it will be returned to a use compatible with adjacent land uses, no adverse public health or environmental impacts are projected. The site will be in compliance with UMC 817.133.

The proposed land use is compatible with Carbon County zoning regulations, as confirmed by the attached letter.

The site is owned by Valley Camp of Utah, Inc. which will be responsible for the land use decisions described above.

Post-mining Use: Utah No. 2 Portal and Loadout Area

The Utah No. 2 portal and loadout area will be returned to a predominately grassy rangeland area, as illustrated by maps D3-0076 (Volume V) and J (Volume IV). The grass/forb/shrub seed

UMC 817.101(b)(4)(iii) BACKFILLING AND GRADING: GENERAL REQUIREMENTS

Several cut and fill terraces adjacent to the Belina portals exceed slopes greater than 1 vertical:2 horizontal (50 percent). If the terraces are to remain as a function of the post-mining land use, geotechnical analyses reports should be submitted demonstrating that the cut and fill terraces have a minimum static safety factor of more than 1.3, that adequate control of erosion will be provided, and surface configuration closely resembles the landscape prior to mining.

COMMENTS

Results of the geotechnical mapping and drilling program, performed by Morrison-Knudsen Company (Mining Group), is included as Appendix L. Map D-1 will be modified, if necessary, to provide slopes of 2 horizontal:1 vertical or less and/or a minimum static safety factor of 1.3.

As described in the revised Section 784.13, the reclaimed terrain will resemble the pre-mining landscape.

APPENDIX L

Geotechnical Investigation of
Cut Slopes at the Belina Mine Complex
and Haul Road
Carbon County, Utah

Prepared for

Valley Camp of Utah, Inc.
Helper, Utah

Prepared by

Morrison-Knudsen Co., Inc.
Boise, Idaho

October, 1983

TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
1.0	INTRODUCTION	1
	1.1 General	1
	1.2 Scope of Work	1
2.0	FIELD INVESTIGATION	2
	2.1 General	2
	2.2 Backslope Drilling Program	2
	2.3 Fill Pad Boring	3
	2.4 Boring Logs	3
	2.5 Composite Logs of Cut Slopes	4
	2.6 Detail Line Maps	4
	2.7 General Reconnaissance of Mine Facilities Area	4
	2.8 Reconnaissance of Cut Slopes on the Haul Road	4
3.0	GEOLOGY AND SITE CONDITIONS	6
	3.1 Geology of the Area	6
	3.2 Backslope Above the Upper Portals	6
	3.3 Backslope Above the Office/Changehouse	8
	3.4 Cut Slope Near the Coal Loadout Chute	8
	3.5 Cut Slopes on the Haul Road	9
4.0	LABORATORY TESTING	
	4.1 Moisture and Density Determination	10
	4.2 Atterberg Limits Test Data	10
	4.3 Unconfined Compression Tests	10
	4.4 Triaxial Compression Tests	10
	4.5 Direct Shear Tests	11
5.0	SLOPE STABILITY ANALYSIS	12
	5.1 General	12

5.2	Analysis of Backslope Above Upper Portals	13
5.3	Analysis of Backslope Above The Office/ Changehouse	13
5.4	Analysis of the Cut Slope Near the Coal Loadout Chute	13
5.5	Analysis of the Haul Road Cut Slopes	13
6.0	CONCLUSIONS AND RECOMMENDATIONS	15
6.1	General Conclusions	15
6.2	General Recommendations	15
6.2.1	Backslope Above the Upper Portals	15
6.2.2	Backslope Above the Office/ Changehouse	15
6.2.3	Cut Slope Near the Coal Loadout Chute	16
6.2.4	Haul Road Cut Slopes	16

LIST OF TABLES

<u>TITLE</u>	<u>TABLE NUMBER</u>
Moisture and Density Determinations	1
Atterberg Limits Test Data	2
Unconfined Compression Test Results	3
Direct Shear Test Data	4

LIST OF FIGURES

<u>TITLE</u>	<u>FIGURE NUMBER</u>
Geotechnical Investigation Site Plan	1 (in map pocket)
Boring Logs	2-6
Logs of Cut Slopes	7-8
Detail Line Data Sheets	9-10
Descriptions of Haul Road Cut Slopes	11-13
Geologic Cross Sections	14-17
Direct Shear Test Results	18-20
Computer Geologic Models for Stability Analyses	21-23
Stereographic Projections	24-26

1.0 INTRODUCTION

1.1 GENERAL: At the request of Valley Camp of Utah, Inc.(Valley Camp), a geotechnical investigation was initiated on September 13, 1983 at the Belina Mine located in Carbon County near Helper, Utah. The purpose of this investigation was to evaluate the stability of cut slopes in the mine facilities area and on the 1.4 mile long haul road leading to the mine from Eccles Canyon.

1.2 SCOPE OF WORK: The geotechnical investigation consisted of a drilling and sampling program, field reconnaissance and mapping, laboratory testing, and computer assisted slope stability analyses. This report presents the data obtained during the course of the investigation, as well as conclusions and recommendations formulated from that data base and other information furnished by Valley Camp.

2.0 FIELD INVESTIGATION

2.1 GENERAL: The field investigation was directed toward evaluating the stability of cut slopes steeper than 2 horizontal:1 vertical. At the mine facilities site, three major cut areas were investigated: the backslope above the upper coal stratum portals; the backslope above the office/changehouse; and, the cut slope near the coal loadout chute. Numerous cut slopes on the haul road were also examined and/or mapped which were steeper than 2H:1V.

2.2 BACKSLOPE DRILLING PROGRAM: Soil and rock samples were required to evaluate the stability of the backslope above the upper portals and the office/changehouse. To obtain these samples, four exploratory borings were drilled to depths ranging from 49 feet to 61 feet below existing grade at location shown on the Geotechnical Investigation Site Plan (Figure 1).

Drilling was performed using a CME-750 drill machine mounted on an all-terrain vehicle and equipped with 6.0 inch diameter continuous flight hollowstem auger and NX-size coring tools. Disturbed samples of soil and soft rock were obtained for laboratory testing and logging purposes using a Standard Penetration Test (SPT) sampler, which is driven into soil or soft rock by a 140 pound hammer with a free-fall of 18 inches. The number of blows required to drive the sampler one foot (known as the "N-Value") is a measure of the relative density of cohesionless soils and the consistency of cohesive materials. Relatively undisturbed soil and soft rock samples for laboratory testing were extracted using a 3-inch o.d. Dames and Moore sampler with inner-liner brass rings, which serve to protect the samples during shipment to the laboratory.

The hollowstem auger was used as casing for NX coring tools. A 10 foot long double tube core barrel with a split inner barrel and carbide or diamond bits was utilized to obtain rock samples for logging and laboratory testing. Water was used as a drilling medium. Excessive water loss into pervious rock strata was experienced at all boring locations. Additives such as bentonite, cellulose, nut shell and DE-7 polymer did not significantly reduce the water loss. Only in borings in the vicinity of a 12,000 gallon

water storage tank, automatically resupplied by pumped water, could sufficient quantities of siphoned water be obtained to allow continuous coring operations.

Soil and soft rock samples were immediately sealed in plastic bags, placed in airtight containers, and stored in special foam-padded aluminum boxes. Rock samples were placed in standard cardboard core boxes; samples selected for laboratory testing were wrapped in plastic, sealed, wrapped in paper, and stored in a padded box.

All borings were thoroughly backfilled with soil after groundwater readings were taken. In the spring, Valley Camp personnel should check the bore holes and refill them if necessary.

2.3 FILL PAD BORING: At the request of Valley Camp an exploratory boring was drilled on the existing earth fill pad to obtain soil samples for later testing, which will determine the suitability of the fill for reclamation purposes. Valley Camp provided burlap bags with plastic inner bags for sample collection at 2.5-foot intervals. Samples were identified for location and depth. It is our understanding that sample shipment and subsequent laboratory testing will be performed under the direction of Valley Camp. The location of this boring is shown in Figure 1. It was backfilled in the same manner as the four backslope borings.

2.4 BORING LOGS: Boring logs were prepared for the four backslope exploratory borings, and are included in the report as boring nos. 1 through 4 (Figures 2 through 5). The fill pad boring was logged and is contained herein as boring no. 5 (Figure 6). Locations and top ground elevations of the borings were determined by Valley Camp personnel and are referenced to Belina Mine survey data points.

The boring logs include: the depths and elevations of major changes in soil and rock stratigraphic units; classification and description of natural soils in accordance with the Unified Soil Classification System; locations of disturbed, undisturbed, and cored soil and(or) rock samples; core sample

data, including the percentage of total core recovered and the percentage of core greater than 4 inches in length (rock quality designation, RQD); pertinent drilling information; and, groundwater data.

2.5 COMPOSITE LOGS OF CUT SLOPES: Two cut slopes in the mine facilities area exposed subsurface stratigraphic rock units and the orientation of fractures within those rock units. These cut slopes were logged in the same manner as an exploratory boring would be logged. The depths were estimated and fracture orientations were inferred from the same stratigraphic unit at several locations in the cut slope.

The composite log for the cut slope behind the office/changehouse building is included in this report as "B-6" (Figure 7), and the log of the cut slope near the coal loadout chute is included as "B-7" (Figure 8).

2.6 DETAIL LINE MAPS: Two detail line maps or detailed mappings of fracture orientations along a measured straight line were made in the cut slope near the loadout chute. The purpose of this mapping was to determine the orientation of primary and secondary joint sets and the nature of any infillings. These detail line maps are shown in Figures 9 and 10. The locations mapped are identified on the Geotechnical Investigation Site Plan (Figure 1), as "D1" and "D2".

Fracture orientations were determined using a hand-held Brunton compass.

2.7 GENERAL RECONNAISSANCE OF MINE FACILITIES AREA: Cut slopes in the mine facilities area were visually examined for evidence of tension cracks related to past and(or) potential slope movements, erosion or raveling problems, and abnormal vegetation growth above the cut slopes that may indicate slope creep. The results of this reconnaissance are included in site descriptions contained in Section 3.0 of this report, Geology and Site Conditions.

2.8 RECONNAISSANCE OF CUT SLOPES ON THE HAUL ROAD: Detailed descriptions of cut slopes on the haul road were prepared in the field. They are

presented in this report as Figures 11 through 13, which are organized as an odometer mileage log that begins at the beginning of the road in Eccles Canyon. Specific references to these cut slope descriptions are contained in other parts of this report.

Joint and other fracture orientations were measured by Brunton compass, and in most cases, the strikes and dips recorded are actually averages of readings taken on four or more different rock surfaces.

3.0 GEOLOGY AND SITE CONDITIONS

3.1 GEOLOGY OF THE AREA: It is not the purpose of this report to present detailed geologic data of the Belina Mine Complex. However, the following brief overview of the regional geology does provide data pertinent to the geotechnical investigation of the Belina Mine cut slopes.

The Belina Mine lies within the Wasatch Plateau Coal Field, in an area in which all of the coal mined lies within 400 feet of the base of the Blackhawk Formation of Upper Cretaceous geologic age. Other than several coal strata, the lithology is predominately composed of yellow and gray sandstones and siltstones with some interbedded shales.

Structurally the mine lies between two northward striking, vertical displacement faults, on the upthrown block of a horst-like geologic feature. The nearer of the two faults passes less than one-half mile to the west, which may have determined the gentle southwestward dip of stratigraphic rock units at and near the Belina Mine. According to Valley Camp personnel and the observations made for this investigation, the magnitude of the dip is about 4°. Undoubtedly, other less significant faulting has occurred that affects site-specific geology. The approximate location of a possible strike-slip fault passing through the area is indicated in Figure 1 of this report. Mining personnel have indicated that at least one fault with minor vertical displacement has been encountered underground.

Two coal strata are mined at Belina and outcrops of each stratum are located on the enclosed site plan (Figure 1). Separate sets of portals penetrate the two strata.

A generalized backslope lithologic section is presented in this report as Figure 14, which represents data obtained from the four backslope borings.

3.2 BACKSLOPE ABOVE THE UPPER PORTALS: Boring nos. 1 and 2 were drilled in an area in which some slide activity has been experienced. The boring logs indicate that 13.5 to 26.5 feet of colluvium and talus overlie competent bedrock strata, predominately composed of gray siltstones that exhibit

various degrees of differential weathering. Permeability of the bedrock strata is quite high up to the depths penetrated by the borings. However, 20 hours after drilling, a static groundwater level was measured at 12.5 feet below existing grade at the location of boring no. 1. This boring could not be continuously cored because of excessive water loss into the formations at many different depths. Therefore, it is believed that the water level reading is the result of a zone of seepage water, noted on the log at 12.5 feet, filling a hole that was finally sealed with a layer of drilling mud. The sealing occurred after the hollowstem auger was pulled (i.e., rotated up and down to clear the augers) from the bottom of the hole. It does not appear that the backslope above the upper portals has a static phreatic surface within the depths penetrated by boring nos. 1 and 2.

Several tension cracks, approximately one inch wide and 3 to 5 feet long, were observed in an area about 50 feet southwest of boring no. 1. A water seep was trickling from the slope, before drilling began, about 10 to 15 feet below boring no. 1. Evidence of some slope erosion from this seep could be seen. In the vicinity of boring no. 2 there is a distinct lack of tree growth and evidence of recent slide activity, including some erosional scour. No tension cracks or water seeps were noted. An overview of the area suggests that a fault may pass through the natural drainageway in the vicinity of boring no. 2. This conjecture is based only on surface characteristics, the unusual thickness of colluvium and talus in boring no. 2, and conversations with Valley Camp mining personnel. The exploration borings were not deep enough to confirm the fault presence. Vertical displacement of the fault should not be significant, based upon visual observation of the upper coal stratum outcrop.

In general, the backslope above the upper portals appears to be in a nearly natural condition. The slide area seems to be more the result of natural weathering processes on a daylighting fault zone than a condition caused by mining activities.

Sections A-A' and B-B' (Figures 15 and 16) present simplified geologic cross sections through boring nos. 1 and 2, respectively. The sections also show

sample locations and types, as well as the existing slope configurations above and below the borings.

3.3 BACKSLOPE ABOVE THE OFFICE/CHANGEHOUSE: Boring logs 3 and 4 indicate that about 11 feet of colluvium and(or) talus overlies predominately gray siltstones, shales, and sandstones. The bedrock strata are quite pervious, and in some instances a ten foot core run required about 1000 gallons of water to complete. In most cases, core runs were made with water loss of 75 to 100%.

Tension cracks, erosional scour, or seepage zones were not observed in the vicinity of boring nos. 3 and 4. Surface vegetation was lush, and numerous large trees indicated no evidence of slope creep. Except for the steep cut slope behind the office/changehouse, the backslope appears to be virtually natural.

The composite log of the cut slope behind the office/changehouse (Figure 7) shows a section of competent bedrock units. The strike of the slope is approximately parallel to the regional dip direction (to the southwest at $4^{\circ}\pm$), which is a favorable cut slope orientation. The same cut slope continues to the northeast, and at a point above the waste water treatment plant some potential for raveling of the upper coal stratum may exist which could precipitate a minor, shallow slide of overlying colluvium. Some raveling of the coal stratum above the office/changehouse may also occur.

Section C-C' (Figure 17) presents the generalized geologic section of this slope.

3.4 CUT SLOPE NEAR THE COAL LOADOUT CHUTE: The log of this nearly vertical cut slope is referred to herein as "B-7" (Figure 8). Detail line maps (Figures 9 and 10) present further data on fracture orientations. The sandstone exposed in this cut is massive and extremely competent. The overlying coal, however, has been cut quite steeply for about a 3-foot thickness. The coal raveling from this portion of the section even in a light wind. The gentler slope above the coal appears to be nearly natural to the

elevation of the existing tree line, although some evidence of erosional scour can be observed.

3.5 CUT SLOPES ON THE HAUL ROAD: The haul road from Eccles Canyon traverses the east side of the ridge on which the Belina Mine is located. The regional bedding plane dip direction to the southwest presents a favorable orientation for the haul road cuts. Neither cut slopes perpendicular to the dip direction nor cut slopes parallel to the dip directions, have downdip bedding planes daylighting into the slope faces.

Primary and secondary joint sets are prominent in many of the cut slope faces and dips of the joints are generally quite steep, steeper than the inclination of the cut slopes. The steep dip in itself often precludes the possibility of plane shear failure because unfavorable joint planes do not daylight in the slope face.

The primary joint set generally strikes north-south ($\pm 10^\circ$) and has an average dip of about 80° to the east. The secondary joint set generally strikes east-west ($\pm 10^\circ$) and has an average dip of 75° to the north.

The descriptions of cut slopes contained in this report (Figures 11 through 13) indicate only four relatively minor areas in which regular maintenance or remedial measures may be required to stabilize cut slopes. These areas will be further discussed in sections 5.0 and 6.0 of this report.

4.0 LABORATORY TESTING

A laboratory testing program was established to determine the engineering properties of soil masses and jointed and intact rock masses. Test results were utilized to properly classify material types and to provide strength parameters for use in slope stability analyses.

4.1 MOISTURE AND DENSITY DETERMINATION: Moisture and density determinations were performed on thirteen specimens. These data, found in Table 1, provide information relative to the degree of saturation, compressibility characteristics, and the mass weight of various stratigraphic soil and rock units. These data are required for slope stability analysis.

4.2 ATTERBERG LIMITS TEST DATA: To properly classify soils in accordance with the Unified Soil Classification System, the liquid and plastic limits (two of the Atterberg limits) of seven representative soil samples were determined. These data also provide indications of the susceptibility of the soils to volume changes with changes in moisture content. Some references (e.g. NAVFAC, DM-7, Department of the Navy, 1972) also correlate these data with the angle of internal friction, ϕ , of a soil, and with certain consolidation characteristics.

Table 2 contains the results of these Atterberg limits tests.

4.3 UNCONFINED COMPRESSION TESTS: Nine specimens of soil and rock were tested in unconfined compression to determine the shear strength parameter, c (unit cohesion), of those materials when ϕ (angle of friction) is assumed to be 0. This is a quick, relatively inexpensive test method for obtaining values of c .

Test results are shown in tabulated form in Table 3. The modulus of elasticity is included, which is a function of the stress-strain curve, dependent on the sample stress history, moisture content, density and other factors. These data are also used in slope stability analyses.

4.4 TRIAxIAL COMPRESSION TESTS: Three samples were subjected to lateral confining pressures before an axial load was applied. These triaxial tests (unconsolidated, undrained) require a high degree of specimen homogeneity before the data points may be combined to provide accurate values for both ϕ and c . In this case, the samples did not prove to be sufficiently homogeneous to provide such data, although ranges may be established for ϕ and c .

These test data are also found in Table 3.

4.5 DIRECT SHEAR TESTS: Three multi-stage direct shear tests were performed on jointed rock specimens to evaluate the shear strength parameters ϕ and c of the rock joints. In a rock slope stability analysis, these data provide parameters for a probable failure surface that would primarily follow existing joint patterns.

Test data are shown in Table 4, and more detailed direct shear test results are contained in Figures 18 through 20 of this report.

5.0 SLOPE STABILITY ANALYSIS

5.1 GENERAL: Recognized potential modes of slope instability consist of plane shear, wedge, circular, and toppling failures. Such failures are dependent upon many factors including the slope configuration, geologic discontinuities, and physical characteristics of the stratigraphic units.

Laboratory data and(or) stratigraphic information from exploratory borings, field reconnaissance, and field mapping were utilized to establish computer models or stereographic projections by which the stability of various cut slopes could be evaluated.

A computer program based on a limiting equilibrium analysis method (STABL, Siegel, 1977) was used to evaluate the two major Belina Mine slopes: the backslope above the upper portals, and the backslope above the office/changehouse. Stereographic projection techniques were used to evaluate the cut slope near the coal loadout chute and the major cuts along the haul road.

For the computer analysis the most important consideration is the selection of correct soil and rock shear strength parameters for each stratigraphic unit. For the backslopes, the worst-case unconfined compression test result of 8.5 psi was utilized for the colluvium/talus. A significant ϕ angle was estimated to be 18° from NAVFAC, DM-7. This ϕ value was used to calculate the value of c from the unconfined compressive strength test results. For the weathered siltstones, direct shear test results on jointed rock, along with unconfined compression tests of intact rock, were utilized to estimate the shear strength. Since rock joints were noticeably absent in the rock cores extracted in the drilling program, it was assumed that a potential failure surface would have to pass through some intact rock. Therefore, c was estimated to be a midrange value of 34.7 psi and ϕ was estimated to be 38° . Groundwater and earthquake factors were not assumed to be significant factors in the analyses. Moist unit weights were used for both soil and rock.

5.2 ANALYSIS OF BACKSLOPE ABOVE UPPER PORTALS: The computer-generated geologic models of the A-A' and B-B' sections are included in this report as Figures 21 and 22. The most critical failure paths passed through the colluvium and(or) talus interface with the underlying bedrock surface. For section A-A', the corresponding factor of safety against slope instability was 1.4. For section B-B' the factor of safety was 1.15 at the steepest portion of the slope, just below boring no. 2. Failure surfaces extending into bedrock materials had very high factors of safety, in excess of 2.5.

5.3 ANALYSIS OF BACKSLOPE ABOVE THE OFFICE/CHANGEHOUSE: Figure 23 presents the computer-generated geologic model of the C-C' section. As in the analysis for the adjacent backslope described above, the most critical failure path passed through the colluvium and(or) talus interface with the bedrock. The lowest factor of safety obtained was 1.9.

5.4 ANALYSIS OF THE CUT SLOPE NEAR THE COAL LOADOUT CHUTE: Stereographic projections are long recognized methods of presenting kinematic tests for various modes of slope instability. Using the cut slope log "B-7" and detail line data, stereographic projections were prepared for potential shear plane, wedge and toppling failures (Figures 24 through 26). The massive sandstone in this cut is extremely competent and joint orientations generally appear to be favorable. Only that portion of the cut slope striking S25°W shows a slight potential for failure in a toppling mode. However, the adjacent portion of the cut confines this potential toppling section, causing the entire slope to be safe.

5.5 ANALYSIS OF THE HAUL ROAD CUT SLOPES: The potential failure plane described between odometer mileage readings 0.14 to 0.17 on Figure 11 does not pass the kinematic test for stability because the slope face is 3° steeper than the 65° dip of the secondary joint set. Relatively minor quantities of rock are found above the daylighting joint set.

The colluvium/talus described between odometer mileage readings 0.69 to 0.72 on Figure 12 indicates that the colluvium/talus is cut in the steepest portion of the slope to an angle of about 65°. The thickness of this

stratum is not known, but a stable slope configuration should be flatter, as evidenced by the results of the Belina Mine Complex backslope analysis.

The potential failure surface described at the 0.86 odometer reading on Figure 12 is located on a "nose", or peninsula-like rock feature. This type of rock mass is the most susceptible to natural weathering processes, and it is likely that the potential failure surface is a naturally occurring phenomenon than a result of "blast damage." In any case, the potential failure surface does not pass the kinematic test for stability.

At odometer reading 0.92 on Figure 12, highly fractured rock may be cut to a slope that is slightly steeper than long-term stability would dictate. There is no laboratory data available to substantiate this possibility.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 GENERAL CONCLUSIONS: Slope stability analyses have indicated that the cut slopes in the area of mine facilities are, in general, stable. The steeper portion of the backslope above the upper portals, represented by section B-B', is the only backslope that does not meet the required 1.3 minimum factor of safety established by the State of Utah for cut slopes steeper than 2 horizontal to 1 vertical. It should be reiterated that this so-called "unstable" condition may not be related to mining operations and may rather be associated with natural geologic discontinuities.

The vertical 3-foot high section of coal above the massive sandstone exposed in the cut slope by the coal loadout chute is too steep, and will probably ravel or weather to an angle of about 34°.

For the most part, the haul road cuts were found to be stable. Four haul road cut slopes described in section 5.5 appear to be too steep for long-term stability, although the cut slope at the 0.86 odometer reading may have had the potential failure surface develop long before the haul road was constructed.

6.2 GENERAL RECOMMENDATIONS

6.2.1 BACKSLOPE ABOVE THE UPPER PORTALS: In the vicinity of boring no. 2 (section B-B') the steep portion of the slope should be excavated to a flatter configuration, perhaps 23°, which is the slope angle of the more stable section A-A'.

Positive surface drainage must be directed away from the slope face, and the slope should be smoothed and revegetated. Seepage water should be controlled, possibly by gravel-lined diversion ditches.

In lieu of the above-mentioned remedial actions, seasonal maintenance of slope or slide debris should be anticipated.

6.2.2 BACKSLOPE ABOVE THE OFFICE/CHANGEHOUSE: Some raveling may occur from the coal and siltstone strata, and maintenance provisions should be anticipated.

6.2.3 CUT SLOPE NEAR THE COAL LOADOUT CHUTE: The coal stratum above the massive sandstone should be flattened to a slope angle of about 34°. The gentler slope above the coal should be smoothed and revegetated to more properly control surface water runoff. A diversion ditch on the trail above the slope may further reduce the runoff erosion potential.

6.2.4 HAUL ROAD CUT SLOPES: Major cut slope failures on the haul road are not likely. More probably, natural weathering processes will remedy most of the stability problems over a period of years, during which time seasonal maintenance should be anticipated. However, flattening of the slopes identified in section 5.5 should alleviate much of the scheduled road maintenance. In any case, the identified slopes should be carefully observed with monthly regularity, and more often during the spring thaw period.

T A B L E S

Table 1
Moisture and Density Determinations

<u>Boring No.</u>	<u>Depth (ft.)</u>	<u>Sample No.</u>	<u>Moisture (% of dry wt)</u>	<u>Wet Density (PCF)</u>	<u>Dry Density (PCF)</u>
1	5.0-6.5	1-1*	18.7	146.6	123.5
1	11.5-11.8	1-3*	10.5	136.9	123.9
1	16.0-16.5	CORE	5.7	152.9	144.7
2	4.0-4.5	2-1	17.6	125.0	106.3
2	9.5-10.0	2-2	20.0	130.3	108.6
2	14.3-14.5	2-3	14.5	130.1	113.6
2	29.0-29.5	2-6	5.4	139.6	132.4
3	5.0-5.5	3-1	12.3	126.4	112.6
3	17.0-17.5	3-4	16.1	133.2	114.7
3	21.7-22.3	CORE	7.6	152.8	142.0
3	25.0-25.5	CORE	10.6	156.6	141.6
3	30.5-30.9	CORE	8.2	147.5	136.3
4	9.5-10.0	4-2	15.4	132.6	114.9

*Represents disturbed samples, and wet/dry density results may not be accurate.

Table 2
Atterberg Limits Test Data

<u>Boring No.</u>	<u>Depth (ft.)</u>	<u>Sample No.</u>	<u>Liquid Limit (%)</u>	<u>Plastic Limit (%)</u>	<u>Plasticity* Index (%)</u>	<u>Group Classification</u>
1	5.0-6.5	1-1	38	27	11	ML
2	4.0-4.5	2-1	28	19	9	CL
2	9.5-10.0	2-2	35	19	16	CL
2	14.3-14.5	2-3	35	20	15	CL
3	5.0-5.5	3-1	36	18	18	CL
3	17.0-17.5	3-3	31	19	12	CL
4	9.5-10.0	4-2	29	18	11	CL

*Liquid Limit - Plastic Limit = Plasticity Index

Table 3

Unconfined Compression Tests

<u>Boring No.</u>	<u>Depth (ft.)</u>	<u>Lithology</u>	<u>Density (pcf)</u>	<u>Compressive Strength (psi)</u>	<u>Young's Modulus (psi)</u>
1	16.0-16.5	SILTSTONE	152.9	68*	7.3×10^3
2	4.0-4.5	SANDY CLAY	125.0	8.5	-
2	9.5-10.0	SILTY CLAY	130.3	48	1.3×10^3
2	29.0-29.5	SILTSTONE	139.6	120	5.2×10^3
3	5.0-5.5	SILTY CLAY	126.4	42	2.2×10^3
3	17.0-17.5	SHALE	133.2	90 ¹	1.5×10^3
3	21.7-22.3	SHALE	152.8	428 ²	2.3×10^4
3	25.0-25.5	SHALE	156.6	130 ³	2.2×10^3
3	30.5-30.9	SHALE	147.5	61	1.1×10^3
3	59.6-60.0	COAL	76.8	1,540	1.3×10^5
4	9.5-10.0	SANDY CLAY	132.6	37	8.1×10^2
4	57.0-57.5	SANDSTONE	159.2	20,640	-

*Failure across healed fracture

¹Confining pressure of 20 psi (triaxial test - uu)

²Confining pressure of 50 psi (triaxial test - uu)

³Confining pressure of 80 psi (triaxial test - uu)

Table 4
Direct Shear Test Results*

<u>Boring No.</u>	<u>Depth (ft.)</u>	<u>Lithology</u>	<u>Type of Joint</u>	<u>Friction Angle, ϕ (degrees)</u>	<u>Unit Cohesion c (psi)</u>
3	49.7-50.2	SILTSTONE	70°, OPEN	25.6°	28.3
4	20.5-21.0	SHALE	0°, OPEN	22.3°	30.7
4	37.5-38.0	SILTSTONE	77°, OPEN	38.0°	15.5

*Shear strength parameters for each sample were determined by multi-stage tests, using five different normal stresses.

FIGURES



BORING LOG

Upper Portal Backslope

Boring Method: 6-in. continuous flight auger		Standard Penetration Test			Boring No. 1	
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler		140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler	Sheet 1 of 3	
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot			Date: 9-13-83	
Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9139.6	0	CL	<u>Silty Clay</u> : dark brown; 15-20% fine sand; very wet; medium plasticity; medium stiff. Some organics.			Location - N: 7,226.26 W: 10,102.57
9138.1	1.5	CL	(Topsoil zone)			
9136.1	3.5	CL	<u>Silty Clay</u> : dark yellowish-brown; 20% fine sand; wet to very wet; medium plasticity; medium stiff.			(on slope above ventilation fan)
			As above but mottled with dark grayish-brown and wet.			Hole cased to 13.5' with hollowstem auger.
9134.1	5.5	CL-CH & ML	<u>Silty Clay</u> : dark brownish-gray and dark gray; wet; medium to high plasticity; stiff. Some thin (1/8") coal seams, and zones of sandy silt.	SPT 1-1	3 4 7	N=11
9132.1	7.5	CH	<u>Silty Clay</u> : dark gray and gray; moist; high plasticity; very stiff.			
9130.1	9.5	CL	<u>Silty and sandy clay</u> : dark gray, yellowish brown, and brown; up to 25% fine sand; moist; low to medium plasticity; hard to very hard. Last 2-3" saturated from groundwater perched on sandstone stringer from 12.5 to 12.7'. (Weathered rock)	D&M 1-2 SPT 1-3	35 38 23 47	N=70 Groundwater @ 12.3' after 20 hours.
9126.1	13.5		<u>Shale and Siltstone</u> : silty and sandy clay; gray mottled with brownish-yellow; up to 25% fine sand; partings every 8"+; soft rock.	NX core Run #1		94% Recovery (diamond bit; bentonite and D7-E polymer)
9119.6	20					94% RQD (10 pieces)

Figure 2



**MORRISON
KNUDSEN Mining Group**

PROJECT
Valley Camp of Utah, Inc.
Belina Mine, Carbon County

Upper Portal Backslope

BORING LOG

Boring Method: 6-in continuous flight auger	Standard Penetration Test	Boring No. 1
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall
	2-in. o.d. Split-barrel Sampler	Sheet 2 of 3
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot
		Date: 9-13-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9119.6	20					
9113.3	20.3		As before (shale and siltstone)			56% Recovery (carbide bit; bentonite and D7-E; lost circulation at 21.5")
			Badly weathered sandstones and shales: brown and brownish yellow; very soft rock.	NX Core Run #2		0% RQD
						Added cellulose, nut shell and more bentonite to drilling water: began drilling w/ tricone bit at 23.9' lost circulation; continued drilling with hollowstem auger; tried tricone bit again at 29.0' and lost circulation immediately.
				D&M 1-4	72	
					in 3"	
9107.6	32		Zone of broken sandstone.			
9107.1	32.5	CL-ML	Shale and siltstone: silty clay; gray and dark gray; moist; low to medium plasticity; soft rock.			
				SPT 1-5	100	in 3" N=100+
9102.6	37		Possible sandstone			
9102.1	37.5	ML	Siltstone: sandy silt; dark brown and grayish brown; dry; slight plasticity; moderately soft rock.			
9099.6	40					

Figure 2a



**MORRISON
KNUDSEN Mining Group**

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County

BORING LOG

Upper Portal Backslope

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 1
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-13-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9099.6	40		As before (siltstone)	D&M 1-6	100	in 1"
9095.1	44.5		<u>Sandstone</u> (poor recovery with hollowstem auger): soft to moderately hard rock.			
9093.6	46		<u>Siltstone</u> , as before.			
9091.6	48		<u>Sandstone</u> : hard rock.			
9090.6	49		(Refusal of hollowstem auger with carbide teeth, using CME-750 rig)			

Figure 2b



MORRISON
KNUDSEN

Mining Group

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County

Upper Portal Backslope

BORING LOG

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 2
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-14-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9230.1	0	CL	Silty Clay: very dark brown; 15-20% fine sand; moist; medium plasticity; medium stiff.			Location - N: 7,561.28 W: 10,196.59 (Active slide area)
9227.6	2.5	CL	Sandy Clay: dark yellowish brown; some pieces of weathered sandstone (1/4" diameter).			
9226.6	3.5	CL	Sandy Clay: brownish yellow mottled with brownish gray; 20-25% fine sand; pieces of weathered sandstone; medium plasticity; soft to medium stiff.	D&M 2-1	5 9 10	(33% recovered)
9224.1	6	CL & CH	Silty Clay: gray and dark gray becoming dark brownish gray; some pieces of weathered sandstone; medium and high plasticity; very stiff to hard.			No groundwater 38 hours after drilling.
				D&M 2-2	7 13 19	
9218.8	11.3		Weathered sandstone			
9218.1	12	CL & CH	As before but more zones of weathered sandstone.			
				D&M 2-3	5 6 10	
9214.1	16		Weathered sandstone pieces.			
9213.1	17					
		CL, CH, & SM	Silty and sandy clay: brownish yellow; wet; 5-35% fine sand; low (sandy clay) & high (silty clay) plasticity; stiff. Zones of badly weathered sandstone (SM).			
9210.1	20			SPT 2-4	3 11	N=19
					8	

Figure 3



**MORRISON
KNUDSEN Mining Group**

PROJECT
Valley Camp of Utah, Inc.
Belina Mine, Carbon County

Upper Portal Backslope

BORING LOG

Boring Method: 6-in. continuous flight auger	Standard Penetration Test			Boring No. 2
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler	Sheet 2 of 3
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot		Date: 9-14-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9210.1	20	CL, CH, &SM	As before (silty and sandy clay with badly weathered sandstone)			
9206.1	24		Siltstone or sandstone: moderately hard rock; possible talus (no samples).			
9204.6	25.5	CL, CH, SM	As before with thin seams of siltstone	SPT	9	
9203.6	26.5			2-5	10	
					50	in 5" N=60+
			Weathered siltstone: sandy silt; gray; moist; 15-20% fine sand; soft to moderately hard rock.			
				D&M	16	
				2-6	29	
					40	
9197.6	32.5		As above but moderately hard to hard rock (harder than above)			
9194.6	35.5	SM& ML	Badly weathered siltstone & sandstone: brownish yellow and yellowish gray; wet; very soft rock.			
				SPT	39	
				2-7	18	N=64
					46	
9191.1	39		Siltstone or sandstone: moderately hard rock (no recovery).			

Figure 3a



MORRISON
KNUDSEN **Mining Group**

BORING LOG

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County

Upper Portal Backslope

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 2
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-14-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9190.1	40		As before.			
9189.6	40.5		<u>Weathered siltstone:</u> sandy silt; gray; moist; soft to moderately hard rock.	D&M 2-8	100 in 2"	Hollowstem auger used as casing at 44.0'; tried to hold water head with bentonite and cellulose to see if coring was possible; lost head of water within 30 seconds.
9182.1	48		<u>Weathered siltstone:</u> as above but mottled with yellowish brown and yellowish gray; somewhat harder.	SPT 2-9	50 in 2" N=50+	
9175.8	54.3		End of Boring	SPT 2-10	100 in 3.5" N=100+	

Figure 3b



**MORRISON
KNUDSEN Mining Group**

PROJECT
Valley Camp of Utah, Inc.
Belina Mine, Carbon County

Upper Portal Backslope

BORING LOG

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 3
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-15-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9129.3	0	CL	<u>Silty Clay</u> : dark brown to brown; 15 to 20% fine sand; moist; low to medium plasticity; organics upper 12".			Location - N: 7,786.38 W: 9,745.67 (on slope above changehouse)
9125.8	3.5	CL&CH w/ SM	<u>Silty/sandy clay with sandstone</u> : grayish brown; zones of hard weathered sand compose ≈ 20% of stratum; wet; medium and high plasticity; up to 30% fine sand in zones of sandy clay; very stiff to hard.	D&M 3-1	14 21 25	Hollowstem auger set as casing at 18.5'
9121.3	8	CL, SM &ML	<u>Badly weathered siltstone&sandstone</u> : sandy clay matrix with pieces of moderately soft rock; brownish yellow and brownish gray.			No groundwater data - hole plugged at 18' 24 hours after drilling.
9118.8	10.5		<u>Weathered siltstone</u> : gray; moist; moderately soft rock.	SPT 3-2	8 23 19	N=42
9117.3	12	CL	<u>Silty Clay</u> : brownish yellow; wet; low to medium plasticity; stiff. Zones of claystone ≈ 3-4" thick; hard.			
9113.8	15.5	CL- CH	<u>Weathered shale</u> : brownish yellow becoming gray at 17.5'; moist; medium to high plasticity; very soft to soft rock.	SPT 3-3	7 11 19	N=30
				D&M 3-4	25 29 23	in 2"
9109.3	20			NX Core Run#1		See following page for core data

Figure 4



BORING LOG

Upper Portal Backslope

Boring Method: 6-in continuous flight auger	Standard Penetration Test		Boring No. 3
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Sheet 2 of 3
			Date: 9-15-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9109.3	20					
9108.8	20.5	CL-CH	As before			
			<u>Weathered shale:</u> gray and brownish yellow; some interbedded sandstone strata ≈ 1-2" thick; partings at 2-3"; soft rock. Joints: 20.5', moderately smooth, open, 10° dip; 21.7-22.3', closed 90° dip; 23.1-23.2' moderately smooth; 30° dip.	Cont. NX Core Run #1		97% Recovery 12% RQD (1 piece) (Carbide bit; "unlimited" water supply by siphon from 12,000 gal. potable water storage tank; water did not recirculate
9105.3	24		<u>Sandstone:</u> brownish yellow; moderately hard rock. Joints: 24.2-24.4' moderately rough, open, 80° dip; 24.6-24.7' moderately smooth, 45&60°; 24.7'24.9', open, moderately smooth, 90° dip.			
9104.4	24.9					
9103.5	25.8		<u>Weathered shale:</u> gray and brownish yellow; moist; soft rock.	NX Core Run #2		52% Recovery 15% RQD (1 piece)
9101.3	28		<u>Badly weathered sandstone & shale:</u> brownish yellow and gray; partings every ½ to 2". Joints: 26.0', open, rough, 75° dip.			
			Lost sample: very soft rock.			
9099.3	30		<u>Weathered shale, siltstone&sandstone:</u> gray and brownish yellow; soft rock partings ½-3".	NX Core Run #3		78% Recovery 14% RQD (2 pieces)
9096.3	33					
9095.3	34		<u>Sandstone:</u> brownish yellow; hard; thin-bedded (1.5-3").			
			<u>Weathered shale and siltstone:</u> gray and brownish yellow; soft rock; partings ½ to 2". Joints: 39.2', closed, 90°.	NX Core Run #4		87% Recovery 0% RQD
				NX Core Run #5		80% Recovery 23% RQD (2 pieces)
9089.8	39.5		As below			



**MORRISON
KNUDSEN Mining Group**

PROJECT
Valley Camp of Utah, Inc.
Belina Mine, Carbon County

Upper Portal Backslope

BORING LOG

Boring Method: 6-in. continuous flight auger	Standard Penetration Test			Boring No. 3
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler	Sheet 3 of 3
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot		Date: 9-15-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9089.3	40		<u>Weathered shale:</u> gray and brownish yellow; soft rock. Joints: 40.7 & 41.3', open, rough, 20° dip. Partings every 2 to 12".	Cont. NX Core Run #5		As before
9083.8	45.5		<u>Siltstone:</u> gray and brownish yellow; moist; moderately hard rock. Joints: 48.5', open, rough, 0°; 49.5-49.8', 3 pieces, rough, 70°; 50.0', open, moderately smooth, 20°. Partings every 2 to 7".	NX Core Run #6		100% Recovery 46% RQD (8 pieces)
9078.3	51		Very soft weathered shale			
9077.3	52		<u>Coal:</u> thin bedded, moderately soft. Partings every 1 to 3"; highly fractured from 55.5' to 56.5'.	NX Core Run #7		82% Recovery 0% RQD
9068.3	61		End of Boring			



BORING LOG

Upper Portal Backslope

Boring Method: 6-in. continuous flight auger		Standard Penetration Test		Boring No. 4
Undisturbed Soil Sampler: 3-in. od. DBM sampler		140-lb. Hammer	30-in. Fall	2-in. od. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot		Date: 9-16-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9176.1	0	CL	<u>Fill</u> : silty and sandy clays; dark gray and dark grayish brown; medium stiff.			Location - N: 8,031.57 W: 9,605.70 (on jeep trail east of potable water tank)
9174.6	1.5	CL	<u>Sandy Clay</u> : dark brown to brown; 25-30% fine sand; moist; low plasticity; stiff.			
9171.6	4.5	SM	<u>Sandstone cobble</u> : top 6" badly weathered.	SPT 4-1	32 45	N=50+
9169.6	6.5	CL	<u>Silty Clay</u> : brownish yellow; 15-20% fine sand; wet; medium plasticity; stiff.			No groundwater 24 hrs. after drilling
9168.1	8	SM	<u>Silty Sand</u> : brownish yellow; 40-45% nonplastic fines; moist; dense (badly weathered sandstone cobble).			
9167.1	9	CL, ML, & SM	<u>Silty/sandy clay, sandy silt, and silty sand</u> : hard soil colluvium with pieces of rock.	D&M 4-2	16 25 50	in 2"
9165.6	10.5	ML	<u>Weathered siltstone cobble</u> : brownish gray; moderately soft rock.			
9164.6	11.5		<u>Weathered siltstone with some sandstone</u> : gray mottled with brownish gray and brownish yellow; soft rock.			
9160.1	16		<u>Weathered shale & sandstone</u> : brownish yellow and gray w/ brownish red; highly fractured; moderately hard rock. Joints(all open): 17.5-17.7', moderately smooth, 80°; 18.3-18.4', moderately rough, 90°, 19.1-19.3', moderately smooth, 20°&90°; (4 pieces).	SPT 4-3	34 50	in 5" N=80+
9156.6	19.5		As below	NX Core Run #1		89% Recovery 34% RQD (4 pieces between 19.5' & 25')

Figure 5



**MORRISON
KNUDSEN Mining Group**

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County

BORING LOG

Upper Portal Backslope

Boring Method: 6-in. continuous flight auger		Standard Penetration Test			Boring No. 4	
Undisturbed Soil Sampler: 3-in. ad. DBM sampler		140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler	Sheet 2 of 3	
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot			Date: 9-16-83	
Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9156.1	20		<u>Weathered shale:</u> gray, brownish gray, very dark gray and very dark grayish brown; moist; medium and high plasticity; zones of siltstone; soft rock. 2" thick highly fractured sandstone at 20.8'. Partings every 2 to 9".	Cont. NX Core Run #1		As before
9151.9	24.2		<u>Siltstone:</u> gray; moderately hard rock.			
9151.1	25		<u>Sandstone:</u> brownish yellow, gray and yellowish red; thin shale seams (1/8"); highly fractured in part; parts moderately hard.	NX Core Run #2		96% Recovery 9% RQD (1 piece, below 27')
9149.7	26.4		<u>Badly weathered shale & siltstone:</u> gray mottled with brownish yellow; highly fractured in part; very soft rock. Partings every 1/2 to 3" (some coal in partings). Joint: 29.6-29.8', open, smooth, 90°.			
9143.9	32.2		<u>Siltstone:</u> yellowish gray mottled with brownish yellow; up to 35% fine sand; moderately hard rock. Partings every 2-8" with leaf fossils. Parting with slickensides at 34': variable dip of partings above 34', 20° dip below 34'.	NX Core Run #3		100% Recovery 39% RQD (8 pieces, between 33 & 38')
9138.1	38		<u>Weathered siltstone:</u> dark gray and gray mottled with brownish yellow; many multi-piece irregular joints; cont....			
9136.1	40					

Figure 5a



**MORRISON
KNUDSEN Mining Group**

PROJECT
Valley Camp of Utah, Inc.
Belina Mine, Carbon County

BORING LOG

Upper Portal Backslope

Boring Method: 6-in. continuous flight auger	Standard Penetration Test			Boring No. 4
Undisturbed Soil Sampler: 3-in. o.d. DBM sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler	Sheet 3 of 3
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot		Date: 9-16-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9136.1	40		<u>Weathered siltstone, cont..</u> soft rock with zones of very soft rock. Partings every ½ to 3". Joints: 39.5-39.6', open, irregular, moderately smooth, 70-90° dip, 4 pieces.			
9133.1	43		<u>Siltstone:</u> yellowish gray; moderately hard rock. Partings every 2 to 5".	NX Core Run #4		95% Recovery 32% RQD (7 pieces, between 43-44' & 45-50')
9132.1	44	ML	<u>Badly weathered siltstone:</u> yellowish brown; weathered to soil in part; very soft rock. Partings every ½ to 2".			
9131.1	45		<u>Weathered siltstone:</u> yellowish brown and gray; badly fractured from 47.5 to 48.0 and 49.0-49.4'. Partings every 2-10".			
9126.7	49.4		<u>Claystone:</u> dark gray; hard rock.			
9124.4	51.7			NX Core Run #5		100% Recovery 50% RQD (5 pieces)
9124.3	51.8		<u>Weathered clay parting</u> <u>Siltstone:</u> gray and brownish yellow; moderately hard rock becoming softer. Partings generally every 2-3".			
9120.4	55.7		<u>Siltstone:</u> brownish yellow; zones of fine sandstone, badly fractured from 59.5 to 60.0'. Partings every 2-12". Joint: 57.5-57.8', open, rough, 60°, 4 pieces.			
911.61	60		End of Boring			



**MORRISON
KNUDSEN Mining Group**

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County
Boring to Sample Fill on Pad

BORING LOG

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 5
Undisturbed Soil Sampler: 3-in. o.d. DBM sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-17-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
8923.3	0	CL	<u>Fill:</u> silty clay with coal; very dark grayish brown.	1		Location - N: 7526.24 W: 9092.96 Purpose of hole was to obtain bag samples at 2.5' intervals for testing by Valley Camp to determine potential use of the fill for reclamation. Boring log is necessarily rough because of variations within the fill. No groundwater 24 hours after drilling.
8921.3	2	SM w/ CL	<u>Fill:</u> silty sand with silty clay; brownish yellow.	2		
8917.3	6	CL	<u>Fill:</u> sandy clay; dark yellowish brown.	3		
8916.3	7	SM& CL	<u>Fill:</u> pieces of sandstone and sandy clay; brownish yellow.	4		
8912.3	11	CL	<u>Fill:</u> silty clay; dark yellowish brown.	5		
				6		
8908.3	15	CL	<u>Fill:</u> silty and sandy clay with pieces of wood and roots; very dark grayish brown.	7		
				8		
8903.3	20					

Figure 6



**MORRISON
KNUDSEN Mining Group**

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County
Boring to Sample Fill on Pad

BORING LOG

Boring Method: 6-in. continuous flight auger		Standard Penetration Test		Boring No. 5
Undisturbed Soil Sampler: 3-in. o.d. DBM sampler		140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot		Date: 9-17-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
8903.3	20		As before	9		
8901.3	22	CL w/ coal	<u>Fill:</u> silty clay with coal and coal tailings; very dark grayish brown.	10		
8897.3	26	CL	<u>Fill:</u> sandy clay; very dark grayish brown.	11		
				12		
8893.3	30					

Figure 6a



**MORRISON
KNUDSEN Mining Group**

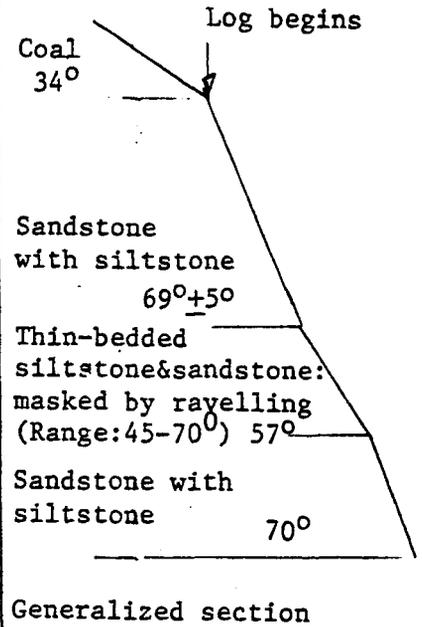
LOG OF CUT SLOPE

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County
Composite Log of Cut Slope
Behind Changehouse

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 6
Undisturbed Soil Sampler: 3-in. o.d. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-17-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9042*	0		Sandstone: hard; fractured in part.			Composite log of cut slope behind the changehouse, at the center of the building. Depths shown in log are <u>estimated</u> only, from the base of the coal stratum.
9040.5	1.5		Siltstone			
9039.5	2.5		Sandstone: hard; joints strike N80W with dip 70-90°N.			
9038	4		Siltstone			
9037.5	4.5		Sandstone: hard, as before.			
9036	6		Shale and siltstone: hard.			
9034.5	7.5		Sandstone: as before, but secondary joint system strikes N20E and dips 80°E.			
9033	9		Alternating zones of sandstone and siltstone.			
9030	12					
9029.5	12.5		Coal			
9028.5	13.5		Sandstone: hard, as before.			
			Siltstone: thin-bedded (½ to 2"); soft rock. Source of erosion, ravelling, and undercut.			
9025	17					
9022	20		Sandstone and siltstone: 1-6" thick bedding; joints strike N10E, dipping 85°E.			



*Elevation estimated from topographic map
601

Figure 7



**MORRISON
KNUDSEN Mining Group**

LOG OF CUT SLOPE

PROJECT

Valley Camp of Utah, Inc.
Belina Mine, Carbon County
Composite Log of Cut Slope
Behind Changehouse

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 6
Undisturbed Soil Sampler: 3-in. o.d. DBM sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-17-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
9022	20		Sandstone with some siltstone: massive in part (bedding 1-3" thick, and up to 24" thick); primary joints strike N10E, dipping 85°E; secondary joints strike E-W with dip 85°N. The 24" thick bedding is actually very tight thin-bedded sandstone.			
9016	26		Bottom of slope cut			

Figure 7a



**MORRISON
KNUDSEN Mining Group**

LOG OF CUT SLOPE

PROJECT
Valley Camp of Utah, Inc.
Belina Mine, Carbon County
Composite Log of Cut Slope
East of Loadout Chute

Boring Method: 6-in. continuous flight auger	Standard Penetration Test		Boring No. 7
Undisturbed Soil Sampler: 3-in. ad. D&M sampler	140-lb. Hammer	30-in. Fall	2-in. o.d. Split-barrel Sampler
w=Moisture Content, %	D=Dry Density, pcf	Penetration Resistance: N=Blows per foot	Date: 9-17-83

Elevation	Depth	Group Symbol	Description of Materials	Sample No.	Blows	Remarks
8949*	0		<u>Coal</u> : cut almost vertically, raveling in light wind.			Composite log of vertical cut slope (at the center of the cut) near the coal loadout chute. Depths shown in log are <u>estimated</u> only, from the top of the "vertical" section.
8947	2		<u>Weathered shale</u> : dark yellowish brown.			
8945.5	3.5		<u>Sandstone</u> : massive; hard rock; yellowish brown.			
8938 8937.8	11 11.2		Bedding plane filled with weathered sandstone.			Log of cut was made at point D1 of the first detail line (see boring location plan).
			<u>Sandstone</u> : massive, as before.			
8924	25		Base of cut			

*Elevation estimated from topographic map

Figure 8

TA SHEET FOR DETAIL LINE MAPPING

LINE NO. D1 TREND S55°W PLUNGE 0° ELEV. 8929 LOCATION Belina DATE 9-17-83

LINE INTERCEPT (ft.)	ROCK TYPE	STRUCTURE			GEOMETRY							WIDTH ()	FILLING	W	REMARKS	
		TYPE	STK	DIP	MD	P	LENGTH	± OVERLAP	T _L	T _U	R					
D1 (NE end)																
0		SJ	S60W	90		PL	5'				R	N	SM			
5		SJ	S25W	84E		PL	4'				N	R	SM	1.5"	Clay	
9	BY OVERLAIN SANDSTONE (LOWER COAL STRATUM)	SJ	W	75N		WV	2"				R	N	RH			
11		SJ	S65W	80E		PL	14'				N	N	SM			
25		SJ	S	90		PL	3'				N	R	SM			
28		SJ	W	83N		PL	16'				N	N	SM	becoming RH		
39		SJ	-	58E		--	--				R	R	--			
44		SJ	S15W	87W		PL	1'				N	R	SM			
45		BLAST DAMAGED JOINT														
45.5		SJ	S35W	86E		WV	1.5'				N	R	RH			
47		BLAST DAMAGED MASSIVE ROCK TO 62'														
62		SJ	S75W	54S		PL	2'				R	N	SM			
63	BLAST DAMAGED MASSIVE ROCK TO 83'															
83	SJ	S	84E		PL	2'				N	R	SM				
85	BLAST DAMAGED MASSIVE ROCK TO 90'															
90 (D1', SW End:	at a point 14' NE of C of loadout chute drive, perpendicular to C)															

Figure 9

ROCK TYPE ABBREVIATIONS				STRUCTURE TYPE				GEOMETRY					
				SJ	SINGLE JOINT			MD = MINIMUM DIP					
				FT	FAULT			P = PLANARITY: PL, WV R = ROUGHNESS: SM, RH					
				CT	CONTACT			T _L , T _U = TERMINATIONS					
WATER: D = DRY, W = WET, F = FLOWING								H	>20°		R	IN ROCK	
FILLING ABBREVIATIONS								L	<20°		N	NONE	
N	NONE									E	ENECHOLON		

TA SHEET FOR DETAIL LINE MAPPING

LINE NO. D2 TREND S25°W PLUNGE 0° ELEV. 8929 LOCATION Belina DATE 9-17-83

LINE INTERCEPT (ft.)	ROCK TYPE	STRUCTURE			GEOMETRY							WIDTH ()	FILLING	W	REMARKS	
		TYPE	STK	DIP	MD	P	LENGTH	± OVERLAP	T _L	T _U	R					
D2 (N end)																
0	SANDSTONE, AS BEFORE ON D1	SJ	--	70N		PL	--				N	R	SM			
0		SJ	S25W	76W		PL	21'				N	N	SM			
21		SJ	N85E	73S		PL	--				N	R	SM	1.5"	Open	
21		SJ	S20W	80W		PL	7'				N	N	SM			
28		SJ	E	78S		WV	1'				N	R	SM	12"	Clay	
29		SJ	S15W	83E		PL	23'				N	R	SM			
51							BLAST DAMAGED FACE 2' LONG									
52		SJ	S15W	75E		PL	8'				N	R	SM			
60 (D2', S End;							at a point 10' from D1 on the same slope)									

Figure 10

ROCK TYPE ABBREVIATIONS				STRUCTURE TYPE				GEOMETRY					
				SJ	SINGLE JOINT			MD = MINIMUM DIP					
				FT	FAULT			P = PLANARITY: PL, WV R = ROUGHNESS: SM, RH					
				CT	CONTACT			T _L , T _U = TERMINATIONS					
WATER: D = DRY, W = WET, F = FLOWING								H	>20°	R	IN ROCK		
FILLING ABBREVIATIONS								L	<20°	N	NONE		
N	NONE									E	ENECHOLON		

Geotechnical Mileage Log of Cut Slopes
 Valley Camp of Utah, Inc.
 Belina Mine Haul Road
 Section 19, R7E, T13S, Carbon County, Utah

<u>Odometer Mileage</u>	<u>Description</u>
0.0	Road begins on north side of Eccles Canyon.
0.14-0.17	*Evidence of movement along secondary joint set on 20-25' high 68° cut slope. Secondary set strikes E-W with dip to N @ 65° (Primary N-S + 10°, dip to E @ 75-90°) Strike of slope S53°E at this point. Bedding dips into slope (SW dip direction & 4° dip)
0.21	40' high cut (above slide area) with 65° slope angle. Upper portion has some overhanging rock, and cobble zone at top will produce some rockfall. Primary joints strike N-S + 10°, dip to E 75-90° Secondary joints strike E-W + 10°, dip to N 70-90° Bedding dips into slope
0.32	Same cut as above, but 30' high "nose" with weathered sandstone and siltstone cut at 45° to depth of 10', and competent sandstone cut to 60°. Primary joints of competent sandstone strike N10°W to N20°E, dip 72-78°E Secondary joints strike E-W + 10°, dip N 60-65°. Bedding dips into slope
0.37	Center of 20' high 45-50° cut in competent sandstones.
0.42	10' high "nose" (with same joint sets as described below at mile 0.52) will weather/ravel to smoother slope.
0.44	Beginning of cut described at mile 0.52.
0.52	Center of 70°, 25' high (500' + long) cut with 6' weathered rock on top of competent sandstone and siltstone. Parts of weathered rock section may be cut too steep, but natural weathering will remedy. Primary joints of sandstone strike N3°W, dip 84°E Secondary joints strike N80°W with dip 90° + 5° Bedding dip is into the slope.

*Indicates areas that may require regular maintenance and (or) remedial work.

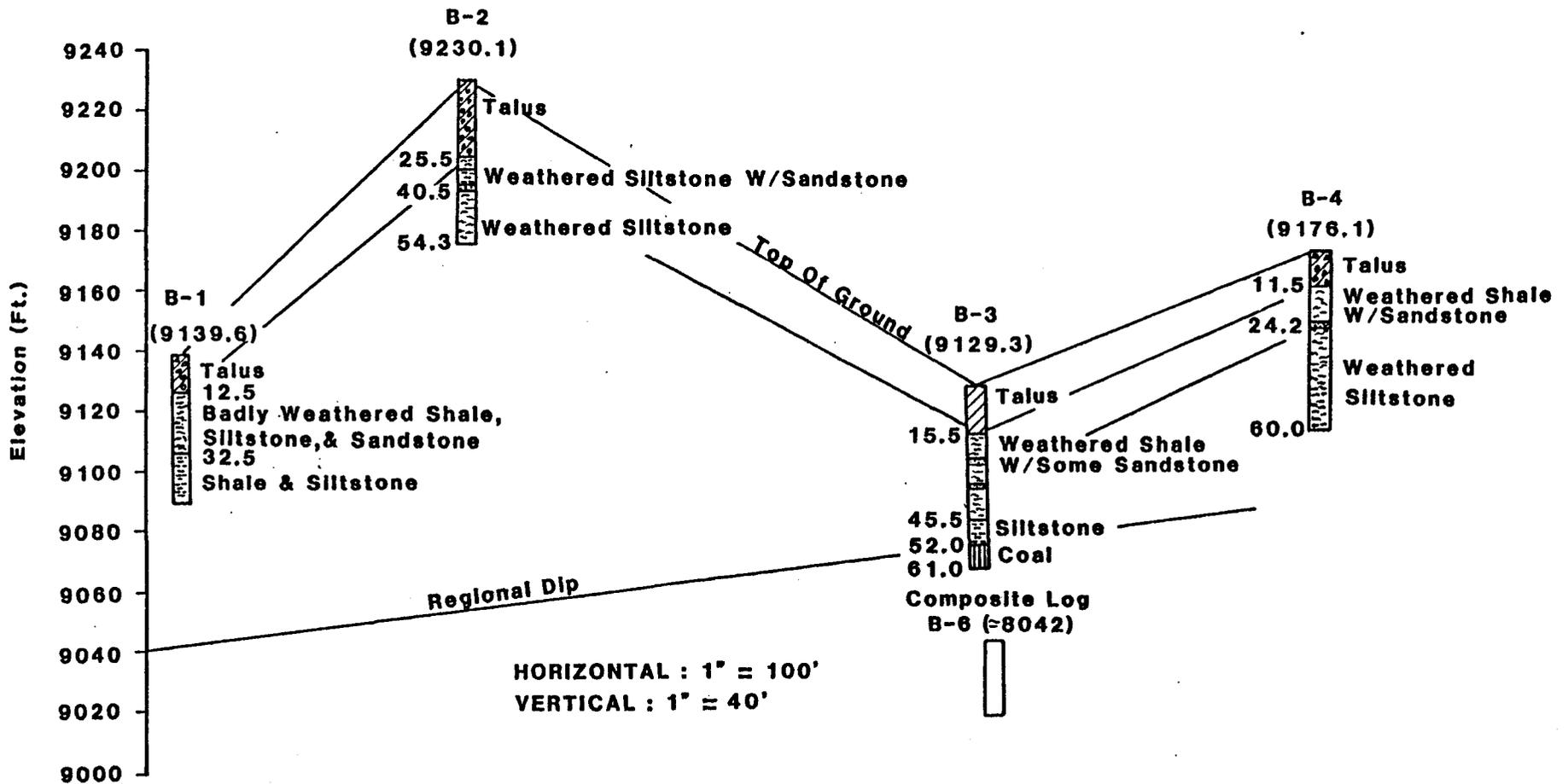
Geotechnical Mileage Log of Cut Slopes, cont.

<u>Odometer Mileage</u>	<u>Description</u>
0.57	Drainageway
0.61	65°, 12' high cut in competent rock with dip into the slope.
0.69-0.72	*25' high cut in possible colluvium/talus on 65° slope with concave face. May be a potential slide area: top of slope could be flattened but revegetation would be essential.
0.74	Major drainageway
0.86	*Possible blast damaged "nose" rock section. 15' high that may creep on an open, potential failure surface (which might continue beneath the road section) with a strike of S60°W and a dip of 42°E.
0.87	20' high cut in very competent sandstone. Strike of cut parallels primary joint set (N-S + 5° with dip of 82°E). Secondary set strikes E-W with 90° dip.
0.92	*Possible fault? Rock is highly fractured in 40-45°, 20' high cut. Evidence of soil creep and erosion. Soil cover will continue moving (perhaps 3-4' thickness)
0.97	Heavy soil cover on slope described at mile 1.02, but some competent rock strata still visible. Cut is 48°.
1.02	20' high, 60° cut in rock composed of sandstones and siltstones with 1-8" thick bedding. Most of cut is perpendicular to SW dip direction.
1.06	Drainageway
1.07	15' high, 55° cut in competent rock.
1.12	15' cut with weathered rock (top 5') over competent rock with dip into the slope.
1.23	Some ravelling evident at beginning of slope described at mile 1.32.

*Indicates areas that may require maintenance and (or) remedial work.

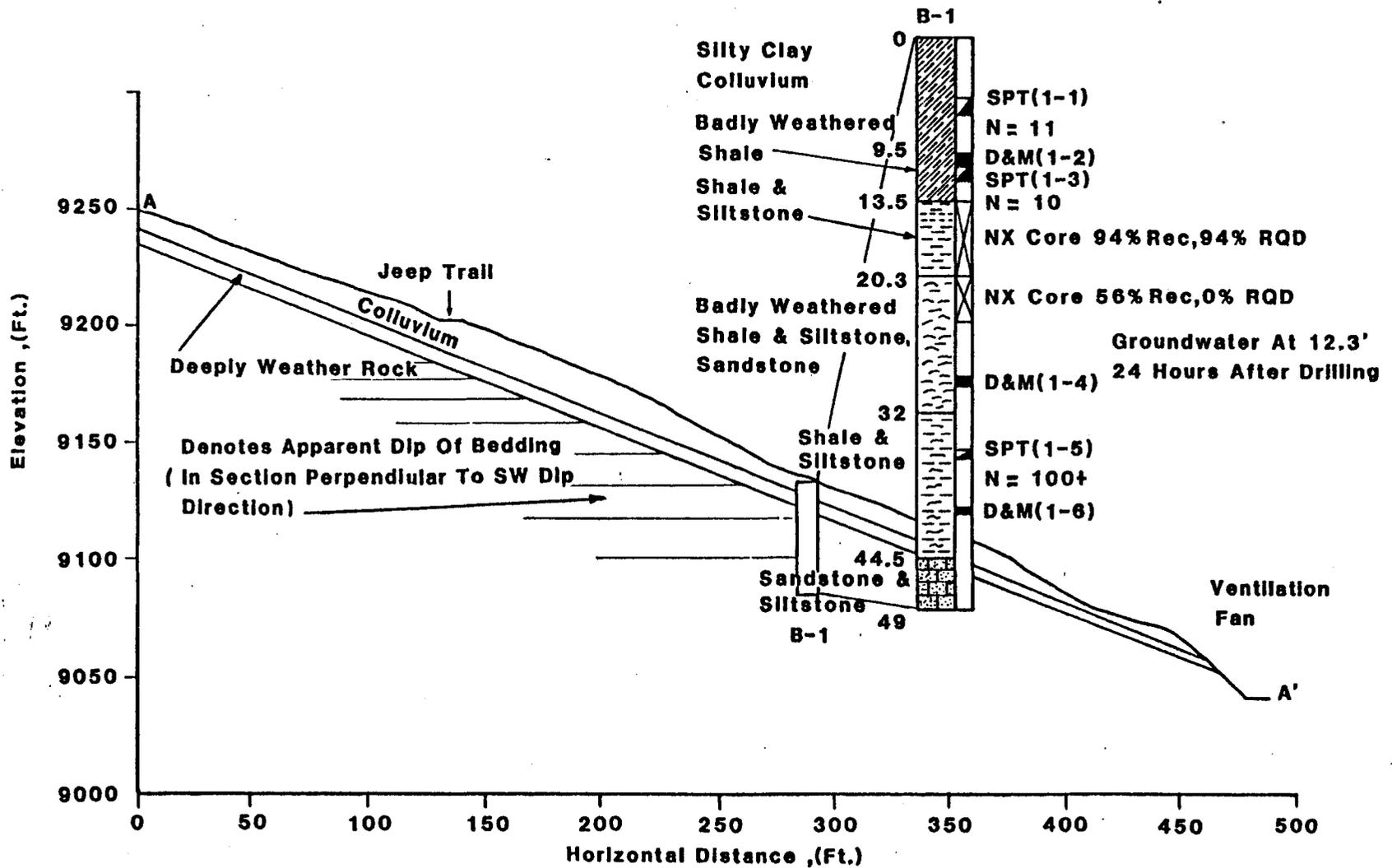
Geotechnical Mileage Log of Cut Slopes, cont.

<u>Odometer Mileage</u>	<u>Description</u>
1.32	15' cut, 42° in weathered rock (top 6') and competent rock with dip into slope. Some ravelling will occur from the top of the cut. At mile 1.28, primary joint set strikes N10°E with dip of 85°E.
1.40	20' high cut, 35° in weathered rock, 55° in competent rock (sandstone/siltstone) with primary joint set striking parallel to the haul road (~N-S) dipping at 85°E.
1.42	Fork in haul road leading to upper and lower portals of the Belina mine.

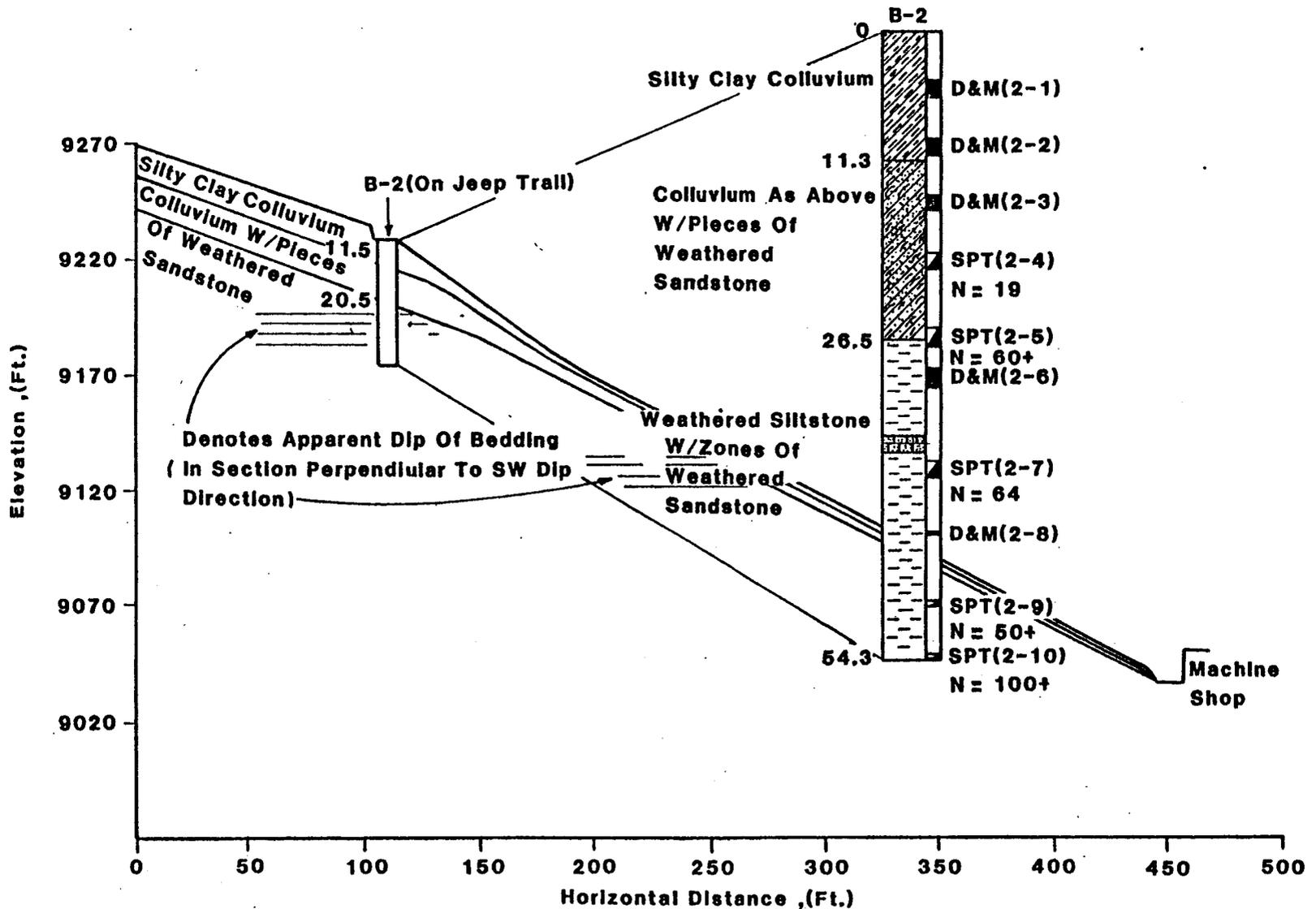


**VALLEY CAMP OF UTAH, INC.
 BELINA MINE, CARBON COUNTY
 GENERALIZED BACKSLOPE SECTION**

FIGURE 14



VALLEY CAMP OF UTAH, INC.
 BELINA MINE, CARBON COUNTY
 UPPER PORTAL BACKSLOPE SECTION A - A'
FIGURE 15

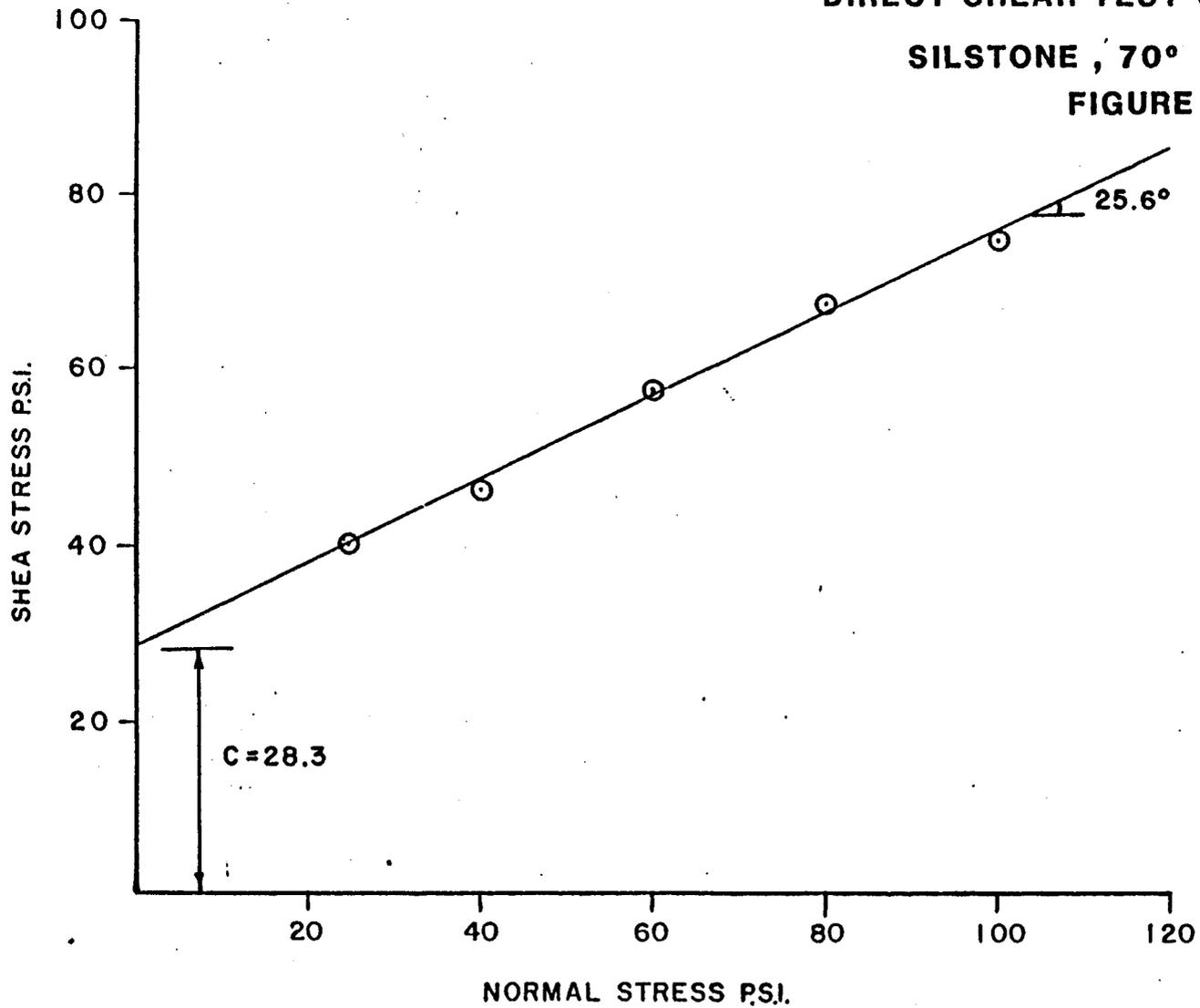


VALLEY CAMP OF UTAH, INC.
 BELINA MINE, CARBON COUNTY
 UPPER PORTAL BACKSLOPE SECTION B - B'
 (ACTIVE SLIDE AREA)
 FIGURE 16

VALLEY CAMP OF UTAH, INC.
BELINE MINE

BORING NO. 3
DEPTH 49.7'-50.2'

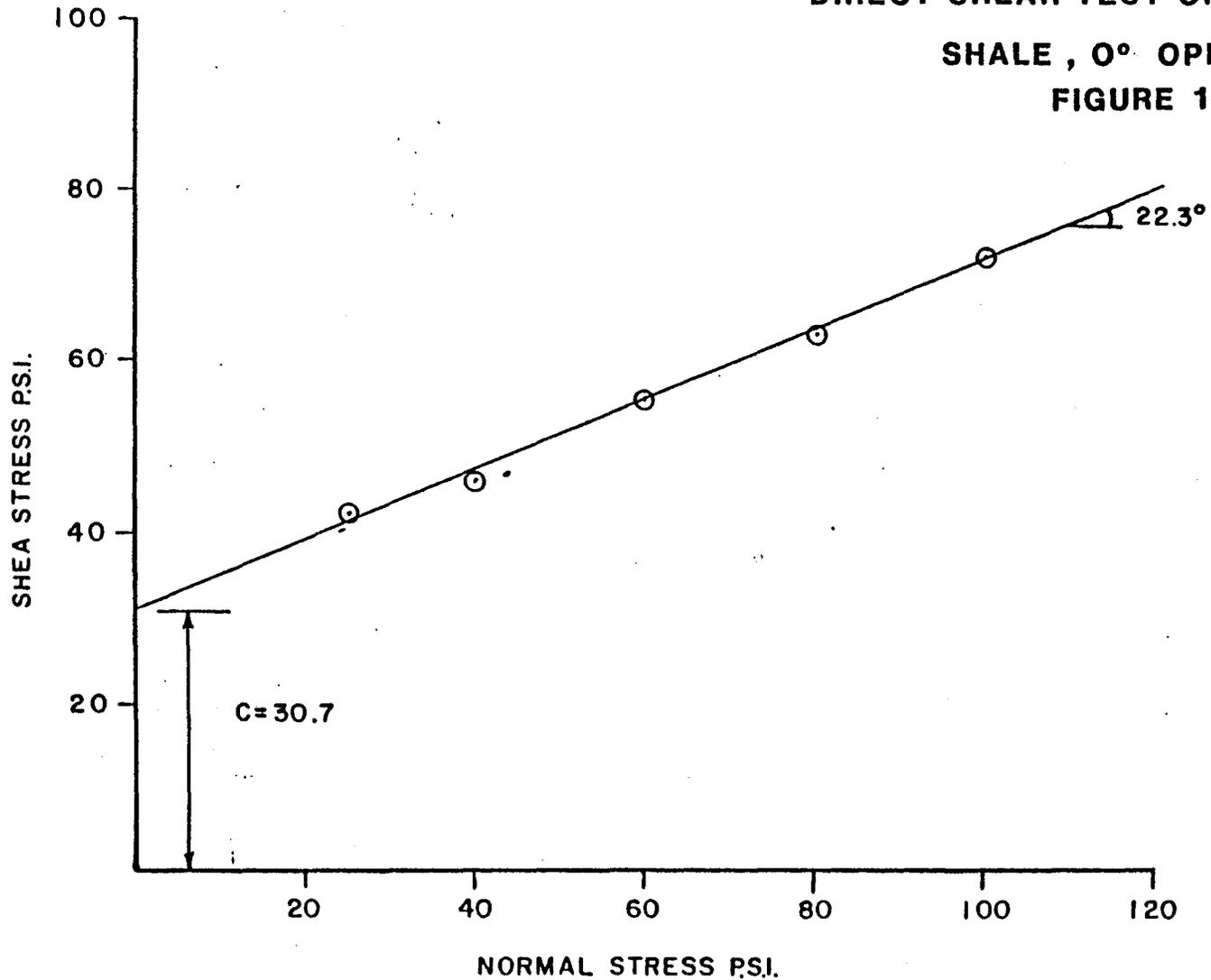
DIRECT SHEAR TEST ON DISCONTIUIITY :
SILSTONE, 70° OPEN JOINT.
FIGURE 18

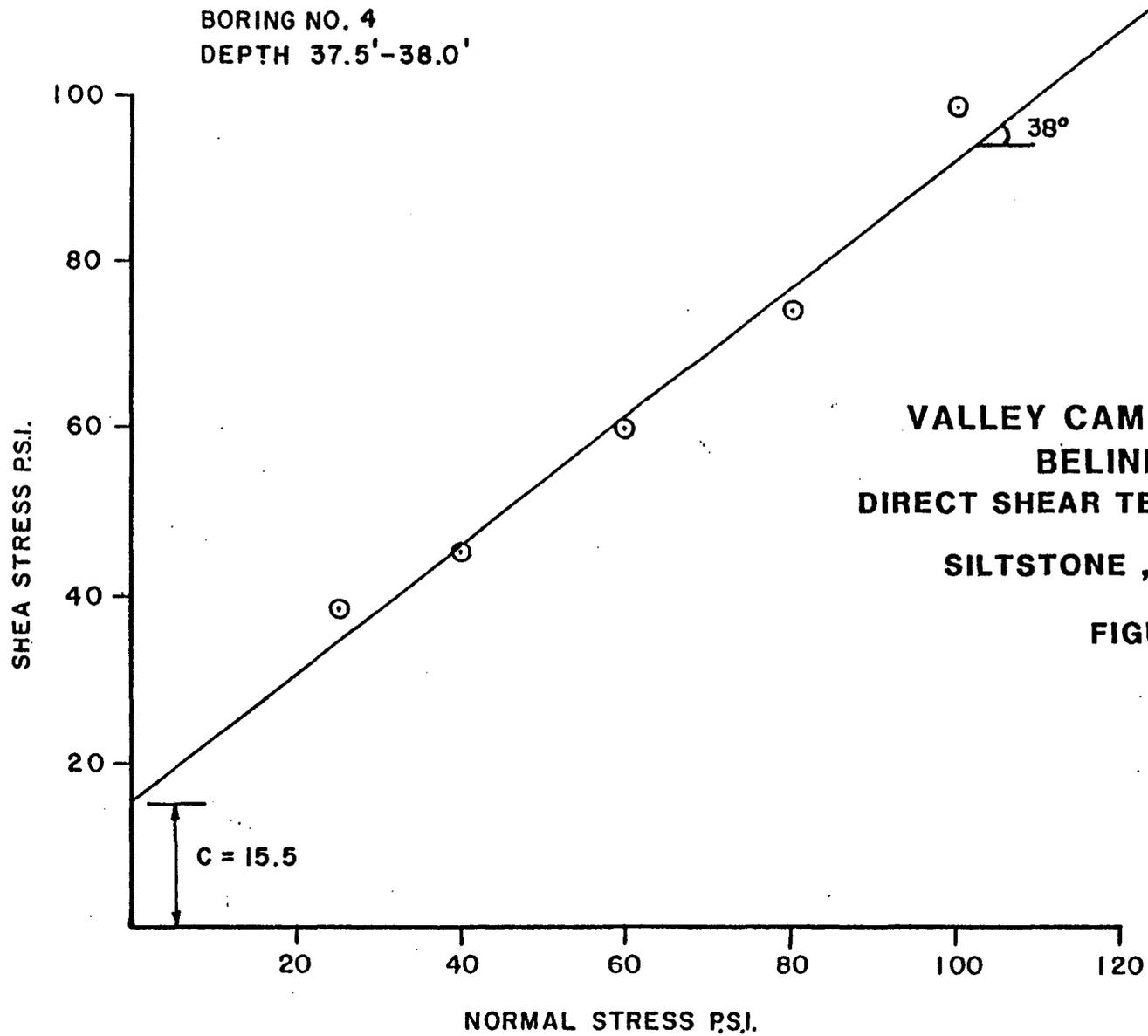


VALLEY CAMP OF UTAH, INC.
BELINE MINE

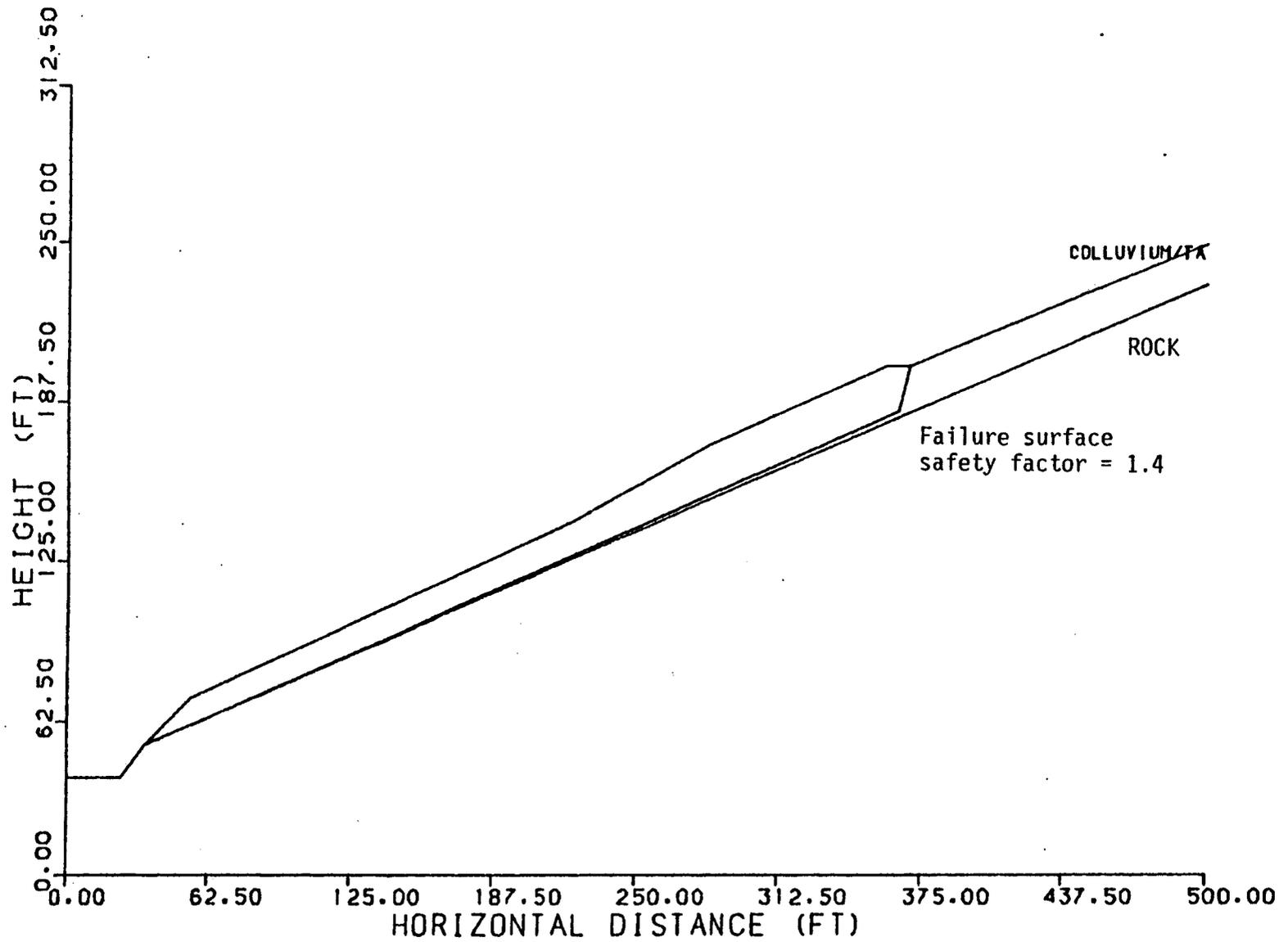
BORING NO. 4
DEPTH 20.5'-50.2'

DIRECT SHEAR TEST ON DISCONTIUIITY :
SHALE, 0° OPEN JOINT
FIGURE 19



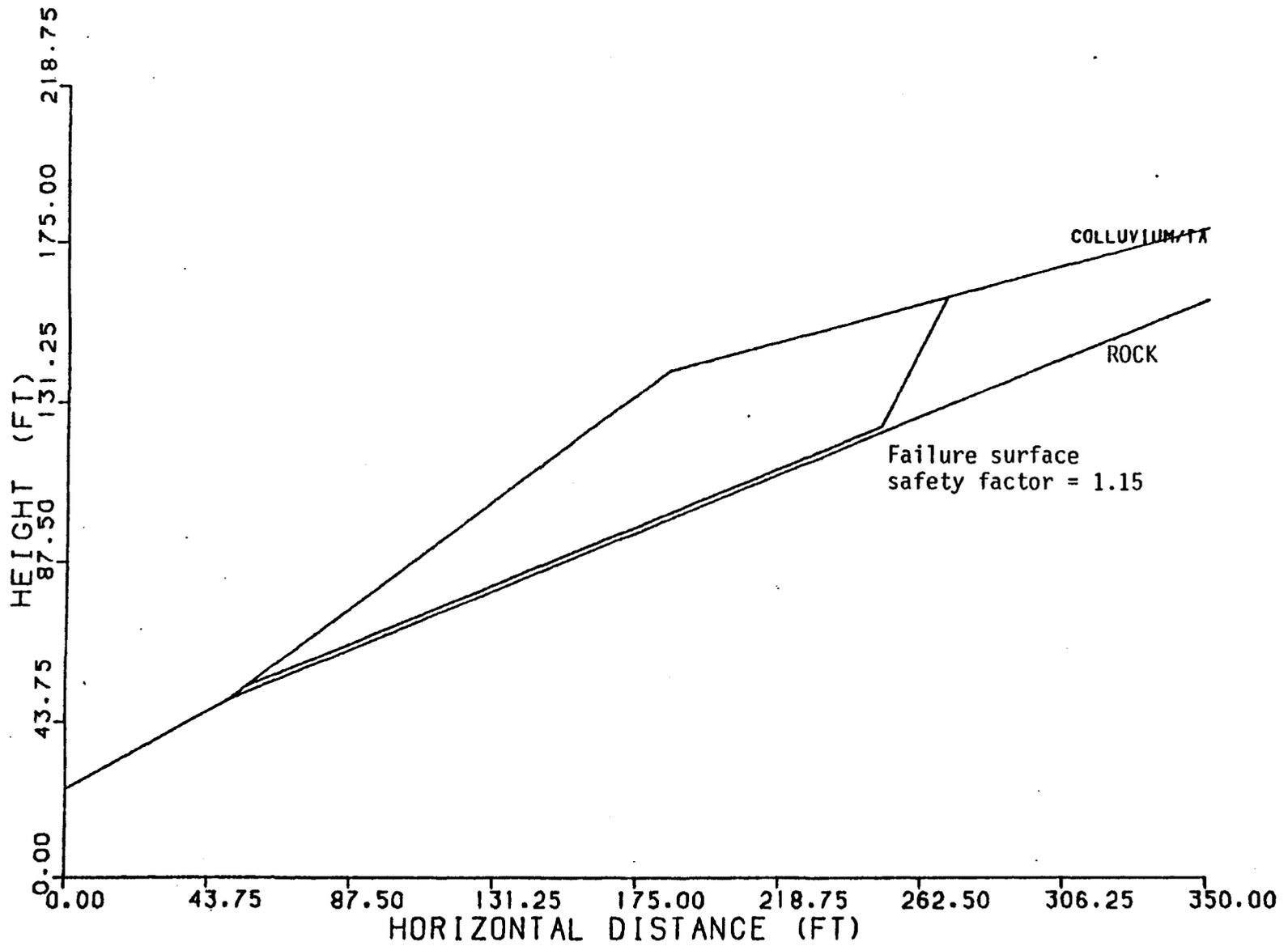


VALLEY CAMP OF UTAH , INC.
BELINE MINE
DIRECT SHEAR TEST ON DISCONTIUIITY :
SILTSTONE , 77° OPEN JOINT
FIGURE 20



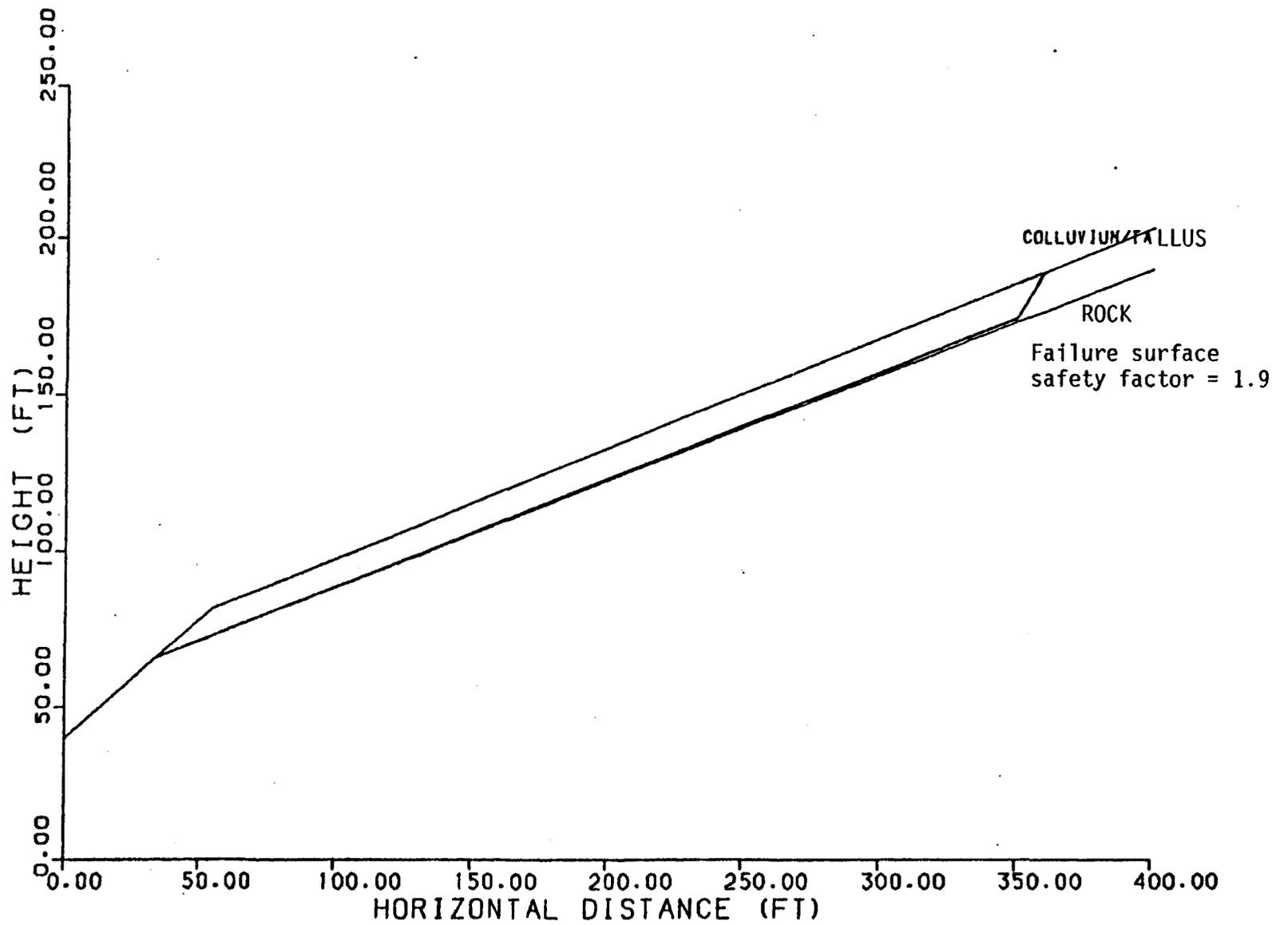
Valley Camp of Utah, Inc.
 Belina Mine
 Computer Generated Geologic
 Model of Section A-A

Figure 21



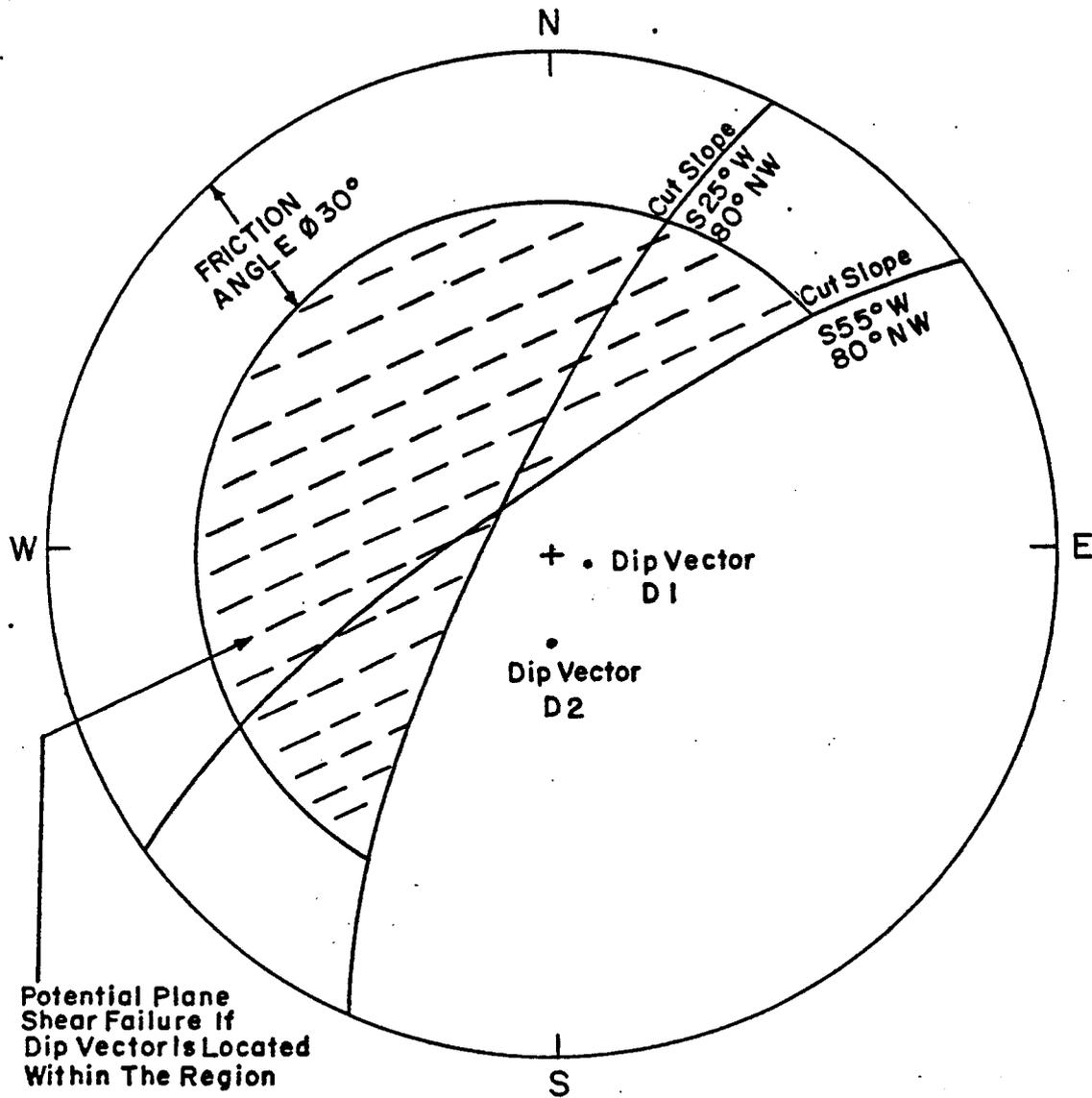
Valley Camp of Utah, Inc.
 Belina Mine
 Computer Generated Geologic
 Model of Section B-B (most critical portion)

Figure 22



Valley Camp of Utah, Inc.
Belina Mine
Computer Generated Geologic
Model of Section C-C

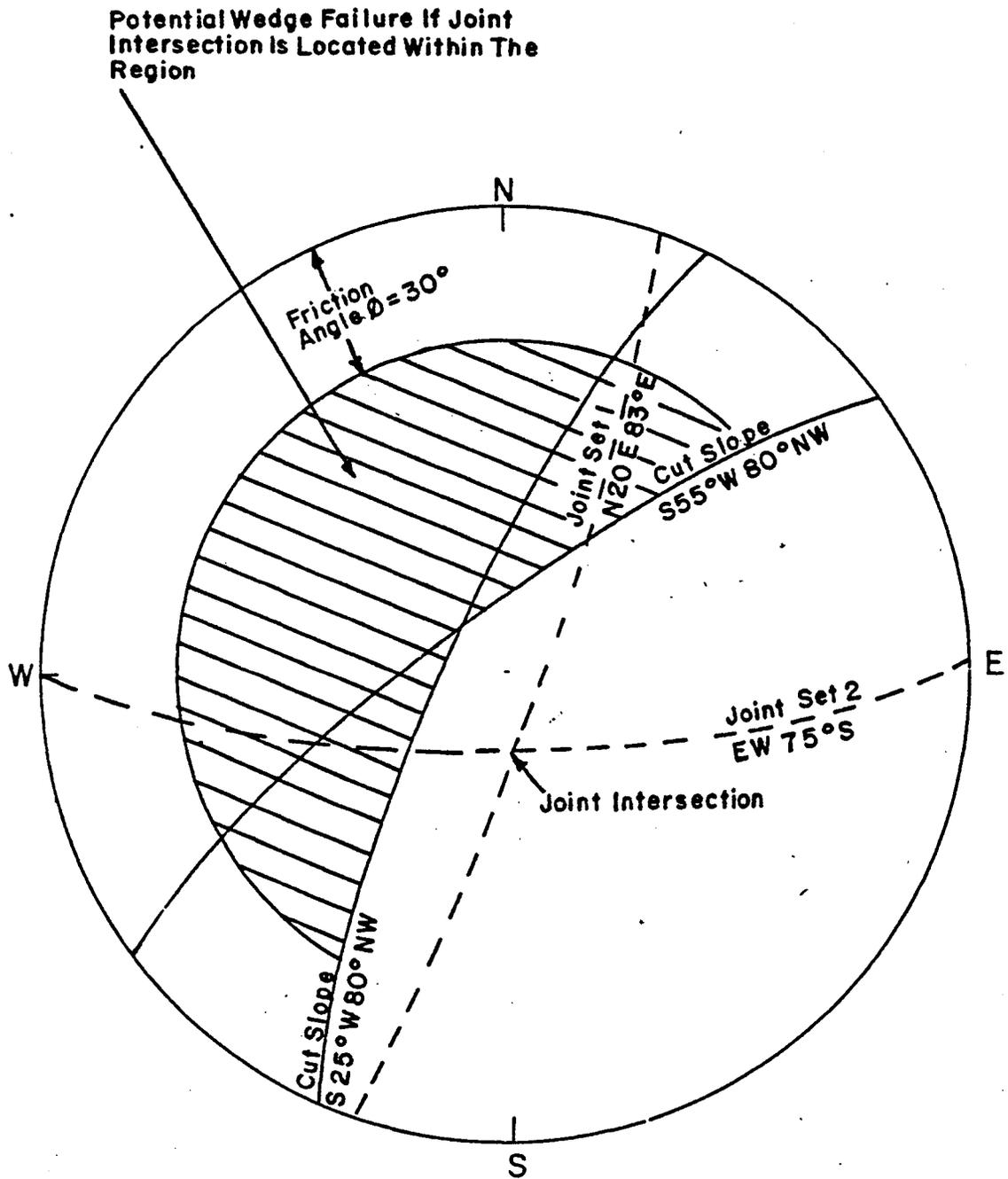
Figure 23



**VALLEY CAMP OF UTAH , INC.
BELINA MINE**

**STEREOPLOT FOR PLANE SHEAR ANALYSIS FOR
CUT SLOPE NEAR COAL LOADOUT CHUTE**

FIGURE 24

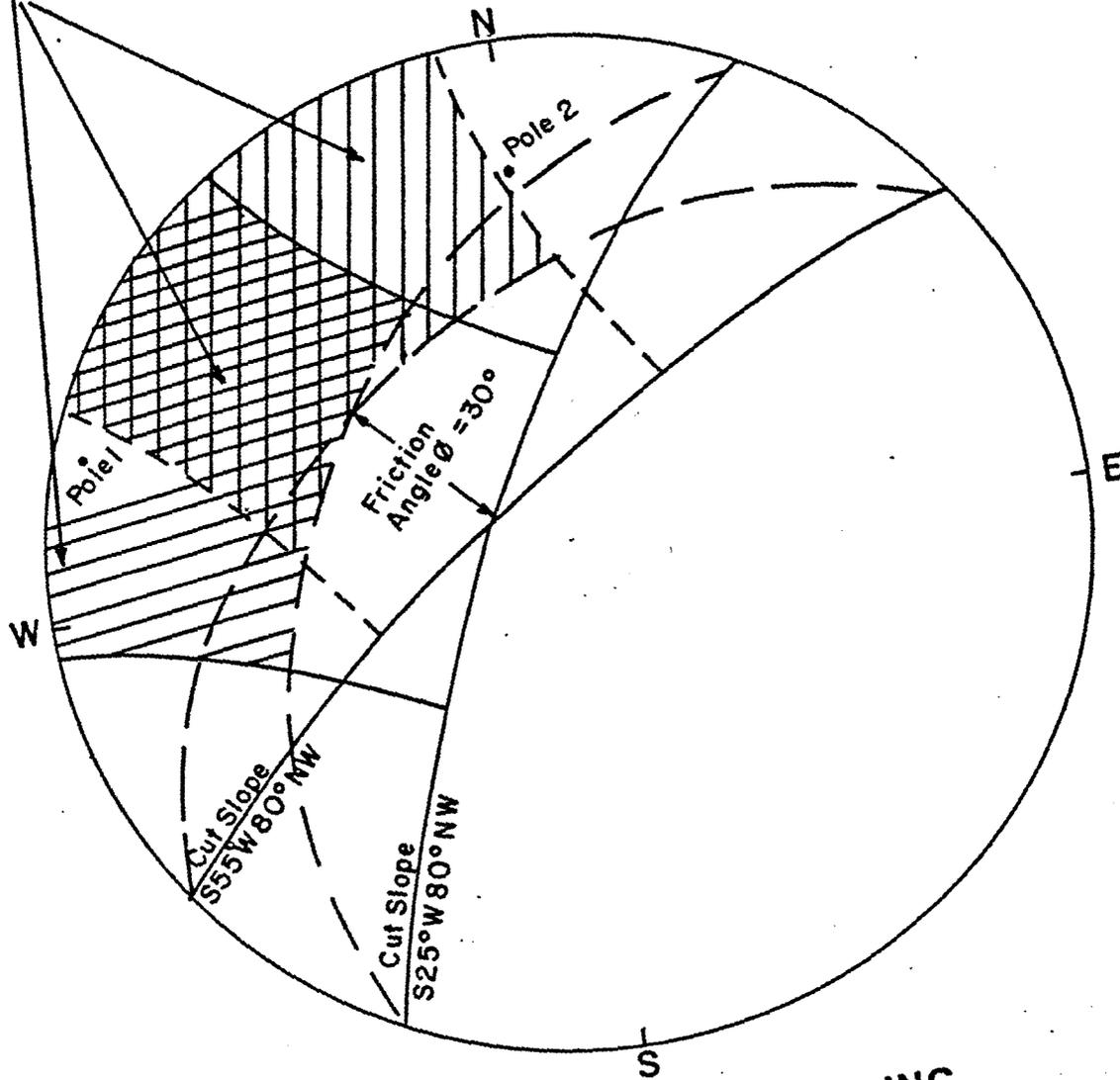


VALLEY CAMP OF UTAH, INC.
BELINA MINE

STEREOPLOT FOR WEDGE FAILURE ANALYSIS FOR
CUT SLOPE NEAR COAL LOADOUT CHUTE

FIGURE 25

Potential Toppling Failure If
Pole Is Located Within The Region



VALLEY CAMP OF UTAH, INC.
BELINA MINE
STEREOPLOT FOR POTENTIAL TOPPLING FAILURE FOR
CUT SLOPE NEAR COAL LOADOUT CHUTE

FIGURE 26

782.13 IDENTIFICATION OF INTERESTS

Valley Camp, Inc., is the permit applicant and operator on the subject properties. The principal place of business for Valley Camp, Inc., is Scofield, Utah; at Scofield Route, Helper, Utah 84526. The telephone is (801) 448-9420.

The legal or equitable owners of record of the areas to be affected by surface operations and facilities of Valley Camp, Inc., are shown on the Surface Ownership Map, Map A, Volume IV. A complete listing of Surface Owners and their addresses is shown in Figure 1-4 of this Volume.

The legal or equitable owners of record of the coal to be mined are shown on the Coal Ownership Map, Map A-1, Volume IV. A complete Coal Ownership listing is shown on Figure 1-5.

The holders of record of any leasehold interest in areas to be affected by surface operations or facilities and the holders of record of any leasehold interest to be mined are discussed and presented in detail in Section 782.15, Right of Entry and Operation Information, which is included in this volume.

There is no purchaser of record under a real estate contract of areas to be affected by Surface Operations and facilities or the coal to be mined.

The resident agent of Applicant for the purpose of service of notices and orders related to operations under this application is:

W. L. Wright
President & Chief Operating Officer
Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526
(801) 448-9456

The resident agent of Applicant pursuant to the laws of the State of Utah for service of civil process is:

C. T. Corporation
175 South Main Street
Salt Lake City, Utah 84111
(801) 364-1228

Valley Camp, Inc. is a Utah Corporation. The capital stock of Valley Camp, Inc., is 100 percent owned and controlled by The Valley Camp Coal Company. The Valley Camp Coal Company's principal corporate offices are located at 206 Seneca Street, P. O. Box 900, Oil City, Pa. 16301. The Valley Camp Coal Company is a corporation organized and existing under the laws of the State of Delaware. The capital stock of The Valley Camp Coal Company is 100 percent owned and controlled by Quaker State Oil Corporation, P. O. Box 989, Oil City, Pa. 16301. A list of Valley Camp, Inc., and its parent company's officers and directors are shown in Figures 1-2 and 1-3, respectively, of this volume, along with their addresses.

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**DIVISION OF OIL
GAS & MINING**

Valley Camp, Inc. has not operated any surface coal mining operation in the United States within the five years preceding the date of this application. Valley Camp, Inc. has operated underground coal mining operations during the stated time period under the same corporate name. A listing of those mines, associated permit numbers and regulatory agency responsible for such permits is found in Appendix B, Volume I.

Kanawha and Hocking Coal and Coke Company is also a subsidiary of the Valley Camp Coal Company, and provides rights necessary for conducting mining operations by Valley Camp of Utah, Inc., through various property agreements. A listing of the officers and directors for Kanawha and Hocking Coal and Coke Company is shown in Figure 1-3-1.

The resident agent for Kanawha and Hocking Coal and Coke Company is:

Walter L. Wright
President & Chief Operating Officer
Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526
(801) 448-9456

OFFICERS OF THE VALLEY CAMP COAL COMPANY

OFFICER	POSITION	ADDRESS
Roger A. Markle	Chairman & Chief Executive Officer	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Robert E. Olson	Vice Chairman	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Richard C. Harris	President & Chief Operating Officer	206 Seneca Street P. O. Box 900 Oil City, PA 16301
James L. Litman	Vice President of Production	P. O. Box 218 Triadelphia, WV 26059
David E. Lung	Vice President Finance & Administration Secretary & Treasurer	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Roy E. Nicely	Vice President - Marketing Assistant Secretary	206 Seneca Street P. O. Box 900 Oil City, PA 16301

Figure 1-2
(Continued)

OFFICERS OF THE VALLEY CAMP OF UTAH, INC.

OFFICER	POSITION	ADDRESS
Robert E. Olson	Chairman	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Richard C. Harris	Vice Chairman & Chief Executive Officer	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Walter L. Wright	President & Chief Operating Officer	Scofield Route Helper, UT 84526
David E. Lung	Secretary & Treasurer	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Richard K. Sager	Assistant Secretary	50 South Main, Suite 1600 P. O. Box 45340 Salt Lake City, UT 84145
John S. Kirkham	Assistant Secretary	50 South Main, Suite 1600 P. O. Box 45340 Salt Lake City, UT 84145

Figure 1-3

DIRECTORS OF THE VALLEY CAMP COAL COMPANY

DIRECTORS	ADDRESS
Lee R. Forker	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Richard C. Harris	206 Seneca Street P. O. Box 900 Oil City, PA 16301
James L. Litman	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Roger A. Markle	206 Seneca Street P. O. Box 900 Oil City, PA 16301
William J. McFate	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Robert E. Olson	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Quentin E. Wood	206 Seneca Street P. O. Box 900 Oil City, PA 16301

Figure 1-3
(Continued)

DIRECTORS OF THE VALLEY CAMP OF UTAH, INC.

<u>DIRECTORS</u>	<u>ADDRESS</u>
Richard C. Harris	206 Seneca Street P. O. Box 900 Oil City, PA 16301
David E. Lung	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Roger A. Markle	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Robert E. Olson	206 Seneca Street P. O. Box 900 Oil City, PA 16301

Figure 1-3-(1)

OFFICERS AND DIRECTORS OF KANAWHA AND HOCKING COAL AND COKE COMPANY

OFFICERS	POSITION	ADDRESS
Robert E. Olson	President	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Richard C. Harris	Executive Vice President	206 Seneca Street P. O. Box 900 Oil City, PA 16301
Wendell H. Bolden	Vice President - Coal Reserve Acquisition	P. O. Box 218 Triadelphia, WV 26059
David E. Lung	Secretary & Treasurer	206 Seneca Street P. O. Box 900 Oil City, PA 16301
John S. Kirkham	Assistant Secretary	50 South Main, Suite 1600 P. O. Box 45340 Salt Lake City, UT 84145
Roy E. Nicely	Assistant Secretary	206 Seneca Street P. O. Box 900 Oil City, PA 16301

Figure 1-3-(1)
(Continued)

OFFICERS AND DIRECTORS OF KANAWHA AND HOCKING COAL AND COKE COMPANY

DIRECTORS

ADDRESS

Roger A. Markle

206 Seneca Street
P. O. Box 900
Oil City, PA 16301

Richard C. Harris

206 Seneca Street
P. O. Box 900
Oil City, PA 16301

A. Perry Mason

206 Seneca Street
P. O. Box 900
Oil City, PA 16301

Robert E. Olson

206 Seneca Street
P. O. Box 900
Oil City, PA 16301

Valley Camp, Inc. is conducting underground coal mining operations on the subject lands pursuant to mine permit number ACT/007/014 for Utah No. 2 mine, and ACT/007/001 for Belina No. 1 mine, both issued by the State of Utah. Permits concerning surface mining operations being conducted by or applications pending for the applicant or persons listed in paragraph (b) (3) of Section 782.13 of the Permanent Regulatory Program for Surface Coal Mining and Reclamation Operations are listed in Appendix B.

The owners of surface areas contiguous to the proposed permit area are shown on the Surface Ownership Map, Map A, Volume IV. The names and addresses of surface owners contiguous to the proposed permit area are shown in Figure 1-4.

The rights to mine coal in the proposed Mine Permit Area are owned or controlled by Valley Camp, Inc.. The names and addresses of subsurface, coal owners contiguous to the proposed permit area are shown on Figure 1-5 and on the Coal Ownership Map, Map A-1, Volume IV.

The Mine Safety and Health Administration ("MSHA") identification numbers for the subject mines are:

Utah No. 2	42-00126
Belina No. 1	42-01279
Belina No. 2	42-10280

There are no properties contiguous to the proposed permit area which are subject to any pending options or other undisclosed interests held or made by the applicant.

Figure 1-4

Surface Ownership of Property Affected
and Contiguous to Permit Area

(For location of these ownerships,
see the Surface Ownership Map, Map A, Volume IV)

United States of America, Dept. of Agriculture, U.S. Forest
Service, 350 East Main Street, Price, Utah, 84501

Kanawha & Hocking Coal and Coke Company, P.O. Box 218,
Triadelphia, West Virginia 26059

Milton A. & Bessie Oman, 61 South Main, Salt Lake City, Utah
84115

Jack Otani, P. O. Box 501, Clear Creek, Utah 84517

Della & Hilda Madsen, Meadow, Utah 84644

Hellenic Orthodox Church, Price, Utah 84501

Calvin Jacob, 754 S. Cherry., Orem, Utah 84057

Helen & Nick Marakis, P.O. Box 576, 150 E. 1st South &
P. O. Box 805, 160 E. 1st South, Price, Utah

George Telonis, c/o Angelo Georgedes, 761 N. 300 E., Price,
Utah 84501

Robert & Ellen Radakovich, 340 N. 600 E., Price, Utah 84501

L. Clan Stilson, 537 S. 560 E. Orem, Utah 84057

Alpine School District, 50 North Center, American Fork, Utah

Scott Cook, Fountain Green, Utah 84632

Ted Miller, c/o L. Clan Stilson, 537 S. 560 E., Orem, Utah
84057

Rescu-Med, Inc., P. O. Box 1115, Provo, Utah 84601

Figure 1-5

Coal Ownership of Property Affected
And Contiguous to Permit Area

(For location of these ownerships,
see Coal Ownership Map, Map A-1, Volume IV)

United States of America, Dept. of Agriculture, U.S. Forest
Service, 350 E. Main Street, Price, Utah 84501

Kanawha & Hocking Coal and Coke Company, P.O. Box 218
Triadelphia, West Virginia 26059

United States of America, Dept. of the Interior, Bureau of
Land Management, University Club Bldg., Salt Lake City, Utah
84138

Utah Power and Light, P.O. Box 899, Salt Lake City, Utah
84110

Western Reserve Coal Company, Inc., c/o Dean Phillips, P.O.
Box 188, Lewiston, Mo. 63452

Kaiser Steel Corp., 300 Lakeside Drive, Oakland, California
94666

Coastal States Energy Co., Nine Greenway Plaza, Houston,
Texas 77046

Noal Tanner, 2796 No. Arapahoe Lane, Provo, Utah 84601

Carbon County, County Courthouse, Price, Utah 84501

Stagstead, Inc., 4301 No. MacArthur, Oklahoma City, Oklahoma
73122

782.14 COMPLIANCE INFORMATION

Neither Valley Camp, Inc., nor any subsidiary, affiliate or persons controlled by or under common control with Valley Camp, Inc., have had a Federal or State Mining permit suspended or revoked in the last five years.

Neither Valley Camp, Inc. nor any of the entities or persons referred to in this section have had a mining bond or similar security deposited in lieu of bond forfeited.

Valley Camp, Inc. has not received any violations with respect to surface coal mining operations, but has received the following violations concerning underground coal mining operations:

1. The Office of Surface Mining issued to Valley Camp, Inc., on December 4, 1979, a Notice of Violation, No. 79-5-3-40, of the Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) with respect to three (3) violations. A description of the Violations and information regarding their present status is as follows:

- (a) Violation 1 of 3

- "Material placed on downslope below road cut", in violation of 30 C.F.R. 211.40 (b) and 717.14 (c).

Abatement of this violation was "immediate cessation of such activities" on date of issuance.

Based upon an assigned total of 32 penalty points, a civil penalty of \$1,200.00 was later assessed.

(b) Violation 2 of 3

"Failure to pass surface drainage from the disturbed areas through sedimentation ponds", in violation of 30 C.F.R. 717.17 (a) and 211.40 (b). Abatement action included the installation of 60 feet of 24" C.M.P. and establishment of a surface ditch from the outflow end of the culvert to a sedimentation pond, and was completed on December 8, 1979. Based upon an assigned total of 35 penalty points, a civil penalty of \$1,500.00 was later assessed.

(c) Violation 3 of 3

"Failure to maintain access and haulroads as required." In violation of 30 C.F.R. 717.17 (j) (1) and 211.40 (b). Abatement action consisted of cleaning snow and ice from ditchline for a distance of 20 feet above culvert and from culvert inlet. Abatement action was completed on December 7, 1980.

Based upon an assigned total of 32 points, a civil penalty of \$1,200.00 was later assessed.

Pursuant to 30 C.F.R. 723.17, a request for a conference to review N.O.V. 79-5-3-40 was made on January 28, 1980. Conference approval was given and later held on April 10, 1980, under the direction of an O.S.M. Conference Officer. The conference resulted in "no change" for Nos. 1 of 3 and 2 of 3. However, the total penalty points for No. 3 of 3 was reduced from 32 to 30, and resulted in the \$1,200.00 civil penalty assessment being withdrawn. A check in the amount of \$2,700.00 was issued to the Assessment Office of the O.S.M. on July 16, 1980. A petition for formal hearing was then filed on July 22, 1980. The hearing was held on December 9, 1980, with an Administrative Law Judge presiding. At this time, a decision from the hearing has not yet been filed.

2. On January 8, 1980, the Office of Surface Mining issued to Valley Camp, Inc. a Notice of Violation, No. 80-5-18-7, of the SMCRA of 1977 (PL 95-87) with respect to one (1) violation. A description of the violation and information regarding present status follows:

- (a) Violation 1 of 1

"Failure to maintain culvert which drains access road", in violation of 30 C.F.R. 717.17 (j) (3) (ii). Abatement action consisted of cleaning snow from the culvert inlet, and was completed January 9, 1980.

Based upon an assigned total of 17 penalty points, no civil penalty was assessed.

A petition for formal hearing was filed on April 28, 1980, followed by the filing of an amended petition of June 12, 1979.

The hearing on this N.O.V. was held concurrently with that of N.O.V. 79-5-3-40 on December 9, 1980. The decision is pending.

3. On June 23, 1980, the Office of Surface Mining issued to Valley Camp, Inc., a Notice of Violation, No. 80-5-7-15, of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description of the violation and information regarding present status follows:

- (a) Violation 1 of 1

"Failure to salvage topsoil", in violation of 30 C.F.R. 717.20 (a).

Abatement action consisting of reclaiming drill road and covering it with topsoil was completed on July 22, 1980.

This violation has been terminated, but no further action has occurred.

4. On August 7, 1980, the Division of Oil, Gas and Mining, issued to Valley Camp, Inc., a Notice of Violation, No. 80-1-3-2, of the SMCRA of 1977 (P.L. 97-85) with

respect to two (2) violations. A description of the violations and present status information follows:

(a) Violation 1 of 2

"Failure to pass surface drainage from the disturbed area through a sediment pond", in violation of 30 C.F.R. 717.17 (a).

Abatement action consisted of diverting drainage from approach road into sediment pond via surface ditch, removal of a power pole from within the pond limitations and re-shaping the interior slopes of the south and east banks. Abatement was completed on December 19, 1980.

A proposed point total and civil penalty assessment was levied on October 16, 1980, of 32 and \$1,200.00, respectively. On November 24, 1980, an amended assessment was issued proposing 11 points and the civil assessment being dependent upon the total penalty points of both violations.

(b) Violation 2 of 2

"Failure to maintain ditches and culverts, in violation of 30 C.F.R. 717.17 (j) (3) (ii).

Abatement action consisted of cleaning a surface ditch and a culvert inlet and was completed on August 11, 1980.

A proposed point total of 28 and a civil penalty of \$800.00 were levied on October 16, 1980. On November 24, 1980, an amended assessment was issued proposing 11 points, with a total civil penalty being determined by the total penalty points of both violations. A conference was held on December 5, 1980, at the Offices of the Division. The conference resulted in "no change" for Violation 1 of 2, and a reduced point total from 11 to 9 for Violation 2 of 2. The end result was a reduction in the total penalty points from 22 to 20 and a reduction in the civil penalty assessment from \$240.00 to \$200.00. This assessment has been paid.

5. On December 10, 1980, the Office of Surface Mining issued to Valley Camp, Inc., a Notice of Violation No. 80-V-15-12 of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description and status follow:

- (a) Violation 1 of 1

"Operating without an approved permit", in violation of P.L. 95-87, Section 502 (a) and 211.10 (c).

This Notice of Violation was vacated on December 17, 1980.

No. 81-2-17-1 of the SMCRA of 1977 (P.L. 95-87) with respect to one (1) violation. A description and status follow:

(a) Violation 1 of 1

"Operating without a permit, failure to conduct mine operations in accordance with an approved mine plan, unauthorized disposal of underground development waste outside the permit area", in violation of U.C.A. 1953 40-10-9 (1) U.M.C. 771.19, U.M.C. 817.71 (a).

Abatement action consisted of immediate cessation of waste removal from permit area, and was so done in the presence of the Division inspectors. A proposed total of 23 points and civil assessment of \$260.00 was levied on January 5, 1982.

A conference was held on February 2, 1982, at the offices of the Division. As a result of the conference, the final assessment for points and civil assessment was reduced to 0 points and no fine. This N.O.V. was vacated by the Division on May 3, 1982.

10. On July 21, 1982, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 82-1-9-2 of the SMCRA of 1977 (P.L. 95-87), with respect to two (2) violations. A description and status follow:

(a) Violation 1 of 2

"Failure to operate in accordance with approved plan, failure to maintain sediment" in violation of U.M.C. 817.46 (e), U.M.C. 771.19 and U.M.C. 817.45. The violation applying to the Load-out area of the operation.

The requested remedial action consisted of "cleaning sediment pond, including the removal of coal and establishing approved volume of pond." The allotted time for accomplishing abatement activity was thirty (30) days, no later than August 20, 1982.

On August 20, 1982, a request for extension of the abatement period was approved by the Division to September 20, 1982. The proposed point total of 32 points and civil assessment of \$440.00 were levied on August 31, 1982. An assessment conference for this part of the N.O.V. was made on September 24, 1982. On September 27, 1982, an additional extension of abatement period request was approved to October 19, 1982. On September 28, 1982, a check in the amount of \$440.00 was issued to the Division. This part of the N.O.V. No. 82-1-9-2 was terminated on October 20, 1982. An assessment conference was held at the offices of the Division on

November 15, 1982. The conference resulted in "no change" in either the point total or assessment amount. No further contest of this N.O.V. has occurred.

(b) Violation 2 of 2

"Failure to meet effluent limitations" in violation of U.M.C. 817.41 (c). The violation applying to the Load-out surface water monitoring points, and the Belina Complex mine water discharge.

Remedial action was to "meet effluent limitations" and "reconstruct filter pond" at the Utah No. 2 and Belina sites, respectively. Abatement of this violation was set for sixty (60) days, no later than September 19, 1982.

On August 31, 1982, a proposed assessment of 46 points and \$840.00 was issued. A request for an assessment conference was made on September 24, 1982, and a check in the amount of \$840.00 was issued to the Division on September 28, 1982. A request for extension of the abatement period was approved on September 27, 1982, and extended to November 7, 1982. An assessment conference was held on November 15, 1982, at the offices of the Division, and resulted in the point total being reduced to a "0", and the civil penalty of \$840.00 being reduced to \$0.00.

The abatement period was also extended to July 1, 1983.

On January 13, 1983, a refund in the amount of \$840.00 was received from the Division. A request for interest on this amount, for the period of retention by the Division, has been made.

11. On October 1, 1982, the Division of Oil, Gas & Mining issued to Valley Camp, Inc., a Notice of Violation, No. 82-4-11-1 of the SMCRA of 1977 (P.L. 95-87), with respect to one (1) violation. A description and status report follow:

(a) Violation 1 of 1

"Failure to maintain sedimentation ponds to prevent short circuiting and ensure that water discharged from the disturbed area complies with all State and Federal water quality limitations. Failure to meet applicable State and Federal effluent limitations", Provisions of the Regulations violated being: U.C.A. 40-10-18 (2)(i)(ii), U.M.C. 817.41 (c), U.M.C. 817.42 (a) (7), U.M.C. 817.42 (c) and 817.46 (e). The violation applying to the Utah No. 2 Load-out area. Remedial action required consisted of "repairing sediment ponds so as to ensure that they function as designed, and so that discharge from the sediment ponds will comply with all applicable ef-

10 February 1983

fluent limitations." The abatement deadline was set at October 8, 1982; however, abatement activity occurred on October 1, 1982. This violation was terminated on October 4, 1982, by the Division. A proposed assessment of 28 points and \$360.00 was issued on October 28, 1982. A check in the amount of \$360.00 was issued to the Division on November 12, 1982.

An assessment conference was held at the offices of the Division on December 21, 1982. Final assessment for this violation, as a result of the conference, was 10 points and \$180.00. A refund in the amount of \$180.00 was received from the Division on January 13, 1983.

A request for allowable interest on the full amount of the assessment, for the period of retention, has been made.

782.15 RIGHT OF ENTRY AND OPERATION INFORMATION

Valley Camp, Inc. has title and interest to the subject coal lands by way of warranty deeds, bills of sale, assignments, leases and easements.

United States Coal Leases

The assignments pertaining to the United States Coal Leases are listed below:

Lease No.	Associated Acreage	Issued to	Date of Issuance
U-020305	1,439.40	Emmett K. Olson	3/1/62
U-017354	1,028.47	Independent Coal & Coke Co.	1/1/62
U-044076	2,367.82	Armeda N. McKinnon	9/1/65
U-067498	501.70	Independent Coal & Coke Co.	1/1/62

These lease numbers and property locations can be found on the Coal Ownership Map, Map A-1, Volume IV. The properties are described as follows:

Lease No. U-020305 1,439.40 acres

T13S, R6E

Sec 13: Lot 7 (SW 1/4 SW 1/4)
 Sec 14: SE 1/4 SE 1/4
 Sec 23: E 1/2 E 1/2
 Sec 24: W 1/2 NW 1/4, SE 1/4 NW 1/4, S 1/2
 Sec 25: All Lots 1 thru 4, S 1/2 N 1/2, S 1/2
 Sec 26: E 1/2 E 1/2

Lease No. U-017354 1,028.47 acres

T13S, R6E

Sec. 36: Lots 1 thru 4, N 1/2 S 1/2, N 1/2

T13S, R7E

Sec. 31: N 1/2 SW 1/4

T14S, R6E

Sec. 1: E 1/2 NE 1/4, NE 1/4 SE 1/4

T14S, R7E

Sec. 6: NW 1/4

Lease No. 044076 2,367.82 acres

T13S, R6E

Sec. 26: W 1/2 E 1/2, W 1/2

Sec. 27: Lots 1 thru 4, E 1/2, E 1/2 W 1/2
(excluding Lawrence Reservoir)

Sec. 34: Lots 1 thru 8, S 1/2

Sec. 35: Lots 1 thru 7, NE 1/4, E 1/2 NW 1/4, NE 1/4
SW 1/4, N 1/2 SE 1/4

Lease No. 067498 501.70 acres

T14S, R7E

Sec. 6: Lots 2, 6, 7, SW 1/4 NE 1/4, W 1/2 SE 1/4,
E 1/2 SW 1/4

Sec. 7: Lots 1, 2, 4, E 1/2 NW 1/4

For description of how leases passed to Valley Camp, Inc., see
Appendix A.

Carbon County Coal Leases

The assignments pertaining to the lease from Carbon County,
Utah, are as follows:

County Lease	Associated Acreage	Issued to	Date of Issuance
Carbon Co. Coal Lease	361.16	North American Coal Corp.	5/1/69

The property is described as follows: (For location see Coal Ownership Map, Map A-1, Volume IV)

County Lease 361.16 acres

T13S, R6E

Sec 24: W 1/2 NE 1/4, SE 1/4 NE 1/4

T13S, R7E

Sec 19: SW 1/4 SW 1/4

Sec 30: W 1/2 W 1/2

Sec 31: NW 1/4 NW 1/4

For description of how leases passed to Valley Camp, Inc. see Appendix A.

Private Coal Leases

The assignments pertaining to the private sector are as follows:

Private Lease	Approximate Acreage	Issued to	Date of Issuance
Kanawha & Hocking Coal & Coke Co.	480	Valley Camp, Inc.	8/1/74
Kanawha & Hocking Coal & Coke Co.	80	Valley Camp, Inc.	1/8/78
Kanawha & Hocking Coal & Coke Co.	80	Valley Camp, Inc.	1/1/81

This property is described as follows: (For location, see Coal Ownership Map, Map A-1, Volume IV).

Private Lease 480 acres

T13S, R7E

Sec 8: E 1/2 E 1/2

Sec 9: W 1/2 SW 1/4

Sec 16: NW 1/4 NE 1/4, NE 1/4 NW 1/4, W 1/2 NW 1/4
NW 1/4 SW 1/4

Sec 17: NE 1/4 NE 1/4

Private Lease 80 acres

T13S, R7E

Sec. 30: SE 1/4 SW 1/4

Sec. 31: SW 1/4 NW 1/4

Private Lease 80 acres

T13S, R7E

Sec. 31: S 1/2 SW 1/4

The right to enter federal coal leaseholds conveyed by the United States Government is conferred to the lessees by the Mineral Leasing Act of 1920 and the leases themselves. The right of entry for private and county coal leases is provided for through the individual leases.

The right to construct, operate and maintain access roads and a coal conveyance system from the mine portal area through Whiskey and Eccles Canyons, the right to operate and maintain coal storage and load-out facilities near the mouth of Greens Canyon, together with all other uses in connection

with ongoing operations of the lessee are conferred by the following:

1. A surface lease dated January 1, 1979, and entered into between and by Della L. Madsen and Robert G. and Hilda M. Hammond and Kanawha and Hocking Coal and Coke Company allows use, possession and occupancy of the subject lands for uses in connection with the performance of general business procedures by the lessee.

T13S, R7E

Section 19: E 1/2 SE 1/4, SW 1/4 SE 1/4, SE 1/4 SW 1/4
Section 20: W 1/2 SW 1/4
Section 29: NW 1/4 NW 1/4
Section 30: E 1/2, NE 1/4 NW 1/4

By a sub-lease effective January 1, 1981, Kanawha and Hocking Coal and Coke Company granted Valley Camp, Inc., the right to construct, operate and maintain access roads and conveyor systems over and across said lands.

2. A surface lease and right-of-way agreement dated August 14, 1975, and entered into and by Milton A. and Bessie G. Oman and Kanawha and Hocking Coal and Coke Company allows the construction, use and maintenance and other related activities of an access road; together with a right-of-way to construct, use, maintain, and other activities related to installation, use, repair, and removal of a conveyor system, electric transmission line and communication lines with poles and appurtenances, all lying within portions of Sections 17, 18, 19, 20 and 30, T13S, R7E.

Said lease also provides to the lessee, a forty (40) acre tract lying within portions of Sections 19, 20, and 30, T13S, R7E, for the purpose of conducting underground coal mining operations and related activities, including, without limitation, the construction of portals, buildings, and facilities useful to such operations. The rights under this instrument were sub-leased in their entirety to Valley Camp, Inc., by a sub-lease effective January 1, 1981.

3. A surface lease and easement agreement dated August 6, 1976, and entered into and by Helen, Nick and Koula Marakis, and Kanawha and Hocking Coal and Coke Company allows the exclusive use and possession of the surface of the subject lands for access to and egress from all other properties together with all activities related to access roads and conveyor systems required for coal transportation over, in, under, across, and along leased acreage.

T13S, R7E

- Section 8: E 1/2 E 1/2 less 2 acres, and less highway right-of-way.
- Section 9: W 1/2 SW 1/4, less Carbon County Railway right-of-way and less Utah Power and Light Company right-of-way.
- Section 16: W 1/2 less 18 acres for channel change easement
- Section 16: W 1/4 E 1/2
- Section 17: E 1/2 NE 1/4, NE 1/4 SE 1/4 less 8.99 acres highway right-of-way, less LDS church property of 16.75 acres, less 1.52 channel change easement
- Section 17: That portion of S 1/2 SW 1/4 lying North of Eccles Canyon Creek
- Section 18: That portion of S 1/2 SE 1/4 and SE 1/4 SW 1/4 lying North of Eccles Canyon Creek.

By a letter agreement dated September 13, 1976, Kanawha and Hocking Coal and Coke Company transferred to Valley Camp, Inc., the rights necessary to conduct its proposed operations within the mine plan area.

4. An easement effective January 1, 1981, between Kanawha and Hocking Coal and Coke Company, and Valley Camp, Inc., grants Valley Camp, Inc., the right to construct, operate, and maintain access roads, conveyor systems and an office building with related facilities on, over and within the following described lands:

T13S, R7E, SLB&M

Section 17: NW 1/4 NE 1/4, SW 1/4 NE 1/4, less
and excluding the Kosec property
containing approximately 2 acres.
NW 1/4 SE 1/4

Section 19: NE 1/4 SW 1/4

5. An easement effective January 1, 1981, between Kanawha and Hocking Coal and Coke Company and Valley Camp, Inc. grants Valley Camp, Inc., the right to construct, operate and maintain access roads, conveyor systems and railroad trackage with related facilities over and across portions of the following described lands:

T13S, R7E, SLB&M

Section 17: S 1/2 SE 1/4

There are no surface or subsurface rights in the permit area which are subject to any pending litigation. Surface ownership is shown on Map A, Volume IV.

782.16 RELATIONSHIP TO AREAS DESIGNATED UNSUITABLE FOR
MINING

The proposed permit area is not within an area designated unsuitable for underground coal mining activities under 30 CFR 764, 765, 769. Futhermore, the proposed permit area is not under study for designation concerning the unsuitability of the area for mining.

The mine plan area is in the Moab District of the Price River Resource Area, Bureau of Land Management, Department of Interior.

A portion of the mine plan area is situated within the Manti-LaSal National Forest, U.S. Forest Service, U.S. Department of Agriculture.

Valley Camp, Inc., does not plan to conduct or to locate surface operations or facilities within 300 feet of an occupied dwelling. There are no occupied dwellings within the mine plan area.